

Sheffield Hallam University

Stress and coping : A study of elite sports coaches.

OLUSOGA, Peter F.

Available from the Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/20773/>

A Sheffield Hallam University thesis

This thesis is protected by copyright which belongs to the author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

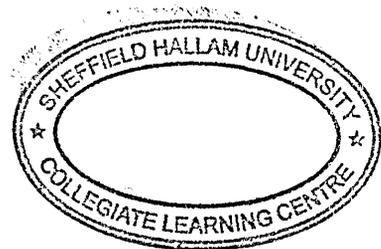
Please visit <http://shura.shu.ac.uk/20773/> and <http://shura.shu.ac.uk/information.html> for further details about copyright and re-use permissions.

Stress & Coping: A Study of Elite Sports Coaches

Peter Olusoga

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy

October, 2011



ProQuest Number: 10702875

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 10702875

Published by ProQuest LLC (2017). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

Abstract

This thesis provided an in-depth investigation into the phenomenon of stress within the unique culture of elite sports coaching. The overall aim of this thesis, and the series of studies contained herein, was to bridge the gap between research and practice by providing practical recommendations for sport organisations and sport psychology practitioners, informing coach education and development programmes, and developing an intervention aimed at helping coaches on the pathway to elite sport to develop psychological skills and attributes to help them coach effectively under pressure. The aim of the first phase of the research programme (studies one and two) was to provide an in-depth examination of elite coaches' experiences of stress. Specifically, using interviews with 12 world class sports coaches as the method of data collection, study one identified a wide range of organisational and competitive stressors. Findings suggested that these stressors were often experienced in combination rather than in isolation, and conflict within the organisation emerged as a key theme, indicating that communication skills might be important in helping coaches function effectively as part of a wider organisational team. Study two explored the same 12 coaches' responses to stressors, the perceived effects of experiencing stress, and the coping strategies coaches employed. Coaches discussed psychological reactions (e.g., negative cognitions, emotional responses), and suggested that their negative responses to stress could be projected onto their athletes. Coaches described a limited use of psychological skills to cope with stressors and tended to avoid stressors that provoked strain responses. Taken together, the findings of studies one and two highlighted the need for coaches to be aware of the demands that elite coaching might impose, and have a range of skills and strategies to help them manage these diverse demands. The aim of the second phase of the research programme (studies three and four) was to bridge the gap between research and practice. Specifically, the purpose of study three was to investigate successful coaches' perceptions of the factors that enable them to coach in a stressful Olympic environment. Data collection took the form of interviews with eight Olympic coaches from one of Great Britain's most successful Olympic teams (based on medal success). Psychological attributes (e.g., emotional control), preparation, (e.g., strategic approach), and coping at the event (e.g., team support), were factors that coaches perceived as important for successful Olympic coaching. Additionally, coaches offered specific suggestions for the training and development of those on the development pathway to elite sports coaching. The final study described the design, implementation and evaluation of a 'Coaching under Pressure' mental skills training (MST) intervention for sports coaches. While statistical significance was only observed for a small number of the observed variables, the practical significance of the intervention for coaches was underlined in the study. Specifically, coaches indicated that they understood the importance of being mentally prepared for the demands of coaching, that the programme was useful for them, that they had been satisfied with the MST programme, and, importantly, that they had experienced positive changes in their coaching performance as a result of the intervention. From a theoretical perspective, the findings of this thesis provided support for the complex nature of the stress transaction and have highlighted important considerations for the study of stress in coaching populations. From a practical perspective, sport organisations should be aware of the stressors that coaches can experience and ensure that coaches have the opportunity to interact and share best practice with their colleagues, and have access to psychological skills training at all stages of their careers.

Acknowledgments

There are several people without whom I could not have completed this thesis, and I would like to take this opportunity to thank each of them for their valued contributions. My thanks are extended to my Director of Studies, Prof. Ian Maynard whose expertise and guidance always helped to keep the project on track, and whose ability to spot typos is second to none. I would like to thank Dr. Joanne Butt, whose guidance, support, and friendship have played a considerable part in my development as researcher and writer, and I would also like to give my thanks to Dr. Kate Hays for her invaluable support, feedback, and encouragement throughout the process.

While the guidance I have received from colleagues along the way has been vital, I would not be where I am today without the support of my family. Thank you Mum, for your unflinching love and support. I really don't know how you managed it, but getting me from St. Cuthbert's Village to a PhD is nothing but remarkable. I'd also like to thank my aunt, Verna Kilburn, who was instrumental in encouraging me to return to academia, as well as each and every one of my fantastic siblings for always looking after me. I'd also like to mention Mia, Lucas, Isaac, and Fen, who were born while I was writing this, and who never failed to make me smile.

I've also had the support of a fantastic group of friends who I must thank for their help. In particular, thanks to all those with whom I have shared an office at Sheffield Hallam for allowing me to vent (Gemma, and various Andrews), Liam for mostly attempting to keep me sane... mostly, and basically all the other friends who I have laughed with over the last five years.

Finally, Alice, thank you for everything, for supporting me, for putting up with me, for taking care of me, and for occasionally making me laugh.

Table of Contents

Abstract	..	..	..	..	..	..	..	..	..	iii
Acknowledgements	..	..	..	..	..	..	..	..	..	iv
Table of Contents	..	..	..	..	..	..	..	..	..	v
List of Figures	..	..	..	..	..	..	..	..	..	xi
List of Tables	..	..	..	..	..	..	..	..	..	xii
List of Appendices	..	..	..	..	..	..	..	..	..	xiii
Peer Reviewed Work Related to the Thesis	..	..	..	..	..	..	..	..	..	xv
Chapter I: Introduction	..	..	..	..	..	..	..	..	..	2
1.1 Stress in Sport	..	..	..	..	..	..	..	..	..	2
1.2 Purpose of the Thesis	..	..	..	..	..	..	..	..	..	5
1.3 Structure of the Thesis	..	..	..	..	..	..	..	..	..	7
1.3.1 Chapter II (Review of literature)	..	..	..	..	..	..	..	..	..	9
1.3.2 Chapter III (Study 1)	..	..	..	..	..	..	..	..	..	9
1.3.3 Chapter IV (Study 2)	..	..	..	..	..	..	..	..	..	9
1.3.4 Chapter V (Study 3)	..	..	..	..	..	..	..	..	..	10
1.3.5 Chapter VI (Study 4)	..	..	..	..	..	..	..	..	..	11
1.3.6 Chapter VII (Summary, discussion and conclusion)	..	..	..	..	..	..	..	..	..	11
1.4 A Note on Study Methods	..	..	..	..	..	..	..	..	..	11
Chapter II: Review of Literature	..	..	..	..	..	..	..	..	..	14
2.1 Introduction	..	..	..	..	..	..	..	..	..	14
2.2 Definitional and Conceptual Issues	..	..	..	..	..	..	..	..	..	15
2.2.1 Stimulus definitions of stress	..	..	..	..	..	..	..	..	..	16
2.2.2 Response based definitions	..	..	..	..	..	..	..	..	..	18
2.2.2.1 Criticisms of stimulus and response definitions	..	..	..	..	..	..	..	..	..	19
2.2.3 Individual differences	..	..	..	..	..	..	..	..	..	20
2.2.4 Stress as an interaction	..	..	..	..	..	..	..	..	..	21
2.2.5 A transactional theory of stress	..	..	..	..	..	..	..	..	..	22
2.2.5.1 Primary and secondary appraisal	..	..	..	..	..	..	..	..	..	23
2.2.5.2 Coping..	..	..	..	..	..	..	..	..	..	24
2.2.5.3 Coping dimensions	..	..	..	..	..	..	..	..	..	25
2.2.6 A meta-model of stress, emotions, and performance	..	..	..	..	..	..	..	..	..	27
2.2.7 Summary	..	..	..	..	..	..	..	..	..	30
2.3 Occupational Stress	..	..	..	..	..	..	..	..	..	32
2.3.1 Identifying and classifying work stressors	..	..	..	..	..	..	..	..	..	33
2.3.2 Identifying and classifying work strain	..	..	..	..	..	..	..	..	..	37
2.4 Stress in Sport	..	..	..	..	..	..	..	..	..	40
2.4.1 Organisational stress	..	..	..	..	..	..	..	..	..	42
2.4.2 "Coaches are performers too"	..	..	..	..	..	..	..	..	..	47
2.5. Coaching Stress Research	..	..	..	..	..	..	..	..	..	48
2.5.1 Coaching stressors	..	..	..	..	..	..	..	..	..	48
2.5.1.1 Issues in coaching stress research	..	..	..	..	..	..	..	..	..	50
2.5.2 Responses and effects of coaching stressors	..	..	..	..	..	..	..	..	..	53
2.5.3 Coping with stressors	..	..	..	..	..	..	..	..	..	55
2.6 Summary and Aims of the Thesis..	..	..	..	..	..	..	..	..	..	58

Chapter III: Study 1. Stress in Elite Sports Coaching: Identifying Stressors	62
3.1 Introduction	62
3.2 Study Aims	67
3.3 Method	67
3.3.1 Participants	67
3.3.2 Procedure	68
3.3.3 Interview guide	69
3.3.4 Data analysis	69
3.4 Results	71
3.4.1 Conflict	71
3.4.1.1 Management cohesion	71
3.4.1.2 Interference	75
3.4.1.3 Forced collaborations	75
3.4.2 Pressure and expectation	76
3.4.2.1 Self-imposed pressure.. .. .	76
3.4.2.2 Outcome pressures	76
3.4.3 Managing the competitive environment	76
3.4.3.1 Unforeseen events	77
3.4.3.2 Managing time at competition	77
3.4.4 Athlete concerns.. .. .	77
3.4.4.1 Professionalism	77
3.4.4.2 Commitment	78
3.4.4.3 Performing to potential	78
3.4.5 Coaching responsibilities to athletes	78
3.4.5.1 Meeting athletes' training needs	79
3.4.5.2 Managing athletes psychologically	79
3.4.6 Consequences of the sport's status	80
3.4.6.1 Budget concerns/amateur status	80
3.4.6.2 Recognition	80
3.4.7 Competition preparation	80
3.4.7.1 Demands of maintaining elite standards	81
3.4.7.2 Preparation for major events	81
3.4.8 Organisational management	81
3.4.9 Sacrificing personal time	82
3.4.10 Isolation	82
3.5 Discussion.. .. .	83
3.5.1 Strengths and limitations	88
3.6 Conclusions	89
Chapter IV: Study 2: Stress & Coping: Exploring Responses and Effects of Stress, and Coping Strategies of Elite Coaches..	91
4.1 Introduction	91
4.2 Study Aims	94
4.3 Method	95
4.3.1 Participants	95
4.3.2 Procedure	96
4.3.3 Interview guide	97
4.3.4 Data analysis	97
4.4 Results	98
4.4.1 Responses & effects of stress	98

4.4.1.1	Psychological responses	..	..	..	..	102
4.4.1.1.1	Negative cognitions	..	..	..	..	102
4.4.1.1.2	Emotional responses	..	..	..	..	102
4.4.1.1.3	Confidence	..	..	..	..	103
4.4.1.2	Behavioural responses	..	..	..	..	103
4.4.1.3	Physical responses	..	..	..	..	103
4.4.1.4	Negative effects on the coach	..	..	..	..	104
4.4.1.4.1	Negative Affect	..	..	..	..	104
4.4.1.4.2	Decreased motivation	..	..	..	..	104
4.4.1.4.3	Relationships with others	..	..	..	..	104
4.4.1.4.4	Withdrawal	..	..	..	..	105
4.4.1.5	Effects on Athletes	..	..	..	..	105
4.4.1.5.1	Behaviour towards athletes	..	..	..	..	105
4.4.1.5.2	Effects on athletes	..	..	..	..	106
4.4.1.6	Positive effects	..	..	..	..	106
4.4.1.6.1	Increased focus	..	..	..	..	106
4.4.1.6.2	Determination	..	..	..	..	106
4.4.1.6.3	Productivity	..	..	..	..	106
4.4.2	Coping with stress	..	..	..	..	107
4.4.2.1	Structuring and planning	..	..	..	..	107
4.4.2.1.1	Planning	..	..	..	..	107
4.4.2.1.2	Communication	..	..	..	..	108
4.4.2.1.3	Time management	..	..	..	..	108
4.4.2.1.4	Scheduled time off	..	..	..	..	112
4.3.2.2	Psychological skills	..	..	..	..	112
4.4.2.2.1	Rationalisation	..	..	..	..	112
4.4.2.2.2	Self talk	..	..	..	..	112
4.4.2.2.3	Proactive behaviours	..	..	..	..	113
4.4.2.2.4	Relaxation	..	..	..	..	113
4.4.2.3	Support	..	..	..	..	113
4.4.2.3.1	Work related support	..	..	..	..	113
4.4.2.3.2	Advice from others	..	..	..	..	114
4.4.2.3.3	Social support	..	..	..	..	114
4.4.2.4	Distraction	..	..	..	..	114
4.4.2.4.1	Off task activities	..	..	..	..	114
4.4.2.4.2	Exercise	..	..	..	..	115
4.4.2.5	Experience and learning	..	..	..	..	115
4.4.2.5.1	Continued professional development	..	..	..	..	115
4.4.2.5.2	Experience as an athlete	..	..	..	..	116
4.4.2.5.3	Experience as a coach	..	..	..	..	116
4.4.2.6	Approach to coaching	..	..	..	..	116
4.4.2.6.1	Taking a step back	..	..	..	..	116
4.4.2.6.2	Flexibility	..	..	..	..	117
4.4.2.6.3	Consistency	..	..	..	..	117
4.4.2.7	Maintaining positive coach athlete relationships	..	..	..	..	117
4.4.2.8	Avoidance	..	..	..	..	117
4.4.3.9	Confrontation	..	..	..	..	118
4.5.	Discussion	..	..	..	..	118
4.5.1	Strengths and limitations	..	..	..	..	125
4.6	Conclusions	..	..	..	..	126

Chapter V: Study 3: Coaching under pressure: A study of Olympic coaches	128
5.1 Introduction	128
5.1.1 Coaches' coping strategies and use of psychological skills ..	129
5.1.2 Factors associated with elite performance	132
5.2 Study Aims	134
5.3 Method	135
5.3.1 Participants	135
5.3.2 Procedure	135
5.3.3 Interview guide	136
5.3.4 Data Analysis	137
5.4 Results	138
5.4.1 Successful performance on the Olympic stage	138
5.4.1.1 Psychological attributes	138
5.4.1.1.1 Emotional control	141
5.4.1.1.2 Perception	141
5.4.1.1.3 Confidence	141
5.4.1.1.4 Athlete focus	142
5.4.1.1.5 Communication	142
5.4.1.1.6 Focus	142
5.4.1.1.7 Passion	143
5.4.1.1.8 Support	143
5.4.1.1.9 Commitment	143
5.4.1.1.10 Consistency	144
5.4.1.1.11 Fun	144
5.4.1.2 Preparation	144
5.4.1.2.1 Strategic approach	144
5.4.1.2.2 Lifestyle choices	145
5.4.1.2.3 Previous experience	145
5.4.1.2.4 Contingency planning	145
5.4.1.2.5 Team preparation	146
5.4.1.2.6 Athlete preparation	146
5.4.1.3 Coping at the event	147
5.4.1.3.1 Coach specific strategies	147
5.4.1.3.2 Team support	147
5.4.1.3.3 Taking time out	148
5.4.1.3.4 Drinking/Socialising	148
5.4.1.3.5 Psychological Skills.. .. .	148
5.4.2 Developmental factors	148
5.4.2.1 Coach interaction	149
5.4.2.2 Experience as an athlete	149
5.4.2.3 Structured CPD	151
5.4.2.4 Personal coaching experience	151
5.4.2.5 Self-directed CPD	151
5.4.2.6 Working with the sport psychologist	152
5.4.3 Advice for coach development	152
5.4.3.1 Preparation for the Olympic environment	152
5.4.3.1.1 Simulate the pressure	152
5.4.3.1.2 Establish role clarity	153
5.4.3.1.3 Prepare for the unfamiliar	153
5.4.3.2 Attitude	154

5.4.3.2.1 Humility	..	..	..	..	..	..	154
5.4.3.2.2 Athlete centred	..	..	..	..	..	..	155
5.4.3.2.3 Immersion in the process	..	..	..	..	..	..	155
5.4.3.3 Education	..	..	..	..	..	..	155
5.4.3.3.1 Coach contact	..	..	..	..	..	..	155
5.4.3.3.2 Education in psychology	..	..	..	..	..	..	156
5.4.4 Role of the sport psychologist	..	..	..	..	..	..	158
5.5 Discussion	..	..	..	..	..	..	158
5.5.1 Coach development/practical implications	..	..	..	..	..	..	161
5.5.2 Strengths and limitations	..	..	..	..	..	..	164
5.6 Conclusions	..	..	..	..	..	..	166
Chapter VI: Study 4: Evaluation of a ‘Coaching under Pressure’ mental skills training package for coaches							169
6.1 Introduction	..	..	..	..	..	..	169
6.1.1 Mental skills and stress management for sports performers	..	..	..	..	..	..	170
6.2 Study Aims	..	..	..	..	..	..	172
6.3 Workshop Development	..	..	..	..	..	..	175
6.3.1 Approaches to delivery	..	..	..	..	..	..	175
6.3.2 Applied Relaxation	..	..	..	..	..	..	176
6.3.3 Session 1 - Introduction	..	..	..	..	..	..	178
6.3.4 Session 2 - Building confidence	..	..	..	..	..	..	180
6.3.5 Session 3 - Emotional control	..	..	..	..	..	..	181
6.3.6 Session 4 - Communication	..	..	..	..	..	..	183
6.3.7 Session 5 - Preparation for major events	..	..	..	..	..	..	184
6.3.8 Session 6 - Developing coach-specific coping strategies	..	..	..	..	..	..	185
6.4 Evaluation of the MST Programme	..	..	..	..	..	..	185
6.4.1 Participants	..	..	..	..	..	..	186
6.4.2 Measures	..	..	..	..	..	..	186
6.4.2.1 Demographic information	..	..	..	..	..	..	186
6.4.2.2 Mental Skills Questionnaire	..	..	..	..	..	..	187
6.4.2.3 Competitive State Anxiety Inventory-2/modified	..	..	..	..	..	..	187
6.4.2.4 Modified COPE	..	..	..	..	..	..	188
6.4.2.5 Social Validation Questionnaire	..	..	..	..	..	..	189
6.4.3 Procedure	..	..	..	..	..	..	190
6.4.4 Data Analysis	..	..	..	..	..	..	191
6.5 Results	..	..	..	..	..	..	192
6.5.1 Analysis of questionnaire data	..	..	..	..	..	..	192
6.5.1.1 MSQ	..	..	..	..	..	..	192
6.5.1.2 CSAI-2md	..	..	..	..	..	..	195
6.5.1.3 MCOPE	..	..	..	..	..	..	197
6.5.1.3 MCOPE Effectiveness Scale	..	..	..	..	..	..	199
6.5.2 Analysis of Social Validation Questionnaire data	..	..	..	..	..	..	201
6.6 Discussion and Conclusions	..	..	..	..	..	..	203
Chapter VII: Summary, Discussion, and Conclusions							210
7.1 Introduction	..	..	..	..	..	..	210
7.2 Summary	..	..	..	..	..	..	210
7.3 Discussion	..	..	..	..	..	..	214
7.3.1 Stress in elite sports coaching	..	..	..	..	..	..	214
7.3.2 Implications for practice	..	..	..	..	..	..	219
7.3.3 Strengths of the research programme	..	..	..	..	..	..	222
7.3.4 Limitations of the research programme	..	..	..	..	..	..	224

7.3.5 Future research directions	..	..	..	..	..	..	..	..	226
7.4 Concluding Remarks	..	..	..	..	..	..	..	..	230
References	..	..	..	..	..	..	..	..	231
Word Count	..	..	..	..	..	..	..	..	260
Appendices	..	..	..	..	..	..	..	..	261

List of Figures

Chapter I

1.1 Structure of the Thesis	8
-------------------------------------	---

Chapter II

Figure 2.1 Two dimensional coping: A conceptual framework (Anshel et al., 1997).	26
--	----

Fig 2.2 A meta-model of stress, emotions, and performance (Fletcher & Fletcher, 2005; Fletcher et al., 2006).	29
---	----

Figure 2.3 Cooper and Marshall's (1976) 6-Factor Theory of Job Stress. ..	35
---	----

Chapter III

Figure 3.1 Stressors identified by World Class, UK sports coaches	72
---	----

Chapter IV

Figure 4.1 Responses and effects of stress reported by elite, UK sports coaches	99
---	----

Figure 4.2 Coping strategies employed by World class, UK sports coaches ..	109
--	-----

Chapter V

Figure 5.1 Factors influencing successful Olympic coaching	139
--	-----

Figure 5.2 Developmental factors	150
--	-----

Figure 5.3 Training and development strategies	157
--	-----

Chapter VI

Figure 6.1 An applied model of stress management for coaches (Taylor, 1992)	173
---	-----

Figure 6.2 Overview of the Coaching under Pressure workshop programme	177
---	-----

Figure 6.3 Changes in coaches' MSQ subscale scores (pre- to post-intervention)	194
--	-----

Figure 6.4 Changes in coaches' CSAI-2md subscale scores (pre- to post-intervention)	196
---	-----

Figure 6.5 Changes in coaches' MCOPE subscale scores (pre- to post-intervention)	198
--	-----

Figure 6.6 Changes in coaches' MCOPE Effectiveness subscale scores (pre- to post-intervention)	200
--	-----

List of Tables

Chapter VI

Table 6.1 Pre- and post-intervention means and standard deviations for each of the questionnaire subscales	193
---	-----

List of Appendices

Appendix A: Ethics Approval for Study One and Two..	262
Application for approval of research	263
Risk Assessment form	271
Participant information sheet	273
Informed Consent form	274
Appendix B: Interview Guide for Study One and Two ..	275
Appendix C: Example Transcript: Study One & Two Interview	278
Appendix D: Ethics Approval for Study Three	293
Application for approval of research	294
Risk Assessment form	302
Participant information sheet	304
Informed Consent form	305
Appendix E: Interview Guide for Study Three	306
Appendix F: Example Transcript from Study Three Interview	309
Appendix G: Workshop Material (developed for study four)..	324
1. Introduction.. .. .	325
2. Building Confidence	337
3. Emotional Control	346
4. Communication	353
5. Preparation for Major Events	359
6. Developing Specific Coping Strategies	369
Appendix H: Applied Relaxation Instructions	375
Appendix J: Ethics Approval for Study Four	392
Application for approval of research	393
Risk Assessment form	401
Informed Consent form	404
Appendix K: Pre-Workshop Information Pack for Coaches ..	405
Preliminary Information for Coaching Workshops	406
Workshop Registration/Demographic Questionnaire.. .. .	410
Participant Information Sheet	411
Appendix L: Questionnaire Materials for Study Four	413
Mental Skills Questionnaire	416
Competitive State Anxiety Inventory -2md	418
MCOPE	420
Social validation questionnaire	425

Appendix M: SPSS Outputs for Study 4	..	..	..	..	..	..	..	..	427
MSQ	..	..	..	..	..	..	..	..	428
CSAI-2md	..	..	..	..	..	..	..	..	430
MCOPE	..	..	..	..	..	..	..	..	432
MCOPE - Effectiveness	..	..	..	..	..	..	..	..	436

Peer Reviewed Work Related to the Thesis

Blind refereed publications

Olusoga, P., Butt, J., Maynard, I. W., & Hays, K. (2008). Stress in elite sports coaching: Identifying stressors (Abstract). *Journal of Sports Sciences, 26*, S99.

Olusoga, P., Butt, J., Maynard, I. W., & Hays, K. (2008) Stress in elite sports coaching: Exploring Responses to and consequences of stress (Abstract). *Journal of Sports Sciences, 26*, S97-98.

Olusoga, P., Butt, J., Hays, K., & Maynard, I. W. (2009). Stress in elite sports coaching: Identifying stressors. *Journal of Applied Sport Psychology, 21(4)*, 442-459.

Olusoga, P., Butt, J., Maynard, I. W., & Hays, K. (2010). Stress and coping: A study of world class coaches. *Journal of Applied Sport Psychology, 22(3)*, 274-293.

Olusoga, P., Maynard, I. W., Hays, K., & Butt, J. (2012). Coaching under pressure: A study of Olympic coaches. *Journal of Sports Sciences, 30(3)*, 229-239.

Blind refereed presentations

Olusoga, P., Butt, J., Maynard, I. W., & Hays, K. (2008). Stress in elite sports coaching: Identifying stressors. Research paper poster presented at the British Association of Sport and Exercise Annual Conference. Brunel, 2008.

Olusoga, P., Butt, J., Maynard, I. W., & Hays, K. (2008). Stress in elite sports coaching: Exploring responses to and consequences of stress. Research paper poster presented at the British Association of Sport and Exercise Annual Conference. Brunel, 2008.

Olusoga, P., Maynard, I. W., Hays, K., & Butt, J. (2010). *Coaching Under Pressure: A Study of World Class Coaches*. Oral presentation at the Association of Applied Sport Psychology Annual Conference, Providence, RI, USA, 2010.

The greatest weapon against stress is our ability to choose one thought over another.

(William James, 1842-1910)

CHAPTER I

Introduction

1.1 Stress in Sport

Competitive sport in the new millennium has been transformed into a global phenomenon (Fletcher, Hanton, & Mellalieu, 2006). Several authors have commented on the benefits that this globalisation of sport has brought with it. In particular, Thibault (2009) noted the broadening of sports throughout the world and the increasing number of countries participating in international sporting competitions. As part of this transformation, sport has become part of the mass entertainment industry, a process that has been steadily accelerated by technological developments in the media (Aris, 1990; Gerrard, 2004; Fletcher et al., 2006). Along with the Superbowl and World Cup Soccer finals, the Olympic Games is one of the most widely watched sporting spectacles in the world, with the 2008 Games in Beijing being broadcast to 220 territories and having a potential television audience of approximately 4.3 billion people worldwide (International Olympic Committee, 2009).

For those involved, the Olympics can often represent the pinnacle of sporting success (Gould, Guinan, Greenleaf, & Chung, 2002). In the UK alone, 12.8 million viewers watched Paula Radcliffe fail to complete the Marathon in Athens, 2004, while Amir Khan's lightweight boxing semi-final success at the same Games drew 7.4 million viewers (BBC Press Office, 2004). Outside of the Olympic Games, the University Boat Race between Oxford and Cambridge is regularly broadcast in over 100 countries, the 2010 Men's singles final at Wimbledon was watched by 6.8 million viewers in the UK (Wimbledon Championships, 2010), and the 2009 UEFA Champions League final was

seen by 109 million viewers worldwide (Wilkey, 2010). Sport has become big business with a global audience and the pressure on sport organisations to produce results has never been greater.

In addition to the pressure placed on sporting organisations due to the fact that virtually the whole world is watching, the way that sport in the UK is funded can often heap additional pressure on sport organisations to get results. In the UK, many Olympic sports often rely on national lottery funding, the allocation of which is dependant on a number of factors, although performance is still a particularly significant aspect. In a 2006 press release, the then Chairman of UK Sport, Sue Campbell, stated,

Allocating funding across so many sports is never easy but a decision eventually has to be made about the relative merits of competing demands. We believe our no compromise strategy is the most equitable approach to resolving this, taking into account both the detailed information gathered from the sports and significant objective data regarding recent performances, medal opportunities and their overall competitive potential.

(UK Sport, 2006)

Following Great Britain's return of 47 medals at the Beijing Olympics in 2008, UK sport announced its detailed funding plans for the next four years. Cycling (14 medals), rowing, (6 medals), and sailing (6 medals), all exceeded their predicted medal totals and all received increases in funding. Athletics, predicted to bring back five medals, won only four and subsequently had its funding cut from £26.5 million before Beijing, to £25.1 million in the run up to London 2012 (UK Sport, 2009). With the future of sports programmes, jobs, and livelihoods often on the line, the pressure to perform for those involved in sporting organisations is immense.

Developing an understanding of the effects of pressure and stress on sport performance has been, and continues to be, a major focus of sport psychology research. In particular, this has involved identifying the vast array of demands placed on

performers in and outside of the sporting environment. Indeed the competitive and organisational demands experienced by performers in an array of diverse sports such as athletics (McKay, Niven, Lavallee, & White, 2008), ice skating (Scanlan, Stein, & Ravizza, 1991), golf (Nichols, Holt, Polman, & James, 2005a; Rees, Hardy, & Freeman, 2007) wheelchair basketball (Campbell & Jones, 2002), soccer (Reeves, Nicholls, & McKenna, 2009), and rugby (Nicholls, Holt, Polman, & Bloomfield, 2006), have all been explored in detail. A plethora of studies has also investigated the ways in which performers attempt to cope with the demands placed upon them, with several negative effects, such as withdrawal from sport and decreased performance, being linked with less effective coping (cf., Nicholls & Polman, 2007). Again, this research has been extensive, conducted with performers of varying standards and from a diverse range of sports (e.g., Anshel & Wells, 2000; Campen & Roberts, 2001; Crocker & Isaak, 1997; Giacobbi, Foore, & Weinberg, 2004; Gould Eklund & Jackson, 1993; Gould, Finch, & Jackson, 1993; Holt, 2003; Holt & Hogg, 2002; Nicholls, Holt, & Polman, 2005a, 2005b). However, as alluded to above, with the transformation of sport into a global industry (Westerbeek & Smith, 2003), it is not only the athletes within sport organisations who can experience the full impact of what has become a highly demanding and challenging environment in which to work (Woodman & Hardy, 2001). The pressure to produce results is often felt throughout sporting organisations, with performance directors, coaches, and other support staff sometimes under as much pressure as the athletes themselves. Indeed, coaches are particularly susceptible and, due to the potential loss of control in unfamiliar surroundings, are often under more pressure than their athletes (McCann, 2000).

As will be discussed in greater detail elsewhere, a positive coach-athlete relationship is a vital for the performance and the satisfaction of athletes (Jowett &

Cockerill, 2003), and, as such, the demands placed on coaches of world class athletes and the ways in which coaches attempt to manage such demands, appear to be of particular importance. A significant body of research has investigated the influence that coach behaviour can have on athletes. For example, Price and Weiss (2000) reported that coaches with higher levels of emotional exhaustion (a possible response to chronic stress) were perceived by their athletes to provide less training and instruction and to be less supportive. Furthermore coaches who were perceived this way were associated with athletes who reported higher levels of anxiety and lower levels of enjoyment and perceived competence. Exploring the demands that coaches of world class athletes encounter, and the ways in which coaches cope with the pressures and demands of the competitive environment might have important implications for the development of world class coaches and coach education in the UK, and for the athletes they coach.

By 2012 the practice of coaching in the UK will be elevated to a profession acknowledged as central to the development of sport and the fulfilment of individual potential.

(UK Sport, 2000)

1.2 Purpose of the Thesis

Stress has been well established as an inherent element of competitive sport, with performers, especially at the top level, required to perform under extremely demanding conditions (Jones, Hanton, & Connaughton, 2007). As discussed in the previous section, in many ways a result of the way in which sport in the UK is funded, it is not only the athletes in sport organisations who are under pressure to perform, but also coaches and other support staff. While funding issues are likely to be particular pressures for coaches in the UK, research conducted with coaches of varying levels has identified coaching in general as a particularly stressful occupation (e.g., Frey, 2007;

Gould, Guinan, et al., 2002; Taylor, 1992). For example, in addition to financial issues (Wang & Ramsey, 1998), interpersonal relationships (Kroll & Gundersheim, 1982), lack of time to adequately prepare, the selection of athletes for competition (Sullivan & Nashman, 1993), and losing passion for the job (Frey, 2007), have all been cited as stress factors involved in the coaching role. However, to date, only a relatively small number of studies has addressed the issue of stress in coaching despite the fact that, as will be discussed in greater detail in later chapters, coaches, like athletes, are required to "perform" in highly pressurised situations. The majority of the research that has focused upon stress in coaching has explored the phenomenon predominantly at high-school and collegiate levels (e.g., Kelley, 1994; Kelley & Gill, 1993; Frey, 2007). While the collegiate environment in North America could well be considered elite, the demands faced by coaches operating in, for example, an Olympic environment, are likely to be considerably different (Gould, Guinan, Greenleaf, Medbery & Peterson, 1999). Little research has explored stress in world class coaching, and only a handful of studies have explored stress amongst world class coaches in the UK (Levy, Nicholls, Marchant, & Polman, 2009; Olusoga, Butt, Hays, & Maynard, 2009; Olusoga, Butt, Maynard, & Hays, 2010; Thelwell Weston, Greenlees, & Hutchings, 2008b). Thus, a major purpose of this thesis was to explore, in depth, the phenomenon of stress within the unique culture of world class sport.

The application of research into practice is a fundamental component of coach development (Williams & Kendall, 2007). However, it is important to understand that coaches are often uninterested in theoretical research developments and, instead, require information and recommendations that can be put into practice immediately (Spinks, 1997). As Williams and Kendall (2007) suggested, both coaches and researchers agree that research findings need to be made available in a manner that **will** reach coaches, be

that via presentations at coaching workshops, articles in coaching magazines, or through applied practice. Taking this into consideration, the overall aim of this thesis, and the series of studies contained herein, was to bridge the gap between research and practice by a) providing practical recommendations for sport organisations and for sport psychology practitioners working with coaches, b) informing coach education and development programmes, and c) by developing an intervention programme based on the experiences of successful, world class coaches, and aimed at helping coaches to develop the ability to manage stress and coach effectively under pressure.

1.3 Structure of the Thesis

The thesis consists of six further chapters, brief summaries of which are provided below (see also Figure 1.1). Chapter II provides a review of the extant research literature surrounding the study of stress in both occupational and sport settings and provides a theoretical backdrop to the remainder of the thesis. The research studies contained within the thesis were also conducted in two distinct phases. Chapters III (study one) and IV (study two) describe the first phase of the research, an interview based investigation, designed to explore, in depth, elite coaches' experiences of stress during their careers coaching world class athletes. Chapters V (study three) and VI (study four) describe the second phase of the research, in which the key psychological attributes of the successful world class coaches were identified and used to inform an intervention programme aimed at helping coaches develop their ability to coach under pressure.

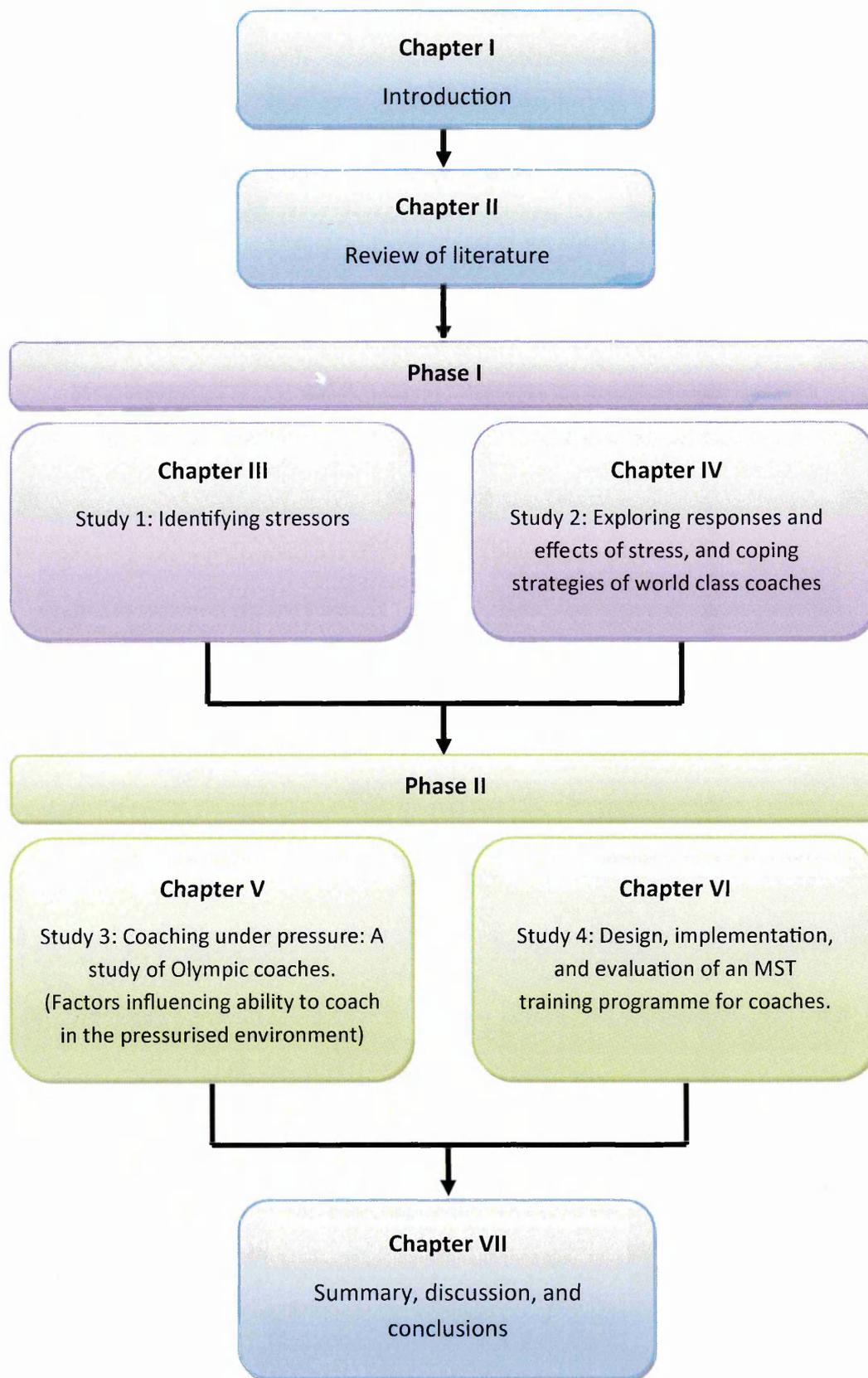


Figure 1.1 Structure of the thesis

1.3.1 Chapter II (Review of literature)

Because, within extant stress research literature, there have been discrepancies regarding how stress has been conceptualised within stress research, Chapter II first attempts to provide some conceptual and definitional clarity of the terms used. An overview of Lazarus' transactional theory of stress (Lazarus & Launier, 1978) is provided and, subsequently, the chapter critically examines relevant stress research from occupational and sport settings, identifying areas for future research, and providing a theoretical background and rationale for the thesis.

1.3.2 Chapter III (Study 1)

Chapter III begins with a review of the extant coaching research literature, which identifies coaching as a multifaceted and stressful role. While elite athletes have received a great deal of attention in stress research, coaches of world class athletes have, until recently, been largely ignored. As such, the first phase of the present research was concerned with gaining an in-depth understanding of elite coaches' experiences of stress. Specifically, in study one, 12 elite coaches were interviewed about the stressors they encountered in their experiences coaching world class athletes.

1.3.3 Chapter IV (Study 2)

Chapter IV describes the second study in the first phase of the research programme. As discussed in greater detail in Chapter II, from a transactional stress perspective, the stressors experienced by individuals are considered part of a dynamic stress process. The responses to stressors described in study one, along with the coping efforts of coaches, are likely to be complex. Therefore, study two, again using in depth-interviews with the same 12 coaches as a method of data collection, explored the responses and effects of stress for coaches, and the coping strategies they used. In

response to stressors, coaches experienced symptoms of burnout, such as emotional and physical exhaustion, lack of confidence and motivation, and withdrawal. Coaches also felt that their athletes' performances and attitudes could also be negatively influenced by their own stressful behaviour. Furthermore, an exploration of coaches' coping strategies indicated that their use of psychological skills was generally limited and that avoidance and distraction were often used strategies for coping with the demands of world class coaching.

1.3.4 Chapter V (Study 3)

The first phase of this research project, and previous research findings, identified coaching, especially in the arena of world class sport, as a particularly stressful occupation (Taylor, 1992; Gould, Guinan, et al., 2002). Moreover, research has identified the Olympic Games as representing the pinnacle of success and, therefore, a competitive environment unlike any other (Greenleaf, Gould, & Dieffenbach, 2001). Based on the findings from studies one and two, it seemed essential for the education and the personal and professional development of coaches, and for the continued success of the athletes in their charge, that we develop a comprehensive understanding of the factors that enable coaches to perform under pressure at the highest levels. Indeed, although recent research has identified coaches' coping strategies and use of psychological skills, little is known as to how coaches have developed the attributes and coping strategies that allow them to operate successfully in a competitive environment as demanding as the Olympic Games. Via interviews with eight Olympic coaches, the study described in Chapter V explored, in depth, the factors that successful, experienced coaches perceived to be essential for Olympic coaching. The ways in which coaches had developed these attributes were also explored in detail. Recommendations for the

education and training of development coaches were also provided, which informed the design of an intervention package and the final study of the research programme.

1.3.5 Chapter VI (Study 4)

Chapter VI describes the design, development, and implementation of an intervention programme, aimed at developing coaches' ability to manage stress and coach effectively under pressure. Five coaches participated in the intervention programme, which took the form of a series of six workshops, the contents of which were informed by the findings of the previous three chapters, along with existing literature. The evaluation of the intervention is also discussed in detail in this chapter.

1.3.6 Chapter VII (Summary, discussion and conclusion)

Chapter VII summarises the findings of the research programme. Theoretical and practical applications are considered and the strengths and limitations of the research programme are also discussed in detail. Finally, recommendations for future research are also discussed.

1.4 A Note on Methods Used Within the Thesis

As noted above, the overall purpose of the thesis was to explore elite sports coaches' experiences of stress within the unique culture of world class sport. Lazarus' (Lazarus & Folkman, 1984; Lazarus & Launier, 1978) transactional theory of stress has been adopted within sport psychology research as a comprehensive framework for studying the stress process. Further, Fletcher and colleagues (Fletcher & Fletcher, 2005; Fletcher et al., 2006) developed a meta-model of stress, emotions and performance delineating the theoretical relationships between the various elements of the stress process (i.e., the processes involved, the consequences, and the moderating factors) (see Chapter II, pp. 27-30). Fletcher and Scott (2010) argued that the model provides a

conceptual and theoretical foundation for developing a deeper understanding of the stress process in sports coaches, and a framework for discussing the various aspects of the stress process.

The first phase of the research programme (studies one and two - Chapters III & IV) the thesis adopts a deductive reasoning framework. While these chapters are concerned with identifying stressors, responses and effects of stress, and coping strategies (elements of the stress process) the aim of this phase was to gain an overall understanding of the demands facing world class coaches and the responses and effects of stress for these coaches as a group. Within this deductive framework, however, inductive methods of analysis were employed in individual studies. Specifically, while interview guides were informed by Lazarus' transactional theory of stress and current stress literature (e.g., Fletcher & Fletcher, 2005; Fletcher et al., 2006; Frey, 2007; Woodman & Hardy, 2001), the interview transcripts were analysed inductively using content analysis procedures that have been used extensively within the sport psychology literature (cf., Gould et al., 1993; Gould, Finch, et al. 1993; Scanlan et al., 1991).

For study three, the busy schedules of the coaches involved precluded the use of focus group interviews. Because of the exploratory nature of the study, interviews (conducted via telephone) were deemed the best method of data collection and, as such, a qualitative method of analysis was selected. As with phase one, the interview guide was based on existing coaching science literature (e.g., Gilbert, Côté, & Mallett, 2006; Olusoga et al., 2010), so although inductive methods of analysis were employed, the framework of the study was still deductive in nature.

In study four, an experimental design was used to evaluate the intervention programme aimed at developing coaches' ability to manage stress and coach effectively under pressure. Data were collected before and after the six workshop intervention

programme from the small group of coaches who participated. Because of the small sample size it was not practical to include a control group in the experimental design, so the results must be interpreted with caution and no causality can be assumed. However, while analysis of the quantitative data was an important part of the evaluation, the practical significance of the intervention to the coaches was also considered important (Daw & Burton, 1994) and was assessed via a social validation questionnaire.

CHAPTER II

Review of Literature

2.1 Introduction

We all know that coach doesn't handle pressure well. Basically, she freaks out! She starts pointing out problems and trying to change things at the last minute, so we try and avoid her the last week before nationals

Multiple national champion and Olympian
(McCann, 1997, p.12)

Stress in sport has become an increasingly popular research topic in sport psychology (Frey, 2007; Jones & Hardy, 1990; Lazarus, 2000b). At the highest level, the ability to cope with performance stressors is often cited as a significant factor in whether or not success is achieved (Nicholls & Polman, 2007). Moreover, the quote above highlights the fact that it is not just athlete performers who have to be able to handle the stress of competition, but coaches must also be able to cope with stress if they are to expect success. The purpose of this chapter is to provide a critical review of the literature pertinent to issues within stress research and coaching. This review will first endeavour to critically examine definitional and conceptual issues regarding the terminology used in stress research, and a discussion of the literature regarding stress from both work- and sport-based settings will follow. Finally, the aims and objectives of the thesis will be outlined.

2.2 Definitional and Conceptual Issues

Defining stress is not meant to be a tortuous academic exercise in semantics far removed from the “real world”, nor should it be viewed as some sort of initiation process that all researchers have to go through. ...we have a moral obligation to those whose working lives we wish to explore. This obligation requires that we give thought to how stress can best be defined so that research captures the reality of the stressful encounter and is relevant to and reflects the experience of those who are being researched.

(Cooper, Dewe, & O’Driscoll, 2001, p.20).

Within the sport psychology literature, failure to clearly differentiate between, and consistently define the terms stress, arousal, and anxiety have been major limitations to our understanding of these constructs and their effects upon performance (Fletcher & Scott, 2010; Hardy, Jones, & Gould, 1996; Gould, Greenleaf, & Krane, 2002). Indeed, several authors have suggested that the concept of stress remains unclear (e.g., Campbell & Jones, 2002). Stress has been described as a stimulus variable (or environmental demand) and as a response to a specific situation (Gould & Petlichkoff, 1988). However, alternative definitions have conceptualised stress as an interaction between stimulus and response, where the interaction is described in terms of some imbalance between the person and the environment (Appley & Turnbull, 1967).

To address these issues of definitional and conceptual uncertainty in sport psychology, Lazarus' (Lazarus & Folkman, 1984; Lazarus & Launier 1978) transactional theory of stress has, relatively recently, been adopted within the sport psychology literature. Indeed, in their review of organisational stress in competitive sport, Fletcher et al. (2006) suggested that upon close examination, stimulus and response conceptualisations are somewhat inadequate as explanations of stress, and that a transactional approach has evolved from these more traditional approaches. Lazarus' transactional theory will be discussed in greater detail later in this chapter but, in brief, the transaction refers to the dynamic relationship between environmental demands (i.e., stressors) and an individual's psychological resources for dealing with them (i.e., coping

ability). Stress responses (i.e., strain) result from a perceived imbalance between these demands and resources. In short, the meaning constructed by an individual about their relationship with the environment is pivotal in their experience of stress.

Although Cooper et al. (2001) suggested that it should not be a "torturous academic exercise" (p.20), providing clear conceptual definitions of stress is essential in determining the nature and the direction of future research. The following section of this literature review will delineate traditional stimulus and response definitions of stress while considering the strengths and weaknesses of such approaches. Lazarus' transactional theory of stress will also be discussed in detail, and definitions of stress and associated constructs that are used throughout this thesis will be presented.

2.2.1 Stimulus definitions of stress

The origins of stimulus-based definitions of stress lie in physics and engineering, specifically, in exploring how physical structures could be made to withstand heavy loads. Hooke's Law of elasticity referred to "load" as the demand placed upon a structure, "stress" as the area affected by the demand, and "strain" as the change in the structure's form which resulted from the interaction between load and stress (Cooper & Dewe, 2004). As Lazarus (2006) suggested, in terms of personal experience and psychological stress, it is intuitively appealing to consider stress in terms of an environmental stimulus, in that it allows individuals to attribute their "disturbed emotional reactions" to external events (e.g., poor officiating, cuts in programme funding, missing the bus), and, therefore, to justify their responses (p.49).

Lending some credence to the notion that stress could be conceived as an environmental stimulus that causes some kind of reaction in an individual, Lazarus and Cohen (1977) identified three distinct types of environmental events that are typically cited as "stress stimuli" or stressors; catastrophic events, major life changes, and daily

hassles. Catastrophic events, such as natural disasters and war, were considered universally stressful and might be either long lasting or relatively brief episodes. Major changes could also be catastrophic but would only affect one or a few people, for example, the death of a relative or serious injury or illness. As Lazarus (2006) asserted, "the number of people affected does not crucially alter the power of such events to disturb" (p.13). Finally, daily hassles referred to the sometimes trivial incidents and events which are still perceived as causing significant stress, for example, losing one's keys, having a disagreement with a colleague, an athlete arriving late for training sessions, or the phone constantly ringing with offers of double glazing or mobile phone upgrades.

To demonstrate the link between major life events and the likelihood of illness, Holmes and Rahe (1967) devised the Social Readjustment Rating Scale as a method of measuring stress, or more specifically, of measuring the magnitude of stressful events. Culturally and geographically diverse samples were asked to rate several life events in terms of how much readjustment (some adaptive or coping behaviour) they required. Although major events such as the death of a spouse, divorce, and imprisonment were rated as most stressful, other, more positively toned events such as Christmas or going on holiday, were also rated as life events that could potentially cause stress. While Holmes (1970) found a positive correlation between major life events and injury in American Football players, the important point to consider here is that stimulus definitions of stress do not consider stressors to be exclusively negative, with positively toned events, such as getting married, also possessing the ability to cause significant reactions.

The fact that properties of stressors may make them more or less stressful in both qualitative and quantitative terms serves to enhance the appeal of stimulus-based definitions of stress (Lazarus & Folkman, 1984). For example, in a sporting context, a

stressor may be acute, as in the case of equipment failure or arriving late at a competition, or may be chronic, as in the case of long-term communication difficulties or poor training conditions. Lazarus (2006) lists a number of other potential distinctions that could be made between stressors, including the type of adjustment required, the positive or negative valence of the stress stimuli and, importantly, the amount of control over an event a person perceives they have. Again, these distinctions merely serve to perpetuate the notion that stress exists as an environmental stimulus that causes some sort of reaction in an individual. Stress has, however, also been considered as a response to an environmental demand and these response-based definitions of stress will be considered in the following section.

2.2.2 Response-based definitions

As well as a stimulus variable, stress has been conceptualised as a response to specific stressors. The origins of this approach to stress can be found in physiology and medicine and the seminal work of Walter Cannon and Hans Selye. Cannon (1939) considered stress to be a disturbance of the body's homeostasis that could result from various environmental conditions such as lack of oxygen or intense heat or cold. Selye (1936) similarly posited that stress¹ was an organised set of bodily defences against any noxious stimuli. Selye termed this reaction the General Adaptation Syndrome (GAS) and, in direct contrast to stimulus-based definitions, stress was conceptualised as a universal physiological set of reactions created by environmental demands, rather than as the environmental demands themselves.

¹ It should be noted that the term "stress" was not actually used until after World War II, the catalyst for stress research.

2.2.2.1 Criticisms of stimulus and response definitions

A number of criticisms can be levelled at stimulus- and response-based conceptualisations of stress. For example, defining stress as a response is simplistic and the reasoning behind it is tautological (Lazarus, 2006). Specifically, stimulus-response definitions of stress raise two immediate questions: What makes a particular stressor stressful, and what is it about the response that is indicative of a particular stressor (Lazarus & Folkman, 1984)? The stress response is considered a reaction to a stressful stimulus or stressor, yet the stimulus is defined as stressful because it causes some stress response. Neither the stressor nor the response can be defined without reference to the other, rendering each somewhat inadequate as a useful definition of stress.

Further complications are encountered when considering the difference between physical, physiological, and psychological stress. Increased heart rate, for example, could be an indication of physiological stress. However, the individual concerned may be in such a state because they have participated in a team warm up, and still remain psychologically relaxed. Again, the response cannot be defined as a psychological stress reaction without reference to the stimulus. Although analogies from engineering can help us understand the concepts of stress and strain, such analogies do not appear to uncover the apparent complexity of the human stress process (Lazarus, 2006). With psychological stress, it is not merely the case that demands on an individual will result in strain. The human element dictates that an individual must first make a decision as to whether or not the demand or situation is threatening, and assess their ability to cope successfully, before a situation is considered stressful or not. Despite the intuitive appeal of thinking of stress as a stimulus, and the notion of stress being a response to environmental stimuli, it is clear that these conceptualisations are inadequate and that the personal significance of the person-environment relationship should be considered.

2.2.3 Individual differences

We need to understand human variation if we are to deal effectively with individuals

(Lazarus, 2006, p.53)

As noted above, it seems intuitively appealing to consider certain stimuli or stimulus conditions as normatively and universally stressful. However, when one considers the vast diversity of human responses to any potential stimulus, the inherent complexity of such an argument is made all the more clear. In his work on physiological stress, Selye (1936) suggested that anything "noxious to tissues" could be considered a stressor. However, in adopting that definition, the issue still remains as to what can be considered noxious. For example a tennis ball would not be considered noxious to tissues unless it hit a player in the face, causing pain. This difficulty becomes even more apparent when, again, one considers psychological stress as opposed to physiological stress. Moreover, the suggestion that something is noxious because it causes a stress response merely leads to the issue of circularity outlined earlier in the chapter, whereby neither stressor nor response can be defined without referring to the other.

Lazarus (2006) suggested that "the degree and kind of stress response, even to singularly powerful stress conditions (e.g., performing at the Olympic Games), are apt to vary from person to person, and these variations need to be understood" (p.54). Individual differences in stress responses become even more apparent when considering the responses to major catastrophes as compared with responses to the minor inconveniences that people encounter on a day-to-day basis. To illustrate, the death of a loved one could be thought of as universally stressful, although individuals are still likely to react in very different ways depending on a number of personal and environmental variables. However, the recruitment of athletes or an athlete arriving late

to training, are events that some coaches might find highly stressful, whereas others might find trivial.

Prior to World War II, Yerkes and Dodson's (1908) Inverted-U hypothesis was the dominant theory used to explain the effects of stress on skilled performance. Specifically, the theory predicted that increases in stress would facilitate skilled performance, but only up to an optimal level. Increases in the level of stress past this optimal level would cause performance to deteriorate. However, research during and after World War II highlighted the importance of individual differences as a factor in need of consideration. Lazarus, Deese, and Osler (1952) provided a review of stress research studies which alluded to the fact that stress had a facilitating effect on some performers yet a debilitating effect on others. It is clear, therefore, that stress cannot be defined without referring to the characteristics of the person involved in some way.

2.2.4 Stress as an interaction

The interactional approach to defining stress focuses on the interaction between an individual and the environment they operate in. From an interactional perspective, the relationship between stimulus and response is one of cause and effect and is, therefore, essentially static (Cooper et al., 2001). When an interaction does not occur, or is different from the predicted relationship, this is explained by the influence of social (e.g., level and type of social support available), situational (e.g., perceived control over the environment), or individual (e.g., self-efficacy, optimism, hardiness) moderating variables. Specifically, from an interactional perspective the person and the environment (two independent variables) combine to have an effect on the individual's cognitive-emotional responses (the dependent variable), while remaining independent of each other and unchanged (Fletcher et al., 2006).

Various researchers have referred to an "interactional" perspective of stress in both work-stress literature (e.g., Kaufmann & Beehr, 2000; Schmidt, 2007) and in the sport psychology literature (e.g., Campbell & Jones, 2002; Jones, 1990; Kelley, 1994; Kelley & Gill, 1993). Specifically, in the case of work stress contexts, this allowed researchers to develop their understanding of work stressors and their impact on employee health (Cooper & Dewe, 2004). However, the way in which the relevant factors interact (i.e., the underlying stress process) is still not explained by an interactional approach to defining stress. Indeed, the presence of moderator variables is insufficient to explain the complex relationship between a person and their environment. Since this relationship is dynamic in nature (with both variables mutually affecting one another), it cannot be one of simple cause and effect. To overcome this limitation, the transactional conceptualisation of stress, places the emphasis on the dynamic nature of the person-environment relationship. Specifically, the meaning an individual constructs about their relationship with the environment is pivotal to their experience of stress.

2.2.5 A transactional theory of stress

Lazarus' transactional theory conceptualises stress as an ongoing process; a transaction between environmental demands and an individual's psychological resources for dealing with them, with strain resulting from a perceived imbalance between those demands and resources (Lazarus & Folkman, 1984; McGrath, 1970). However, the transactional definition of stress is less concerned with the specific components of the interaction between person and environment and instead focuses on the psychological processes of cognitive appraisal and coping that underpin stressful encounters. As Lazarus stated, the meaning an individual constructs about their relationship with the environment "operates at a higher level of abstraction than the concrete variables themselves" (Lazarus, 2006, p.12). This relational meaning is key to their experience of stress, and it is the process of appraisal by which a person gives

meaning to their relationship with the environment. Before describing the processes of appraising and coping, it is worth noting the grammatical distinction made by Lazarus regarding appraisal and appraising. Lazarus (2006) suggested that the noun form (appraisal) should be used for the evaluative product, while the verb form (appraising) should be used to describe the act of making the evaluation. To encourage consistency within the field, this distinction will be adhered to henceforth in this thesis.

2.2.5.1 Primary and secondary appraisal

For a situation to be appraised as stressful, it must contain both person factors (goals and goal hierarchies, beliefs about oneself and the world, and personal resources) and situational factors (demands, constraints, opportunities, and culture) (Lazarus, 2006). Lazarus referred to primary and secondary appraising and it is important to consider the distinction between the two types. Primary appraising is concerned with evaluating whether or not a particular encounter is relevant to a person's goal commitments (e.g., winning Olympic gold), values (e.g., winning is important above all else), and self-beliefs (e.g., "I believe I have the capability to win"). If an encounter is indeed appraised as having implications for an individual's wellbeing (i.e., impacting upon their commitments, values, and beliefs), then it has the potential to be stressful. Interestingly, Lazarus (2006) suggested that values and beliefs are less likely to be factors influencing an individual's actions or reactions than are goal commitments. Essentially, an individual can possess values without having to act upon them. For example, a coach might possess the value that developing young players' skills is the most important part of coaching, but may not necessarily be able to act upon it because of, for example, financial constraints. In contrast, "goal commitment" implies that a person will "strive hard to attain the goal, despite discouragement or adversity" (p.75-6).

If a transaction is considered irrelevant to an individual's wellbeing (i.e., no values, goal commitments, or needs are at stake), stress and its associated emotions will

not occur. However, an encounter with the environment might be appraised as representing some harm, threat, or challenge to an individual, where harm represents some damage that has already been done, threat represents the potential for harm, and challenge focuses on the potential for gain and is associated with positively toned emotions such as excitement or eagerness².

Whereas primary appraisal is concerned with evaluating what *is* happening, secondary appraising involves an evaluation of what can be done about the stressful situation. Once a person has appraised an encounter as being harmful, threatening, or challenging, the process of secondary appraisal involves an evaluation of coping options, how likely they are to be effective, and how likely it is that they can be applied in the situation. Although this appraisal is often the cognitive underpinning for coping, Lazarus (2006) suggested that it is not inappropriate to refer to it as coping as well (p.76). However, it is important to note that primary and secondary appraising are somewhat misleading terms, as primary appraisal is neither more important than, nor does it precede, temporally, secondary appraising. As Fletcher et al. (2006) assert the need to recognise stress as a process is well established. However, it is vitally important to understand the inability of an interactional approach to truly capture the essence of an individual's experience of stress, and, therefore, the value of the stress transaction.

2.2.5.2 Coping

The other important process considered in a transactional approach to stress is coping. Because stress has been linked to numerous negative outcomes in sport (Hoar, Kowalski, Gaudreau, & Crocker, 2006), the strategies used to cope with stressful events continue to be of major interest to sport psychologists (e.g., Giacobbi et al., 2004; Gould

² Lazarus & Folkman (1984) are keen to point out that these stress appraisals are not mutually exclusive and can occur simultaneously. For example, harm is fused with threat because with every loss/harm comes possible negative implications for the future. Furthermore, threat and challenge are not opposite ends of the same continuum and often occur simultaneously. Challenge and threat emotions can occur at the same time in stressful encounters.

et al., 1993; Gould, Finch, et al, 1993; Nicholls, Levy, Grice, & Polman, 2009; Ntoumanis & Biddle, 1998). It is important to understand that coping is an integral component of the stress process. Indeed, providing clear conceptual definitions of coping and delineating various coping styles and strategies have been important research topics. In response to the limitations of the traditional psychoanalytical approaches to coping, Lazarus and Folkman (1984) defined coping as:

constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person (p.141).

Coping here refers to an individual's attempts to either change or avoid (or both) the situation they encounter, or their emotions, and is defined as a process rather than a trait or style of an individual. Specifically, the process-oriented approach allows for coping strategies to change during the stressful episode, or for a number of different strategies to be utilised based on the individual's perceptions of their likely success. While a more detailed review of the literature surrounding coping in sport will follow later in this chapter, it is worth noting that there is significant support for a process-oriented approach to coping (e.g., Bouffard & Crocker, 1992 Gould et al., 1993, Holt & Hogg, 2002; Poczwardowski & Conroy, 2002).

2.2.5.3 Coping dimensions

The two most often referred to coping dimensions are problem-focused and emotion-focused coping (cf., Nicholls & Polman, 2007). Problem-focused coping involves attempts to modify the situation that is causing the stress response, and might include strategies such as planning or delegating responsibility. Emotion-focused coping involves attempts to regulate the emotional response and might include strategies such as seeking social support, thought stopping, or rationalisation. A significant amount of research to date has suggested that a variety and combination of problem- and emotion-focused coping strategies are used, depending on an individual's

appraisal of a given situation (Folkman & Lazarus, 1985; Gould et al., 1993; Gould, Finch, et al., 1993). However, an often proposed third dimension is avoidance coping (Endler & Parker, 1990). Avoidance coping represents disengagement or withdrawal from a situation and can include such behaviours as seeking social support and engaging in distracting tasks. It should be noted, however, that while Endler and Parker proposed "avoidance-oriented coping" as a third coping dimension, other researchers (e.g., Nicholls et al., 2005a) have categorised avoidance as an emotion focused coping strategy, rather than as a category in its own right. Anshel, Williams, and Hodge (1997) suggested further taxonomy based on two alternative coping dimensions (see Fig. 2.1). Specifically, approach coping referred to the "process of taking active steps in attempting to deal with the stressor to ameliorate its effects," while avoidance coping referred to "repression, disengagement, or rejection" (p.143).

		Coping Styles	
		Approach	Avoidance
Coping Strategies	Problem Focused	Analyse reasons why errors were made and correct them	Apply a mental distraction
	Emotion Focused	Use progressive relaxation to reduce stress	Vent unpleasant emotions, cry

Figure 2.1 Two dimensional coping: A conceptual framework (Anshel et al., 1997).

Avoidance has been reported as a coping strategy in several previous studies of stress in sport (e.g., Anshel & Kassidis, 1997; Crocker, 1992; Giacobbi et al., 2004). However, although problem-focused coping strategies have been found to be predictive of positive affect, emotion-focused strategies and avoidance have been associated with negative affect and greater cognitive anxiety (Ntoumanis & Biddle, 2000). In addition, Cox and Ferguson (1991) discussed appraisal coping. Specifically, appraisal coping refers to attempts to re-evaluate the situation to reduce its importance. Nevertheless, while there is still some debate over coping dimensions, Lazarus (2006) suggested that conceptually, coping and appraisal are inextricably linked and overlap. As such it is unclear, without full and detailed explanations of what is going on in an individual's mind, and the context of the transaction, whether any given stress related thought or action is an appraisal, a coping process or a combination of the two.

Although Hardy et al. (1996) suggested that imprecise conceptualisations and definitions hindered early research into stress, anxiety, and arousal, more recent research has adopted Lazarus' (Lazarus & Lurnier, 1978) transactional theory of stress. While the importance of having consistent definitions of stress related concepts is clear, the development of theoretical models is also a significant step forwards in the study of stress, the processes involved, and the consequences for those experiencing it.

2.2.6 A meta-model of stress, emotion, and performance

While definitional issues are important, Fletcher et al., (2006) argued that in order to guide enquiry in the field, developing theoretical models is essential if we are to develop the body of research further. After a thorough review of the models that have provided the theoretical foundation for the study of stress (largely taken from occupational stress research) Fletcher and colleagues (Fletcher & Fletcher, 2005; Fletcher et al., 2006) developed a meta-model of stress, emotions and performance which delineated the theoretical relationships between the various elements of the stress

process; specifically, the processes involved, the consequences, and the moderating factors (see Fig. 2.2). The model proposes that stressors are present in the environment in which the individual (or in the context of this thesis, the coach) is operating in. These environmental demands are mediated by the coach's perception, and the processes of appraisal and coping, and result in positive or negative responses, feeling states, and outcomes. Specifically, the first stage of the model is concerned with the Person-Environment (P-E) fit and suggests that, in accordance with the discussion of stress related concepts in sections 2.2.3 - 2.2.5 above, strain is a result of an imbalance between the person and the environment. This stage involves an initial cognitive process of relational meaning, where primary and secondary appraisal result in some emotional response.

The second stage of the model is concerned with Emotion - Performance (E-P) fit, and proposes that negative feeling states (emotional responses interpreted as debilitating towards performance) occur when there is an imbalance between an emotion and performance. Here a second cognitive process of relational meaning is suggested to occur, involving the labelling of the emotion with regards to its effect on performance. Tertiary appraisal is the evaluation of the emotion regarding its relevance to performance. If the emotion is appraised as being meaningful for the coach, quaternary appraisal is the process concerned with identifying coping responses (although not with the initiation of coping responses). This appraisal impacts upon the nature of feeling states with more facilitative feeling states being more likely to occur in coaches who are more confident in their ability to cope with stress related emotions. The third and final stage in Fletcher and Fletcher's (2005) meta-model is concerned with coping with stress related reactions and proposes that negative outcomes are a result of inappropriate or inadequate coping strategies being employed.

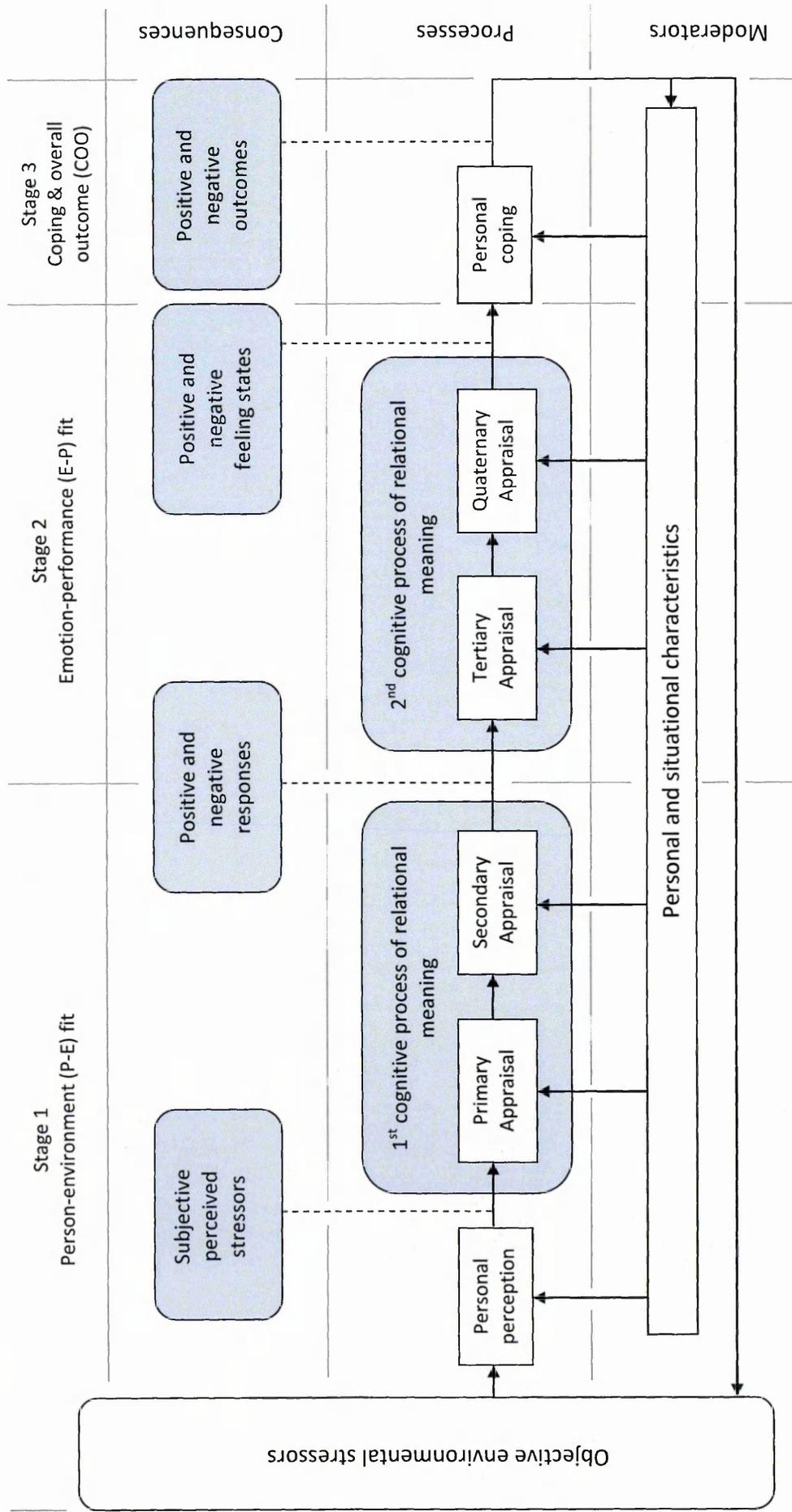


Figure 2.2 A meta-model of stress, emotions, and performance (Fletcher & Fletcher, 2005; Fletcher et al., 2006).

Fletcher and Scott (2010) suggested that the model described above provides a conceptual and theoretical grounding for developing a deeper understanding of the stress process in sports coaches. Further the model provides a framework for discussing the various aspects of the stress process, specifically, performance and organisational stressors, responses (and appraisal mechanisms), effects on well-being and performance, and coping processes and strategies.

2.2.7 Summary

Stress is not a factor that resides in the individual or the environment; rather, it is embedded in an ongoing process that involves individuals transacting with their environments, making appraisals of those encounters, and attempting to cope with the issues that arise.

(Cooper et al., 2001, p.12).

The transactional theory of stress recognises that the individual, the environment, and the individual's psychological reactions mutually influence one another. Placed in the context of elite sports coaching, the ways in which coaches react to a situation that they have appraised as stressful will, in turn, affect the environmental conditions that were appraised as stressful in the first place, the individual's psychological resources, and how they will react to future encounters (cf., Fletcher et al., 2006). For example a coach might appraise a situation in which an athlete cannot improve his technique as being a threat to his goals and, hence, stressful. However, the coach reflects, finds a strategy to cope effectively with the situation, resulting in a positive outcome. The coach might now feel he can cope with similar situations and, in future, might appraise a similar situation as non- (or less-) threatening. Conversely, another coach might attempt to cope by blaming the athlete and labelling him as uncooperative. This coach might experience emotions such as anxiety and anger, leading to a decreased motivation to coach, and withdrawal. Again, this is likely to affect this coach's future appraisals of similar situations.

Lazarus' transactional theory has been adopted within the sport psychology literature as a comprehensive framework for studying stress. Fletcher et al. (2006) suggested that an adoption of the transactional approach to stress and the notion of relational meaning "offers considerable potential for furthering theory and practice in our field" (p.328). Further, the meta-model of stress, emotions, and performance proposed by Fletcher and Fletcher (2005) also provides a conceptual framework for discussing the various aspects of the stress process.

As noted at the beginning of this chapter, researchers do have a moral obligation to the subjects of our study. Careful thought must be given as to how stress can best be defined "so that research captures the reality of the stressful encounter and is relevant to and reflects the experience of those who are being researched" (Cooper et al., 2001, p.20). In light of the various definitional issues discussed in the preceding sections, and in line with Lazarus' transactional conceptualisation of stress, this thesis will, henceforth, adopt the following conceptual definitions (Cooper et al, 2001; Fletcher et al., 2006; Lazarus & Folkman, 1984):

- *Stress* - an ongoing process that involves individuals transacting with their environments, making appraisals of the situations they find themselves in, and endeavouring to cope with any issues that may arise.
- *Stressors* - environmental demands (stimuli) encountered by an individual.
- *Strain* - an individual's negative psychological, physical, and behavioural responses to stressors.
- *Competition/Organisational stress* - an ongoing transaction between and individual and the environmental demands associated primarily and directly with the competition/organisation within which he or she is operating.

- *Competition/Organisational stressors* - the environmental demands (i.e. stimuli) associated primarily and directly with the competition/organisation within which an individual is operating.
- *Competition/Organisational strain* - an individual's negative psychological, physical, and behavioural responses to competition/organisational stressors.
- *Coping* - constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person (p.141).

The definitions outlined above have been adopted throughout contemporary sports stress literature (e.g., Fletcher et al., 2006; Thelwell et al., 2008b; Woodman & Hardy, 2001) and have served to aid consistency within the field. The preceding section of this chapter has provided a theoretical and conceptual overview of stress and its related concepts, used in the remainder of the thesis. Because coaching has become a recognisable occupation (Fletcher & Scott, 2010), an exploration of the occupational stress literature seems important.

2.3 Occupational Stress

A person's work and occupational stature play a critical role in an individual's sense of identity, self-esteem, and psychological well-being. Work is the central and defining characteristic of life for most individuals.

(Muchinsky, 2000, p. 303).

The impetus for studying the effects of stress on performance was provided by the two World Wars of the twentieth century (Lazarus & Folkman, 1984). Specifically, stress research had implications for the selection of soldiers for combat and for investigating individuals' abilities to cope with stress. After the Second World War, it became clear that stress was also an issue that was relevant in non-combat situations, and that it could occur at work, at school, or anywhere where individuals came into

contact with one another (Lazarus & Folkman, 1984). During the two decades following the Second World War, research into work stress had begun to appear. Beehr and Newman's (1978) seminal article on job stress, employee health, and organisational effectiveness, suggested that since many adults spend around half of their waking lives at work, it is entirely likely that work factors, in addition to social and psychological factors, would have an important influence on their wellbeing. By 1959, the Institute for Social Research at the University of Michigan had set up a research programme to investigate the relationship between the work environment and mental health. A review of this research concluded that "the industrial environment has powerful effects on the mental and physical health of the person" (Kahn & French, 1962, p.126-7).

Because the study of stress and the effects of stress on performance were largely influenced by occupational stress research, the following section will attempt to review the extant literature pertinent to occupational stress. The remainder of the chapter will critically examine research literature pertinent to the study of stress in sport. In particular, competitive and organisational stress in sport will be discussed, and an examination of the research into athlete stress will attempt to reveal some of the shortcomings of stress research within sport. The limited research that has explored the stress experiences of sports coaches will also be examined, and the aims of the thesis presented.

2.3.1 Identifying and classifying work stressors

Following Kahn and French's (1962) review of the Michigan Institute's work, Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964), investigated the nature, causes, and consequences of two types of organisational stress; role conflict and role ambiguity. Role conflict was described as the "simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other" (p.19). Role ambiguity was defined as the "extent to which required

information is available to a given organisational position" (p.25). Research into these constructs of role conflict and ambiguity marked the beginning of work stress research (Cooper & Dewe, 2004).

A plethora of studies into role conflict and role ambiguity followed (e.g., Rizzo House, & Lirtzman 1970; House & Rizzo, 1972). Indeed, Fisher and Gitelson's (1983) meta-analysis described 43 studies into role conflict and role ambiguity in work-based settings. Only two years later, 200 such studies were identified by Jackson and Schuler (1985), thus demonstrating the importance afforded to these two constructs by stress researchers. In addition to role conflict and role ambiguity, Kahn (1964) further identified "role overload" as a potential work stressor. Specifically, role overload can be described in terms of the amount of work to do in a limited time period. Sales (1970) referred to "role underload" as a condition where individuals are required to undertake a task that requires considerably less time to complete than the time available. In other words, having too little, as well as having too much to do, could also result in the experience of psychological strain. The notions of role conflict and ambiguity can easily be associated with sports coaching, a profession demanding multiple, often conflicting, technical, managerial, and administrative, roles.

Although the major focus in occupational stress research had been on the two constructs of role conflict and ambiguity, Cooper and Marshall (1976) provided the beginnings of an integrated framework and conceptual map for systematically considering work stressors, identifying 6 major categories of work stress. Specifically, these factors were: factors intrinsic to the job, role in the organisation, relationships at work, career development, organisational structure and climate, and home-work interface (see Figure 2.3). It must be remembered, however, that these categories were "artificially discrete" (Travers & Cooper, 1996). That is, from a transactional perspective, stressors are multifaceted, and could span more than one of these categories.

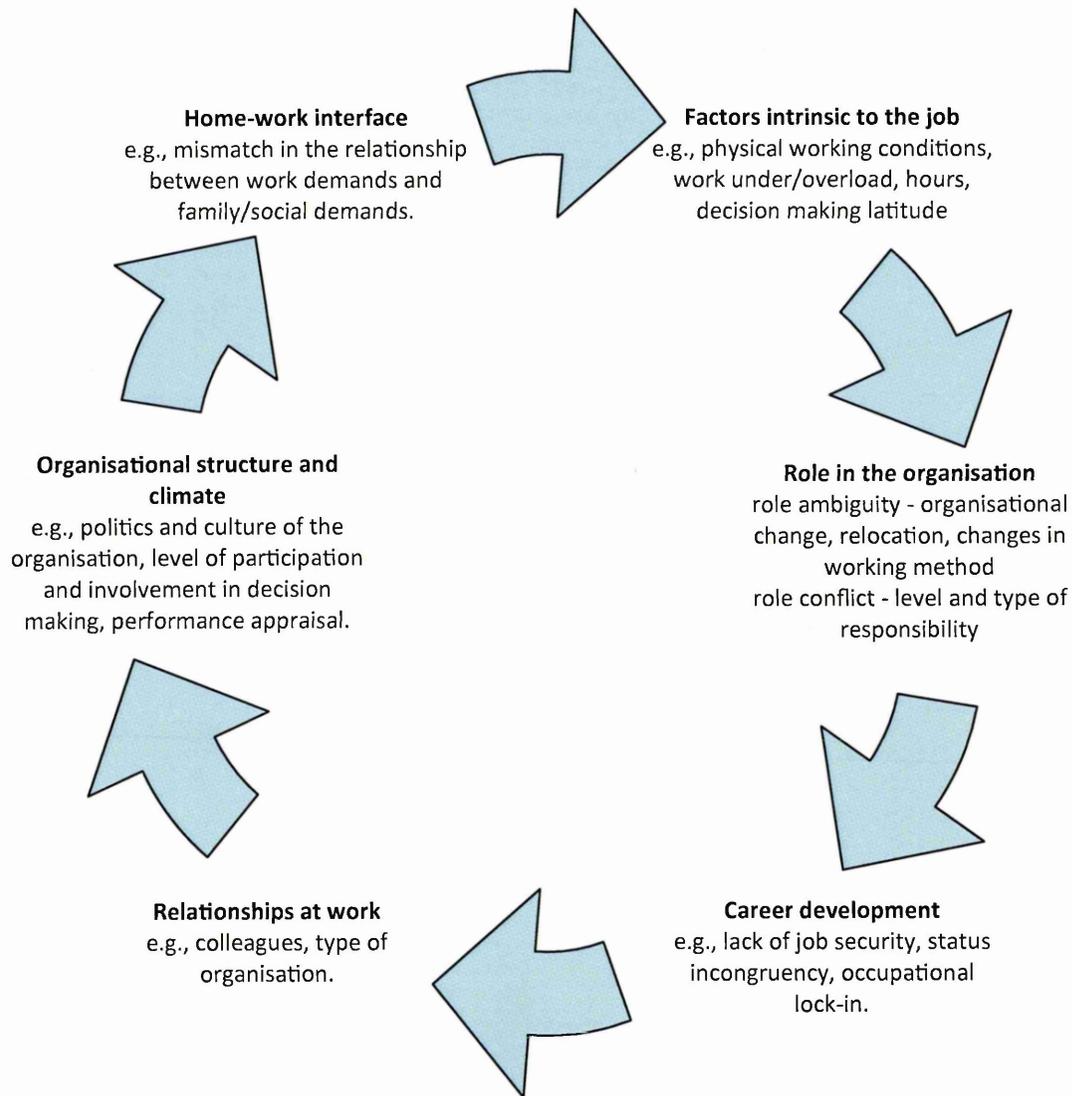


Figure 2.3 Cooper and Marshall's (1976) 6-Factor Theory of Job Stress.

These influential articles from Beehr and Newman (1978) and Cooper and Marshall (1976) appeared to provide the impetus for a surge in work stress research. Indeed, several reviews of work stress research subsequently confirmed that identifying various categories of work stressors was an important area of research (e.g., Kahn & Byosiere, 1992; Kinicki, McKee, & Wade, 1996). However, the conclusions drawn from reviews of studies exploring role conflict and role ambiguity often echoed Van Sell, Brief, and Schuler's (1981) assertion that although the volume of work on the two constructs was impressive, "it is disheartening to note that few conclusions can be drawn and the lack of specificity with which they must be stated" (p.66). That is to say that role conflict and role ambiguity might only be a small factor in the experience of occupational stress.

Despite all the reviews and the wide range of stressors identified, there is still this lingering concern that work stress researchers have, for too long, been preoccupied with the measurement of role conflict and role ambiguity.

(Cooper & Dewe, 2004, p.91)

Indeed, most of these studies *assumed* role conflict and role ambiguity to be the major stressors. However, in a study of over 400 employees from various occupations, Narayanan, Menon, and Spector (1999) found that role ambiguity and conflict were actually rarely mentioned as stressors in the workplace. Despite the debate over the use of role conflict and ambiguity, taken collectively, the research outlined above still demonstrated the importance afforded to identifying stressors in the workplace.

One area that has received significant attention in the occupational stress research literature is teaching. One such study (Winefield & Jarrett, 2001) explored occupational stress in the context of higher education. While non-teaching and non-academic staff were included in this questionnaire based study, the data were analysed for group differences and academics and heads/directors (i.e., those who had more in

common with sports coaches in terms of responsibility and interaction with subordinates), were shown to have the highest levels of stress. Participants were asked to rate 11 potential "sources of stress" as well as complete a 16 item job-satisfaction scale and a 12 item General Health Questionnaire (GHQ-12). Funding emerged as the highest rated stressor (with an average rating of 4.1 on a 5 point likert-type scale), while the ten other stressors, including the physical environment, decision-making, barriers to promotion/career progression, and staff conflicts, all had means around the scale midpoint. Although participants were asked to rate each of these stressors, it is unclear why the authors included this particular set of 11 potential stressors in their questionnaire. Indeed, it is possible that significant stressors existed which were not captured by the study, a limitation of this type of questionnaire-based research, which fails to capture the essence of the stress experience.

In order to gain an overall appreciation of the stress process, it is important to go beyond identifying and classifying the various stressors that are encountered in the workplace. As well as identifying stressors, exploring individuals' responses to stress has also been an important area of research in occupational stress.

2.3.2 Identifying and classifying work strain

Beehr and Newman (1978) identified psychological health consequences, physical health consequences, and behavioural consequences of stress, a taxonomy which has been used by most major reviewers of the work stress literature. However, Cooper et al. (2001) highlight the fact that, despite the existence of research into the responses and effects of stress, "researchers have paid only moderate attention to delineating the strain side of stress transactions" (p.72). In part, this might, again, be a result of discrepancies in the terminology used within stress research. Being "under stress" has a wide range of meanings, and most negative reactions, therefore, could be considered strains (Lazarus, 2006). However, a limitation of regarding any response as

strain is that we cannot know if a specific stressor has produced a specific effect. In any investigation of strain, it is therefore essential that the antecedents (whether a specific stressor, or the general experience of a number of stressors) are at least considered.

Considered a response to chronic stress, burnout has received perhaps the most significant research attention, in terms of occupational stress and strain. Burnout was defined by Maslach and Jackson (1986) as a "syndrome of emotional exhaustion, depersonalisation, and reduced personal accomplishment that can occur among individuals who do 'people work' of some kind" (p.1), and because of the issues of withdrawal that accompany it, burnout was considered particularly important in occupational stress. Emotional exhaustion was described as feelings of being overwhelmed, emotionally depleted, and lacking energy. Reduced personal accomplishment was characterised by feelings of low self-esteem and inadequacy. Depersonalisation was characterised by developing negative, cynical, dehumanised responses or withdrawn behaviours toward other people³.

Schutte, Toppinen, Kalimo, and Schaufeli (2000) discussed the fact that the specific emotional demands associated with dealing with unmotivated, troubled, or suffering service recipients had often been assumed to lie at the core of the syndrome, and that burnout would therefore be more likely to develop in professionals who interact with such recipients, and where interpersonal relationships are an inherent part of the job (e.g., nurses, teachers, counsellors, coaches). However, it is important to note that if, as Smith (1986) suggested, chronic stress can result in emotional exhaustion, a reduced sense of personal accomplishment, and eventual withdrawal, then this can have

³ It is perhaps worth noting that in sporting contexts, Raedeke, Lunney, and Venables (2002) developed an athlete specific version of the burnout inventory in which depersonalisation is replaced with "sport devaluation." Developing cynicism, therefore, was replaced with "a loss of interest, or resentment towards performance and the sport". However, the original Maslach and Jackson conceptualisation of burnout has been widely accepted and utilised in research into coaches and other sports practitioners (Goodger, Gorley, Lavalee, & Harwood, 2007).

widespread implications. Specifically, there are not only consequences for the individual suffering from burnout. Indeed, there is a potential impact on the organisation they are employed by (absenteeism and reduced productivity), and relationships with significant others might be affected.

Of interest again here is the significant body of research carried out in educational settings, where there is an interaction between learning provider and recipient. Here, a significant number of studies have attempted to identify not only the major stressors experienced, but also the responses to and effects of stress. For example, Gillespie, Walsh, Winefield, Dua, and Stough (2001) investigated occupational stress in universities and, although non-teaching staff were included in the study, focus groups were conducted and revealed five major sources of strain. Specifically, these stressors were a lack of funding, work overload (role conflict), poor management practice, insufficient recognition and reward, and job insecurity. However, the study also went beyond classification and categorisation of stressors and identified several perceived consequences of stress in terms of professional and personal impact. Professional consequences included job performance (not able to deliver the quality of work), interpersonal work relationships, and commitment (closing down in terms of effort and commitment), while personal consequences included a range of psychological (anxiety, burnout, anger, frustration) and physical (headaches, sleep disorders) health problems, as well as strained family and personal relationships.

Antoniou, Polychroni, and Valchakis (2006) found that the most highly rated stressors among 493 high secondary and primary school teachers related to problems interacting with students and students' lack of interest. While older teachers reported high levels of stress, the results also suggested that younger teachers experienced higher levels of burnout in terms of emotional exhaustion and disengagement from the profession. Based on the research literature, the interaction between students and

teachers seems to be a critical factor in teaching stress. Of importance here are the significant similarities between teaching and sports coaching. Although it is perhaps a leap to make specific and direct comparisons without research evidence, it is clear that these findings are of interest to coaching science researchers because of the strong associations between the two professions (Drewe, 2000; Gilbert & Trudel, 2001). In particular, the fact that younger teachers experience higher levels of emotional exhaustion and burnout is significant, and identifying the types of stressors that less experienced coaches might encounter in their roles could have implications for their development.

Jones (2002) outlined clear parallels between the workplace and the sporting environment, suggesting that organisational issues, stress, and leadership were three important areas in which similarities could be found. The ability to cope with stress is vital for high performing individuals and teams, and Jones further suggested that leaders (e.g., managing directors/coaches) are continuously visible and exposed, and, therefore, particularly vulnerable and isolated. While the study of stress in the workplace has certainly provided the foundations for our understanding of stress, strain, and coping, the focus of this thesis is on the experience of stress in the sporting arena. More specifically, the thesis will examine stress and coping in world class sports coaching. The study of stress in sport has been a fruitful area of research in sport psychology and the following section will review this literature.

2.4 Stress in Sport

Early research into stress in sport has typically focused on the antecedents or "sources" of stress (stressors) (e.g., Fletcher & Hanton, 2003; Giacobbi et al., 2004; Gould, Jackson, & Finch, 1993; Mellalieu, Neil, Hanton, & Fletcher, 2009; Noblet, & Gifford, 2002; Scanlan, et al., 1991; Thelwell, Weston, & Greenlees, 2007; Weston,

Thelwell, Bond, & Hutchings, 2009; Woodman, & Hardy, 2001), how the effects of stress (e.g., anxiety) relate to performance (e.g., Edwards & Hardy, 1996; Hanton, & Connaughton, 2002; Jones, Swain, & Hardy, 1993; Lazarus, 2000a; Parfitt, Jones, & Hardy, 1990), and coping strategies employed to minimise the potential effects of stressors that are encountered in the competitive environment (e.g., Campen, & Roberts, 2001; Giacobbi & Weinberg, 2000; Gould et al., 1993; Gould, Finch, et al. 1993; Nicholls et al., 2005a; Nicholls et al., 2009).

However, in accordance with the traditional work-based research, a significant proportion of the early research into athlete stress focused upon identifying the stressors that athletes experienced and the coping strategies they employed within the competitive environment. For example, Scanlan et al. (1991) interviewed 26 elite figure skaters (all former national championship competitors) with regard to the stressors they experienced during their careers. Inductive content analysis of the interviews resulted in the emergence of five major categories of stressor. Specifically, these were negative aspects of competition, negative significant other relationships, demands or costs of skating, personal struggles, and traumatic experiences. Closer inspection of the data revealed that both daily hassles and major life events (cf. Lazarus & Folkman, 1984) were significant stressors for these athletes during their careers, again, supporting the notion that no one "type" of stressor is universally stressful and that a transactional perspective should be adopted within the sport stress literature.

Gould, Jackson, et al. (1993) extended the work of Scanlan et al. (1991) by investigating stressors specific to the demands of defending a national title. Again, the stressors identified through inductive content analysis were, as hypothesised, similar to those that emerged in Scanlan et al.'s study. The most often cited stressors were high performance standards, environmental demands (such as dealing with the media, skating politics, and undesirable training situations), competitive anxiety and doubts

(including fear of failure, and lack of confidence), and issues relating to significant other relationships.

More recently, Campbell and Jones (2002) operationalised stress to include stressors that "can be appraised as positive (challenge), negative (threat, harm/loss), or a combination of both positive and negative" (p.83). Ten elite male wheelchair basketball players were asked, in an interview based study, to describe any stressors that they had experienced in the various aspects of their elite careers. Inductive content analysis of the interview data revealed 10 general dimensions of stressors. Specifically, these included numerous competitive stressors such as concern about letting the team down and playing an unbeaten team (negative match preparation), but also stressors such as concerns about who athletes would be rooming with (negative mental preparation), travel time, poor transport (negative aspects of major events), and poor access (lack of disability awareness).

Woodman and Hardy (2001) suggest that studies such as these that have investigated the "sources of athletes' stress" are valuable in enhancing our understanding of athletes' stressful experiences, but that they have failed to examine the origins of the stressors. They argued that stressors associated principally and directly with the organisational structure and climate, in addition to those associated with the competitive environment, could play a significant role in preparation for sport performance.

2.4.1 Organisational stress

As discussed in Chapter I, sport has become, and continues to be, a rapidly expanding, global industry. Alongside this growth, the number of sport organisations that exist has also risen. Fletcher et al. (2006) suggested that sport organisations are characterised by overlapping and ambiguous relationships with multiple other organisations (e.g., national governing bodies, international federations, sports leagues,

media, entertainment, and advertising groups), and that these relationships give rise to a “complex social and organisational environment” that places copious demands not only on sport performers, but also on other personnel who work within it. Along with the globalisation of sport and the rise of the sport organisation, stress associated with organisational factors has increasingly become a focus for sport psychology researchers (Fletcher & Hanton, 2003; Hanton, Fletcher, & Coughlan, 2005; Hanton & Fletcher, 2005; Woodman & Hardy, 2001).

Organisational stressors have been defined as "stressors associated primarily and directly with the organisational structure and climate" (Woodman & Hardy, 2001, p208). As part of a case study of organisational stress in sport, Woodman and Hardy interviewed 16 international, elite performers who were either current or recently retired athletes, with the aim of identifying the organisational stressors that athletes encounter. The sample was sourced from a single, individual sport, although for reasons of anonymity, a detailed description of the particular organisation was not possible. The authors argued that at the time, there was no theoretical framework upon which stress research in sport could be based and, as such, based their interview guide on Carron's (1982) model of group cohesion, theorising that organisational stress would be more likely in a setting where directors, coaches, managers and other organisation members do not form a cohesive group. As such, Woodman and Hardy deductively categorised emergent themes into one of four general dimensions. Specifically, based on Carron's (1982) model, these were environmental issues (selection, training environment, and finances), personal issues (nutrition, injury, and goals and expectations), leadership issues (coaches and coaching style), and team issues (team atmosphere, support network, roles and communication).

Fletcher and Hanton (2003) extended the work of Woodman and Hardy (2001) by sampling from a variety of sports. Based on Woodman and Hardy's theoretical

framework, Fletcher and Hanton examined the same four categories of organisational stressor. Emergent themes were categorised into one of these four general dimensions, but the authors were keen to point out that they went to great lengths "to ensure that an emergent design and inductive procedures remained intact" (p.191). Fourteen elite performers (one male and one female from seven different sports) were interviewed. Half were medal winners and, in contrast to Woodman and Hardy's study, all were current performers. Accommodation, travel and competition environment were themes that did not emerge in Woodman and Hardy's investigation but were found by Fletcher and Hanton to be important considerations.

Hanton et al. (2005) further emphasised the importance of organisational stress by comparing the content and quality of competitive organisational stressors in elite athletes. Specifically, ten international performers, again from a range of sports, were interviewed regarding the stressors they experienced in their respective sports. Participants were also asked about advice they had for sports scientists, coaches, and organisations. Ninety-three distinct stressors emerged from the interview data and were categorised first into higher order themes, and subsequently into five *post hoc* general dimensions: performance issues, environmental issues, personal issues, leadership issues, and team issues. According to the authors, performance issues "encapsulated all of the demands associated primarily and directly with competitive performance" (p.1132), and included themes such as inadequate preparation, injury, pressure, and the nature of the event.

Frequency analysis indicated that organisational stressors (n=215) were mentioned four times as often as competitive stressors (n=95). In addition, the mean number of participants citing competitive stressors (4.52) was greater than the mean number of participants citing organisational stressors (2.99). Hanton et al. (2005) suggested that the population used in their study were more likely to mention similar

competitive and more varied organisational stressors because "the former are inherent and endemic to elite sport." Organisational stressors, on the other hand, were described as "essentially extraneous and widely distributed" (p.1139). This may have particular implications for coaches who are more likely to be in a position where organisational factors have an impact on their day-to-day jobs. If organisational stressors are more salient for athletes, it is fair to suggest that this effect might be magnified with coaching populations.

The research outlined above certainly lends credence to the fact that organisational factors are important stressors for elite performers. For example, Scanlan et al. (1991) identified several stressors (skating politics, coach relationship problems, media demands and effects) which would fit neatly into Woodman and Hardy's (2001) conceptualisation of "organisational stress." In addition, Nicholls et al.'s (2006) study of stress in professional rugby identified "having to work on a Saturday," "thoughts of match press conference," and "off-field stressors" as significant stressors for athletes. Importantly, some consistency in these findings appears to have emerged, and it is clear that sports performers have to be able to cope with a wide range of organisational as well as competitive issues.

Recommendations from Fletcher, Hanton, and colleagues have generally been that applied sport psychology practitioners should be equipped to address the overall stress experienced by elite performers, and that the interactive effects of organisational and competitive stressors should be considered if appropriate interventions are to be designed. Fletcher and Hanton (2003) suggest a number of avenues for future research in the area. Again, while the organisational stressors were examined in detail via interviews, the effects of and responses to stressors were not addressed. Although Fletcher and Hanton counted the frequency with which stressors were mentioned, this does not necessarily correlate with the magnitude of a stressor's impact upon an

individual. For example, the most frequently referred to stressor in the general dimension of "personal issues" was "importance placed on diet." However, this is not to say that this caused a more significant stress response than, for example, "pressure because of injury," which was cited half as many times. Fletcher and Hanton conceded that it would be unwise to assume that these factors are always detrimental to performance. Although Woodman and Hardy's (2001) study was entitled "A Case Study of Organisational Stress in Elite Sport", their investigation was limited to identifying stressors that elite athlete's experience in preparation for major competition. Furthermore from an examination of the interview guide they used, along with the athlete quotes provided in the text, it could be argued that in some cases Woodman and Hardy merely assumed that what the athletes reported were, in fact, significant stressors for them. Little attention was given to the effects of the stressors for the athletes in the study, although the authors did suggest that an avenue for future research would be to see how much performance variance could be accounted for by organisational stressors (i.e., what are the actual effects of organisational stress on performance?).

The use of Carron's (1982) model of group cohesion as a theoretical underpinning to the study can also be questioned. First, Carron's model of group cohesion was based on the fact that antecedents of group cohesiveness in sport *seem* to fall into the four categories described above. Second, Carron argued that the focus of cohesiveness in sport research has been almost exclusively upon the effects of cohesiveness on performance, but that performance has largely been measured in terms of win-loss ratios or other absolute measures. Little research has explored whether cohesiveness in sport affects, for example, behaviour change, enhances role clarification or contributes to group stability. Woodman and Hardy (2001) seemed to suggest that a lack of group cohesiveness contributes to organisational stress and based the deductive

part of their analysis on this assertion. However, as Carron points out, there is little empirical evidence to suggest this is the case.

The stress experiences of elite athletes have been studied in depth over the last two decades, and this area continues to draw significant research attention (e.g., McKay et al., 2008; Mellalieu et al., 2009; Weston et al., 2009). However, Woodman and Hardy (2001) argue that in order to conduct a more thorough investigation of stress within sport organisations, researchers need explore the stress experiences of "non-performing" members of the organisation' (p.232). Coaching itself has been consistently described as an inherently stressful occupation (Gould , Guinan, et al., 2002; Kelley & Gill, 1993; Taylor, 1992) yet coaches are members of sports organisations who have, until somewhat recently, received little attention in terms of stress research.

2.4.2 "Coaches are performers too"

Although athletes' experiences of stress in competitive and later in organisational, contexts have dominated the field of research, a limited number of studies have explored the stress experiences of "other members" of sporting organisations. Specifically, within the sporting arena, stressors have been identified for referees and officials (cf., Rainey, 1995; Rainey, 1999; Tsorbatzoudis, Kaissidis-Rodafinos, & Grouios, 2004), as well as for those in management roles such as college athletic directors (Ryska, 2002). However, despite coaching and coaching style being consistently identified as stressors by elite athletes in the studies outlined above, it is the coaches who have been somewhat neglected. Compared to other similar occupations involving a helper-recipient style relationship (e.g., teaching), coaches' experiences with stress have not been examined in any depth. However, Carron (1982), upon whose model of group cohesion a significant amount of organisational stress research appears to have been based, even suggested that environmental factors "should have a common influence on both the coach and the athlete" (p.131). Indeed, several authors have

suggested that coaches are required to “perform” in the competitive environment, and should, therefore, be considered as “performers” in their own right (Frey, 2007; Gould, Guinan, et al., 2002; Thelwell et al., 2008b). It could be argued, however, that given the variety of organisational roles the coach is required to carry out (Lyle, 2002), their “performance” is not necessarily limited to the competitive environment. Whereas earlier research focused on identifying stressors and incidence of burnout in coaching, recent studies have begun to delineate the stress experiences of coaches (e.g., Frey, 2007).

2.5 Coaching Stress Research

The coaching role encompasses more than merely providing technical and strategic instruction for athletes. The relationship between athlete and coach is vital for athletes' performances and overall satisfaction (Jowett & Cockerill, 2003), and coaching has been described as a complex and interpersonal process (Lyle, 2002). Given the importance of the athlete-coach relationship in fostering peak-performance at the world class level (Baker, Yardley, & Côté, 2003; Jowett, 2005; Jowett & Cockerill, 2003; Vealey, Armstrong, Comar, & Greenleaf, 1998) and the pressure that coaches are required to work under (Gould, Guinan, et al., 2002), it is unsurprising that coaches themselves perceive their jobs to be stressful (Kroll & Gundersheim, 1982). The following section will discuss the findings from studies that have attempted to identify coaching stressors, will explore the potential consequences of stress for sports coaches, and will discuss some of the limitations of the research carried out with coaching populations.

2.5.1 Coaching stressors

As with athlete stress research, identifying the stressors that coaches experience has been prominent among the somewhat sparse number of studies that have

investigated coaching stress. In one early study of high-school coaches in North America (Kroll & Gundersheim, 1982), coaches reported that interpersonal stressors (e.g., disrespect from athletes) were the "most significant" for them. At the collegiate level too, coaches have reported several stressors that they encounter in their roles, including financial, athlete, and recruiting issues (e.g., Frey, 2007; Pastore, 1991; Taylor, 1992; Wang & Ramsey, 1998). Based largely on research in occupational settings, Taylor suggested that stressors in coaching would fall into three broad categories. Specifically, these were personal stressors (factors intrinsic to the individual, such as lack of experience, lack of skills, or self-doubts), social stressors (interactions with others both in and outside of the immediate working environment), and organisational stressors (factors originating "within the team's organisational superstructure," such as long hours, lack of organisational support, and budget/financial concerns). However, Taylor's assertions have yet to be empirically tested with coaching populations.

In a study of collegiate coaches, effective communication, creating a positive and motivational team atmosphere, keeping non-starters motivated, and lack of financial assistance were identified as the most significant challenges for new coaches (Wang & Ramsey, 1998). In a more recent study, Frey (2007) employed a semi-structured interview approach to explore the stress experiences of 10 NCAA Division I coaches, the perceived effects of stress on their coaching performance, and the coping strategies they employed. In terms of the stressors, findings indicated that communicating with athletes, lack of control over athletes, the process of recruiting athletes into the programme, and having multiple roles and responsibilities were cited as stressors. Importantly though, Pastore (1991) and Frey (2007) both identified stressors that coaches perceived would increase the likelihood of them withdrawing from the profession. Specifically, coaches felt that factors such as having less time to spend with

family, lack of financial incentives, losing passion for the job, and the intensity of recruitment were reasons coaches gave for leaving their jobs. These findings are particularly important as they highlight the potential impact that experiencing stress and strain can have on coaches working in a pressured environment. Indeed, the factors described above appear closely linked to the emotional exhaustion, reduced sense of personal accomplishment negative or withdrawn behaviours that characterise burnout, further supporting the notion that burnout might be a consequence of exposure to chronic stress.

2.5.1.1 Issues in coaching research

While the research outlined above has certainly given some insight into the stressors that are potentially involved in high-school and collegiate coaching, there are a number of issues worthy of consideration. Taylor's (1992) assumption that coaching stressors would be classified as personal, social, or organisational was based largely on research from non-sport based settings (i.e., teachers, public agency employees). For example, the notion that athletes would be a stressor for coaches was based on teaching research that had revealed students to be stressors for elementary, student, and full-time school teachers (Gorrell, Bregman, McAllister, & Lipscomb, 1985). While it is clear that there are parallels between teaching and coaching, not the least of which is the highly interpersonal nature of the role (Drewe, 2000; Gilbert & Trudel, 2001), we cannot merely assume that the stressors experienced in both roles will be identical.

Kroll and Gundersheim (1982) concentrated only on the stress factors influencing high-school coaches on a day to day basis. Again, while this does shed some light on the "daily hassles" that coaches encounter in the high-school environment, the study ignored any stressors that could be considered competitive in nature. In terms of their method of investigation, it is unfortunate that Kroll and Gundersheim were no more specific than explaining that they used "questionnaires and personal interviews."

Along similar lines, coaches in Pastore's (1991) study were provided with a list of stressors that might lead to them leaving the profession, and asked to rate the most significant. However, it is unclear as to how this list of stressors was generated.

In developing the Inventory for New Coaches' Challenges and Barriers (INCCB), Wang and Ramsey (1998) developed the 26 questionnaire items based on consultations with "many coaches at the collegiate levels" (p.6). Again, no further detail was given as to how the inventory items were chosen. In using the INCCB, participants are asked to rate their agreement with a series of statements" using a 1-5 likert-type scale. For example, statements such as "it is not easy to get the returning players' cooperation" and "establishing a good relationship between returning players and new players has been a difficult challenge for me as a coach," are included. However, because a coach agrees that something has been a challenge for him or her, it does not necessarily follow that it is a significant stressor in terms of causing some sort of strain response. Again, this highlights the need to explore coaches' responses to stressors and the effects of stress.

Finally, to measure issues specific to sports coaching that might result in strain and, ultimately, burnout in coaching, Kelley and Baghurst (2009) designed the Coaching Issues Survey (CIS). According to Kelley and Baghurst, the CIS was born from a need for a reliable instrument to assess coaching specific factors that could lead to the perception of increased stress among coaches. The precursor to the CIS was Hunt's (1984) 60-item Degrees of Stress Scale (DSS). As with the INCCB, the DSS was developed through "feedback" from collegiate coaches, and assessed 14 stressor categories (including interpersonal relations, pressure to win originating from outside the college/university, pressure to win originating from administration of the college/university, career development, factors affecting the game, recruitment, and support) (Kelley & Baghurst, 2009). In developing the CIS, Kelley and Baghurst reduced the DSS to 32 initial items across five subscales for the CIS. After factor

analysis, two further items were dropped and the 30 items were spread across four subscales: Win Loss Issues (e.g., placing pressure on myself to win, momentum turning against my team in a contest), Time Role Issues (e.g., not having enough time to devote to my coaching responsibilities, substantial number of hours spent working in a day), Programme Success Issues (not being able to hire adequate assistant coaches and support staff, not knowing the criteria by which I will be judged), and Athlete Concerns Issues (understanding my athletes' emotional responses and motivations, personality conflicts with my players).

Comparisons can certainly be made between the four factors of the CIS and the stress factors discussed by coaches in previous research carried out with collegiate level coaches. For example, athlete concerns, such as motivating players, and time role issues, such as managing multiple roles, have all been cited by coaches as stressors (e.g., Frey, 2007). Furthermore, all of the CIS factors were found to be predictive of stress, with Time Role Issues accounting for 29% of the variance in perceived stress (Kelley & Baghurst, 2009). However useful the CIS might be for measuring the factors that could lead to perceived stress for collegiate coaches, the scale cannot be generalised to other coaching groups. Furthermore, through the entire process of developing the survey, the only coaches used were from NCAA Division II and III colleges. It is reasonable to think that at higher levels of coaching, factors influencing the perception of stress among coaches might be somewhat different. At the elite level, and outside of the North American College system, further research is certainly required to explore the factors associated with coaches' experiences of stress.

Taken together, the above research has certainly shed some light on the stressors that can occur in sports coaching. However, it is also clear that there is a continued need for investigation not only at world class level, but without imposing pre-existing frameworks on the data. Specifically, it could be argued that the organisational stress

research carried out with athlete populations has been somewhat constrained by the imposition of Carron's model of group cohesion on the emergent data. Similarly, the coaching stress literature has been largely based on research from work-based settings and occupations considered similar (e.g., teaching). While there are certainly parallels, dedicated coaching research at the elite level is certainly warranted. Qualitative methods of enquiry enable researchers to develop an in-depth understanding of the participants' personal constructs and experiences from their perspective (Ezzy, 2002). Consequently, the use of qualitative methods such as in-depth interviews, in which the stressors experienced by world class coaches are allowed to emerge inductively, would seem to be the most appropriate method of data collection.

As was important for occupational stress research in general, to gain an overall understanding of coaches' experiences of stress, it is essential to go beyond identifying and classifying the multitude of stressors that are encountered as part of their multifaceted and complex roles. Exploring the ways in which coaches' respond to stressors must also be an integral part of any research into coaching stress.

2.5.2 Responses and effects of coaching stressors

One of the few comprehensive studies investigating the stress experiences of coaches sought to explore the responses and effects of stress in collegiate coaching (Frey, 2007). The coaches in this study felt that experiencing stress could have a negative affect on their behaviours (e.g., body language becoming agitated), emotions (e.g., becoming more "moody"), and thoughts (e.g., losing the ability to focus), as well as negative physiological changes (e.g., tension). Importantly, coaches also discussed the fact that their stress could have a negative influence on their athletes' performance. Frey's (2007) study aside, the majority of the research conducted in this area has tended to focus on the relationship between stress and burnout (e.g., Kelly, 1994; Kelley & Gill,

1993). As discussed previously (pp. 37-39), burnout seems especially prevalent in occupations involving a high degree of social interaction.

There is no doubt that performance sports coaching is an interpersonal phenomenon. Indeed, several authors have commented upon the complex and dynamic interpersonal relationships between coaches and athletes (e.g., Baker, et al., 2003; Chelladurai, Haggerty, & Baxter, 1988; Lyle, 2002; Martens, 2004). Significantly, within the sporting domain, both athletes and coaches report interactions with each other as factors contributing to burnout (Dale & Weinberg, 1989; Gould, Udry, Tuffey, & Loehr, 1996; Gould, Udry, Bridges, & Beck, 1997; Vealey, Udry, Zimmerman, & Soliday, 1992).

Relationship issues should not be thought of as "add-ons" to the coaching process. They are central, significant and, often, key to the satisfactory maintenance of the coaching contract (p.152).

Lyle (2002)

While burnout has implications for the coaches themselves (e.g., emotional exhaustion, depersonalisation, withdrawal), it appears that stress in coaching can also have an impact on the athletes. Indeed, the consequences of burnout in coaching have also been examined, although the research is somewhat limited. Goodger et al. (2007) reviewed a total of 58 published studies into burnout in athletic environments. Of these, 23 focused on coaches but only two of these 23 studies sampled populations from outside North America, again highlighting the need for research with elite coaches in the UK. In one study, Price and Weiss (2000) examined the relationships between coach burnout, coach behaviours, and athletes' psychological response among 193 female high school soccer players and 15 head coaches. Coaches who reported high levels of emotional exhaustion were perceived by athletes as making more autocratic and fewer democratic decisions, providing less training instruction and less social

support. Furthermore, coaches who displayed these behaviours were associated with athletes who reported higher levels of anxiety.

Vealey et al. (1998) explored the influence of perceived coaching behaviours on burnout and competitive anxiety in 149 female college athletes. Athletes scoring higher on the burnout dimensions of negative self concept, emotional and physical exhaustion, psychological withdrawal, and feelings of devaluation, perceived that their coaches were less empathetic, emphasised "dispraise" rather than praise, displayed a more autocratic coaching style, and perceived winning more to be more important than athlete development. Importantly, coaches that scored higher in emotional exhaustion and depersonalisation were more likely to exhibit these behaviours. If the stress explanation is useful in explaining burnout experiences as Cresswell and Eklund (2006) suggested, it would appear that coach stress does indeed have an effect, even if indirect, on athletic performance and is therefore worth investigating in more detail.

It is apparent even from the sparse research into coaching stress, that the ways in which coaches respond to stressors might have important implications for their own wellbeing and for the performance and satisfaction of their athletes. However, this area of research is still relatively unexplored, with Frey's (2007) study of stress in collegiate coaches being one of few which has examined the specific responses and effects of stress for coaches. Again, given the importance of the relationship between athlete and coach and the fact that coach stress appears to impact upon athletic performance, exploring the responses and effects of stress (personal and professional) for coaches operating on the international stage is an important area of research.

2.5.3 Coping with stressors

As discussed earlier, the ability to cope with stressors is considered an important factor in determining whether or not performers will achieve their desired level of

success and whether or not engaging in sport will be a satisfying experience for the performer (Nicholls & Polman, 2007). Yet again, however, coaches have been relatively ignored in this respect, and the majority of research has, until very recently (e.g., Levy et al., 2009) focused on the ways in which athletes cope with the stressors that they encounter. This is not to say that this research has not been fruitful. Indeed coping styles and strategies have been investigated in an extensive range of sports, including athletics (Dale, 2000; Madden, Kirby, & McDonald, 1989), basketball (Anshel & Kassidis, 1997), cricket (Holt, 2003), figure skating (Gould, Finch, et al., 1993), golf (Gaudreau, Blondin, & Lapierre, 2002; Giacobbi et al., 2004), and round the world sailing (Weston et al., 2009). From an applied perspective, developing a greater understanding of how elite performers cope with the demands of their sports is of obvious benefit.

However, while it seems clear that coaching is a stressful occupation, little is known about the ways in which coaches manage stress (Frey, 2007). Frey shed some light on the coping strategies of NCAA Division I head coaches, with coaches citing cognitive strategies (e.g., focusing on the processes rather than winning), emotional-control strategies (e.g., social support), and behavioural strategies (e.g., preparation), in their attempts to manage stress. Other studies of high-school and collegiate coaching have examined the coping strategies used by coaches (e.g., Happ, 1998; Kosa, 1990). Using the Ways of Coping Questionnaire, Happ (1998) found no significant differences between the coping strategies of female coaches across NCAA divisions. Kosa (1990) administered the Jaloweic Coping Strategies Inventory (JCSI) (Jaloweic & Powers, 1981) to identify the coping strategies used by secondary school coaches. Interestingly, problem-focused coping was negatively related to two of the burnout dimensions; depersonalisation and personal accomplishment. However, tension-releasing coping (e.g., getting angry, crying, worrying) was positively related to higher frequency and

intensity of emotional exhaustion and depersonalisation. Although the findings certainly suggest that the coping methods employed might have some impact on the occurrence of burnout symptoms, the JCSI was developed with hypertensive and accident and emergency patients, therefore its use in this setting can be questioned.

In measuring and assessing coping strategies and styles, quantitative methods have generally been preferred. Indeed, of the 64 athlete based coping studies reviewed by Nicholls and Polman (2007), 52 employed quantitative methods. However, as coaches are increasingly being regarded as performers in their own right, research attention has turned in their direction. As such, there is an increasing need for in-depth inquiry regarding the coping strategies employed by coaches at the elite level, especially as evidence points to effective coping being related to positive outcomes (e.g., Ntoumanis & Biddle, 1998).

While Frey (2007) used interviews to gain an in-depth understanding of the coping strategies used by collegiate head coaches, Bruening and Dixon (2007) used online focus groups to explore the ways in which role conflict between work and family was managed by 41 female collegiate head coaches. Further, in one recent study, Levy et al. (2009) carried out a longitudinal diary study with one UK-based elite coach, to explore organisational stressors, coping, and coping effectiveness. One coach recorded the organisational stressors he encountered, his coping responses, and the effectiveness of such, over a 28-day period. Organisational stressors consistent with previous research were identified (e.g., administration, communicating with management, financial issues) and a total of 70 coping strategies were reported by the participating coach, with communication, planning, preparation, and social support, and self-talk cited most frequently. Hanton et al. (2005) suggested that there may be differences apparent in the strategies performers (in their case, athletes) use to cope with organisational compared with competitive stressors. However, Frey (2007) found

similar coping strategies in her study of collegiate coaches' performance related stressors (e.g., preparation, social support), to those found by Levy et al. (2009) in their organisational stress study. This highlights the inherent difficulty in linking specific responses and coping strategies to specific stressors, as stressors are likely to be experienced in combination, rather than as isolated demands occurring one at a time.

Funding and the future of sporting organisations are increasingly relying on successful performances at major sporting events such as the Olympic Games. It is well documented that coaches' behaviours can have a significant impact on athletes' performances, moods, emotions etc (cf., Horn, 2008). Furthermore, coaches are reliably cited as stressors for them in research exploring athletes' perceptions of stress. Given the importance of the relationship between the coach and the athlete in moving towards successful performance, further research exploring the ways in which elite coaches attempt to cope with the stressors they encounter in the world class environment is certainly needed.

2.6 Summary and Aims of the Thesis

The study of stress has largely been driven by occupational psychology and the need to explore stress, stress responses, and the ways in which individuals cope with stress, in work-based settings. A large proportion of this research initially focused on role ambiguity and role conflict as important organisational stressors, and burnout as a response or consequence of chronic stress. With the rise of sport as a global entity and an increase in the number of sport organisations, the study of stress in sport has become an important topic for sport psychology researchers. Specifically, the stressors that performers encounter, the ways in which their responses to stress influence performance, and the coping strategies used to deal with various competition and organisational stressors have received a significant amount of research attention.

As part of the recent shift towards the study of organisational stress in sport (Woodman & Hardy, 2001), other members of sporting organisations have begun to receive more research attention and studies of athlete stress and coping no longer dominate the research landscape. While coaches have traditionally received comparatively scant research attention, they have recently become regarded as performers in their own right, reflected in the increased importance afforded to coaching research (e.g, Erickson, Côté, & Fraser-Thomas, 2007; Frey, 2007; Levy, et al., 2009). However, this research has been limited both conceptually and in scope providing the rationale underpinning the general aims of this thesis. More specifically, four main areas have been identified as warranting further research attention.

First, the overwhelming majority of research into coaching stress has focused on high-school and collegiate level coaching in North American educational institutions. In particular, dual-role, teacher-coaches have been the focus of much of this research (e.g., Kelley, 1994; Kelley & Gill, 1993). The experience of coaching within the unique culture of world class sport, and therefore coaches' experiences of stress in such an environment, are likely to be very different and require further investigation.

Second, the identification and categorisation of stressors has also formed a large section of the extant coaching stress research literature. Again, this has largely focused on collegiate level coaching and, as discussed in section 2.5.1.1 (p.50), there are a number of methodological issues with the studies that have used quantitative methods to identify the stressors experienced in coaching. Research into organisational stress using athlete populations has largely used Caron's (1982) model of group cohesion as a deductive framework for the emergent stressors and to some extent, this has also been adopted in coaching stress research (Thelwell et al., 2008b). While Woodman and Hardy (2001) suggested that a lack of group cohesiveness contributes to organisational stress, Carron claimed that there is limited empirical evidence to support this notion. It

seems fair to suggest that studies into stress in sport might have been limited by imposing a pre-existing framework of organisational stress onto the emerging data.

Third, research into the responses and effects of stress has focused on the relationship between stress and burnout and, again, collegiate and high-school dual-role coaches have been of most interest to researchers. From a transactional perspective, the ways in which coaches respond to stressors and the effects of stress for coaches are important areas of investigation. However, to date, little research has focused on the ways in which coaches are specifically affected by the stressors they encounter.

Fourth and finally, it has been well documented that the behaviour of a coach can have an influence on the perceptions of their athletes and, hence, on athletic performance. Indeed, coaches are invariably mentioned as stressors for athletes in studies of athlete stress (e.g., Fletcher & Hanton, 2003; Hanton et al., 2005; Woodman & Hardy, 2001). As performance "on the field" becomes increasingly important to the continued funding of sport programmes, the ways in which coaches attempt to cope with the stressors they encounter is becoming an ever more significant area of research. Nevertheless, it is an area of research that remains relatively underexplored.

Acknowledging the extant literature surrounding stress in sports coaching, a major purpose of this thesis was to explore, in depth, the phenomenon of stress within the unique culture of world class sport. The overall aim of this thesis was to bridge the gap between research and practice by:

- informing coach education and development programmes
- providing practical recommendations for sport organisations and for sport psychology practitioners working with coaches
- developing an intervention programme based on the experiences of successful, world class coaches, and aimed at enhancing the performance of less experienced, development coaches in world class sports programmes.

The expectation of our coaches taking these people to the Olympics is to win medals.

That's the expectation. It's not to *get* to the Olympics, it's to *perform* at the Olympics.

There's a lot of pressure on the coaches going in.

(Coach of double Olympic gold medal winner)

CHAPTER III

Study One

Stress in Elite Sports Coaching: Identifying Stressors¹

. . . whatever else changes, coaches and coaching will remain at the heart of sporting performance at every level.

(UK Sport, 2000, p.2)

3.1 Introduction

Several authors have commented on the stressful nature of sports coaching (e.g., Gould, Guinan, et al., 2002; Taylor, 1992) and, while the coach-athlete relationship appears to be a central and a challenging aspect of coaching, coaches have many additional roles to perform. Indeed, coach education programs commonly describe how coaches must adopt multiple roles including that of instructor, mentor, friend, organiser, educator, and counsellor to their athletes (Lyle, 2002). However, as Lyle suggested, this typical examination of the role of the coach does not begin to uncover the complex and interpersonal process that is coaching. Other professions with a high degree of personal interaction have received significant research attention with stressors having been identified in occupations such as nursing (Prymachuck & Richards, 2007) and the police force (Thompson, Kirk, & Brown, 2006), although perhaps the most significant body of research into occupational stress has emerged from the teaching professions (cf., Gillespie et al., 2001; Winefield & Jarrett, 2001).

¹ The study reported in this chapter has been published in a peer reviewed journal: Olusoga, Butt, Hays, & Maynard (2009). Stress in elite sports coaching: Identifying stressors. *Journal of Applied Sport Psychology*, 21, 442-459.

Within athletic environments, studies have identified the stressors experienced by referees and officials (e.g., Rainey, 1995; Rainey, 1999), as well as the stressors of those in management roles such as collegiate athletic directors (Ryska, 2002). Nevertheless, as Hanton et al., (2005) suggested, "a more in-depth and broader understanding of the stressors that reside in elite sport will allow scientists, coaches and organisations to design more appropriate interventions to manage the demands placed on performers" (p.1131).

Thelwell, Weston, Greenlees, & Hutchings (2008a) argued that given the multiple roles a coach must assume and the technical, physical, organisational, and psychological challenges those roles entail, coaches should be regarded as performers in their own right. Despite this, it is important to note that coaches' performances (and future employability) are often judged by the success of their athletes (Gould, Guinan, et al., 2002). It is not surprising, therefore, that coaches experience stress as a result of the growing demands they encounter. Indeed, Kroll and Gundersheim (1982) found that in a sample of 93 male high-school coaches, all participants perceived their jobs to be stressful, with interpersonal relationships (e.g., disrespect from players and not being able to reach athletes) identified as the most significant stressors. Although research conducted into coach stress has tended to focus on the relationships between stress and coach burnout (e.g., Kelley & Gill, 1993), several studies have identified the stressors associated with sports coaching. For example, Sullivan and Nashman (1993) found that selecting athletes, representing their country, lack of preparation time, and spending time away from family were the primary stressors encountered by Olympic head coaches during their experiences of coaching at the Olympic Games. In addition, effective communication, creating a positive and motivational team atmosphere, keeping non-starters motivated, and lack of financial assistance have been identified as

significant challenges for new coaches (Wang & Ramsey, 1998). These findings are particularly noteworthy given that stress factors such as having less time available to spend with family and friends, lack of financial incentives, and increased intensity of recruiting, were the most important reasons given by collegiate level coaches for leaving the profession (Pastore, 1991).

In a more recent study, Frey (2007) used a semi-structured interview approach to investigate the stress experiences of 10 NCAA Division One coaches, the perceived effects of stress on their coaching performances, and the coping strategies they employed. Findings indicated that communicating with athletes, lack of control over athletes, recruiting, and having multiple roles and responsibilities were cited as stressors. Furthermore, these coaches reported that factors including a desire for more free time, interference with family life, and losing passion for the job, were stress factors that might increase their likelihood of leaving the profession. Taken collectively, the available research in this area demonstrates the various challenges that coaches can encounter, and illustrates the potentially stressful nature of sports coaching.

Although Frey's (2007) findings highlighted the dynamic relationship between stressors, responses, and coping efforts, and therefore a continued need for a qualitative approach to the study of coaching stress, the sample used was narrow, and interviewing a broader sample of coaches was suggested as a useful adjunct to the existing literature. Indeed, the majority of research into coaching stress has sampled high-school and collegiate, dual-role teacher-coaches in North American educational institutions, whose experiences of stress might be tempered by the dual-role nature of their jobs (Capel, Sisley, & Desertrain, 1987). The stress experiences of coaches immersed in the unique culture of world class sport are likely to differ considerably. For example, the Olympic environment is considered unlike any other and thought to be an important factor

influencing the performance of Olympic athletes and coaches (Gould et al., 1999).

Further, research into the psychology of performance excellence suggests that coaching issues play an important role in the performance of athletes at this level (e.g., Greenleaf et al., 2001). Despite coaching being thought of as an inherently stressful occupation (Kelley & Gill, 1993), and despite coaches invariably being highlighted as stressors by elite athletes, coaches are often mistakenly seen as 'problem solvers', rather than those who can succumb to stress (Frey, 2007). This assumption might go some way to explain why coaches' experiences of stress within the unique culture of world class sport have not been studied in depth.

Despite the growing interest in coaching stress, and the resulting developments in knowledge, researchers have identified several areas worthy of further investigation. The interactional conceptualisation of stress, adopted in much of the early occupational stress research, led to three important research areas receiving significant attention: the identification and organisation of stressors, the relationships between various stressors and strains, and the organisational, individual, and situational variables that moderate those relationships (Cooper & Dewe, 2004). This conceptualisation has guided research in sport psychology with early studies focusing on the identification of stressors experienced by elite athletes (and the coping strategies they use) within the competitive environment (cf., Gould et al., 1993; Gould, Jackson, et al., 1993; Scanlan et al., 1991). Nevertheless, Woodman and Hardy (2001) argued that although studies investigating athlete stress provided insight into the stress experiences of elite athletes, they have failed to examine the origins of stressors. Consequently, several studies have since investigated organisational stress in sport (e.g., Fletcher & Hanton, 2003; Hanton et al., 2005) and have generally found that organisational stressors (i.e., the environmental demands associated primarily and directly with the organisation within which an

individual is operating) are mentioned by athletes more than competitive stressors as being significant for them. Woodman and Hardy suggested that to continue to develop our understanding of stress in sport organisations, the stress experiences of who they referred to as "non-performing" members of those organisations (e.g., coaches, managers, administrators, and other support staff) also need to be thoroughly investigated.

Stress research in sport has suffered from a lack of definitional clarity (Hardy et al., 1996). Specifically, the term 'stress' has been used interchangeably to describe a stimulus, a response, or an interaction between the two (see section 2.2 for a full discussion). In an attempt to provide a consistent approach within the field, Lazarus' transactional theory of stress (Lazarus & Launier, 1978) has been readily adopted within the sport psychology literature. This transactional conceptualisation of stress places the emphasis on the dynamic relationship between environmental demands (i.e., stressors) and an individual's psychological resources for dealing with them (i.e., coping ability; hardiness), with stress responses (i.e., strain) resulting from a perceived imbalance between these demands and resources. Adopting a transactional approach to stress has certainly developed the field, not least in providing researchers with consistent definitions of the key terms involved. As identified by Fletcher et al., (2006), in keeping with the transactional approach to the study of stress, research must focus not merely on the relationships between various stressors and strains, but on the overall stress process. Fletcher and Fletcher's (2005) meta-model of stress, emotions and performance (see section 2.2.7, pp. 27-30), also provides a conceptual framework for the discussion of the various elements of the stress process.

3.2 Study Aims

While significant research has investigated elite and champion athletes' experiences of stress (e.g., Giacobbi et al., 2004; Gould, Jackson, et al., 1993; Nicholls et al., 2006), coaches of elite athletes have received comparatively little research attention in (Frey, 2007). Based on existing literature, before their overall experiences of stress can be fully understood, it is clear that within the arena of world class sport, a more detailed understanding of the demands facing coaches is necessary. Therefore, the first in a series of studies exploring the stress experiences of world class sports coaches, the purpose of the present study was to identify the stressors these coaches encountered in their experiences coaching world class athletes.

3.3 Method

3.3.1 Participants

With institutional ethics approval², twelve world class sports coaches (6 males, 6 females) aged between 36 and 64 years (47.3 ± 7.6 years) participated voluntarily in the study. Coaches had between 6 and 22 years (14.5 ± 5.5 years) experience coaching at a world class standard, were all based in the UK, and represented eight sports: (diving, sailing, swimming, bowls, equestrianism, field hockey, lacrosse, and table tennis). Coaches were purposefully selected (Patton, 2002) from a variety of sports to ensure that a wide range of sporting organisations was represented (Fletcher & Hanton, 2003). In order for coaches to meet the specific criteria of the study, they reported finding their jobs stressful prior to the interview commencing. As part of the selection criteria, coaches were considered world class if they had previously coached at an Olympic Games, World Championships, World Cup, and/or Commonwealth Games. In addition,

² Ethics approval for studies one and two was applied for and granted by Sheffield Hallam University, based on the study consisting of "minor procedures" (See Appendix A).

nine of the 12 coaches had competed as elite senior athletes in their sports, while one had competed at a junior international level. At the time of interview, one coach had just returned from a World Cup, one was in preparation for their World Championships, two coaches were in the middle of a four year World Cup cycle, and seven coaches were in preparation for the 2008 Summer Olympics in Beijing.

3.3.2 Procedure

Coaches were contacted via email and invited to participate in the study. Participants were assured that their comments would remain anonymous and that data would be treated confidentially. Convenient times and locations for the interviews were agreed and information packs providing details of the procedures, an informed consent form, and contact details for the principal investigator were distributed to the coaches. Pilot interviews were conducted with three coaches (2 male, 1 female) from three sports (swimming, field hockey, and basketball) and enabled the principal investigator to ensure the clarity of the interview structure and the questions asked. An experienced qualitative researcher reviewed the audio tapes and transcripts, and provided feedback on the pilot interviews. As a result, several minor changes were made to the interview guide to enhance the clarity of the questions. All interviews were face-to-face and were conducted by the principal investigator who was trained in qualitative research methods and had experience of previous interview-based research. In addition, the interviewer had over 10 years of coaching experience, including 4 years coaching at national league level. This experience helped the interviewer to build rapport with participants and to create a comfortable environment for the interview process.

3.3.3 Interview guide

Based on the existing stress literature, a semi-structured interview guide³ was used to ensure all participants were asked the same set of major questions (Gould, Jackson, et al., 1993). Nevertheless, as participants were encouraged to elaborate, the interviewer also explored issues unique to each coach's experiences in greater depth as they arose (Patton, 2002). The interview schedule was divided into three parts. Following introductory questions designed to facilitate recall and encourage descriptive talking (Patton, 2002), coaches were asked to identify what it was about their jobs that they found stressful and were reminded to consider their coaching experiences at world class level during discussions. Probes were used to elicit in depth information regarding stressors (e.g., Why is that a particular source of stress for you?; Tell me about stress that might be related to other aspects of your job), and, once coaches had finished describing the stressors they had experienced, one final general probe was used to ensure all stressors had been identified. In the final section, coaches were given the opportunity to reflect on the interview experience and to discuss any other relevant issues. None of the coaches felt there were any further issues to be discussed. After the interview, coaches were sent a summary of the interview transcript which identified the major themes they had mentioned. As a result, one coach wished to clarify the meaning of two of the themes they had discussed.

3.3.4 Data analysis

Interviews lasted approximately 60 minutes and each interview was tape recorded and transcribed verbatim by the primary investigator⁴. Transcripts of each interview were read and re-read to enhance familiarity and then content analysed by

³ See Appendix B for a copy of the interview guide used in studies one and two.

⁴ See Appendix C for an example transcript.

three researchers using procedures recommended by Miles and Huberman (1994) and used extensively within sport psychology research (e.g., Scanlan, Stein, & Ravizza, 1989). To ensure credible data, two researchers individually coded raw data themes (i.e., quotes or paraphrased quotes representing a stressor) characterising each coach's responses to the interview questions (Côté, Salmela, Baria, & Russel, 1993). Once raw data responses had been coded, the analysis moved inductively from the specific (raw data themes) to general lower- and higher-order themes. Coach responses generated a total of 130 raw data responses that were then organised into groups of like responses. Common themes of greater generality were identified, resulting in the emergence of lower- and higher-order themes. For example, raw data responses such as "not having the time to work with talent", "managing a group with individual wants and needs", and "keeping things fresh for the athletes on a day to day basis", were grouped to create the lower-order theme; "meeting athletes' training needs".

The two researchers reached consensus via extensive discussion over a 4-week period. If there were disagreements between the researchers, transcripts were re-read and further discussion followed until consensus was reached (Sparkes, 1998). During these discussions, particular credence was given to the views of the principal researcher who conducted the interviews and listened to the audio tapes. Triangular consensus was reached at each stage of analysis with a third researcher providing a reliability check. Specifically, a third researcher was given a random selection of raw data responses (30%) and asked to categorise them into their lower- and higher-order themes. This researcher correctly categorised 92% of the quotes into their lower-order themes and 94% into their higher-order themes. The research team held further meetings until consensus had been reached on all themes.

3.4 Results

In accordance with previous research (e.g., Giacobbi et al., 2004), raw data responses are presented in Figure 3.1, with the number of coaches reporting each raw data response in parentheses. The numbers of coaches cited in each lower- and higher-order theme are also included. Findings are presented using thick descriptive quotes⁵ (McKenna & Mutrie, 2003) to allow the reader to gain a feel for the context of the data. The raw data responses were identified and organised into 16 lower-order themes. These were then organised into the following ten higher-order themes representing elite sports coaches' stressors: conflict, pressure and expectation, managing the competitive environment, athlete concerns, coaching responsibilities to the athlete, consequences of the sport status, competition preparation, organisational management, sacrificing personal time, and isolation. The higher- and lower-order themes are discussed below.

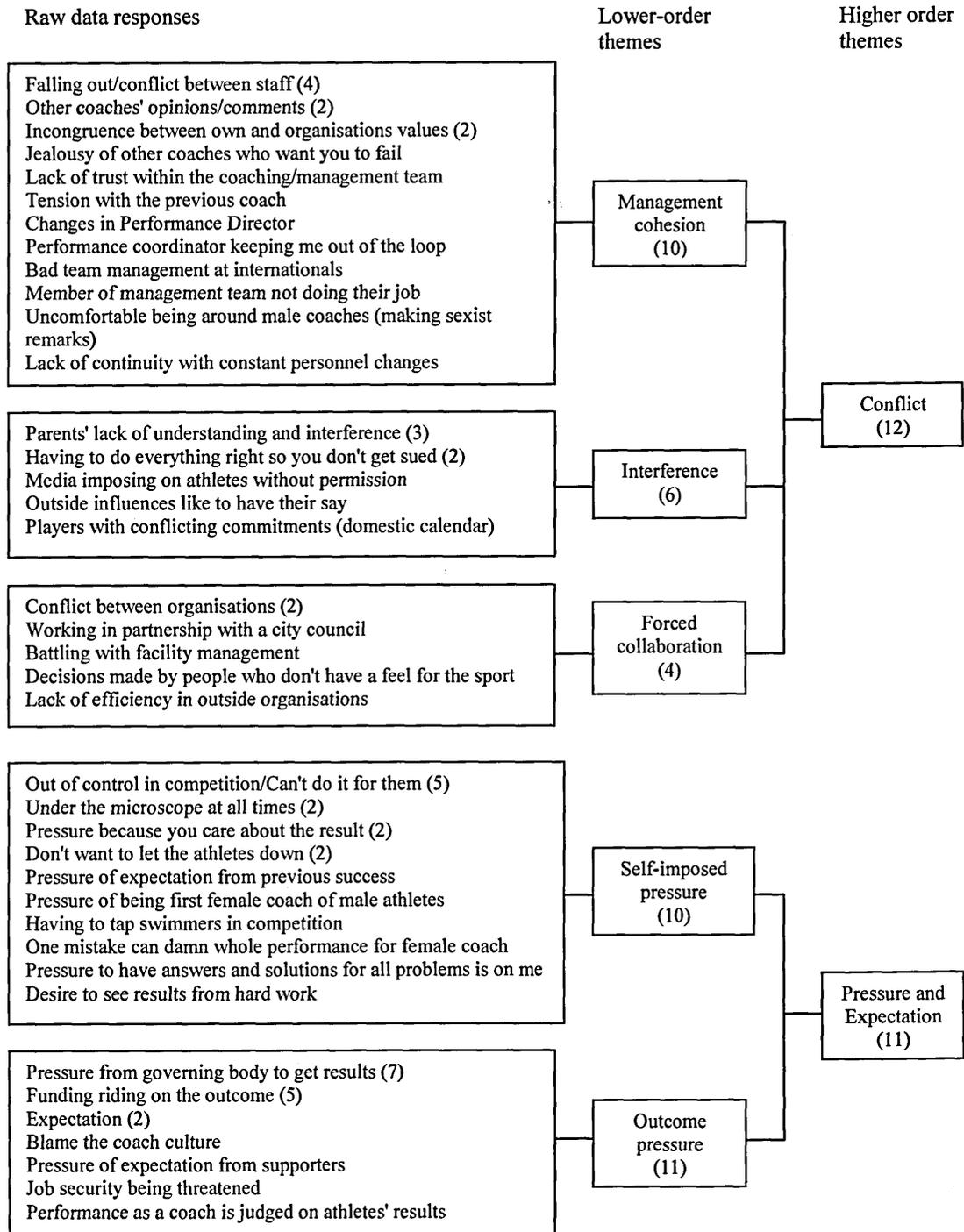
3.4.1 Conflict

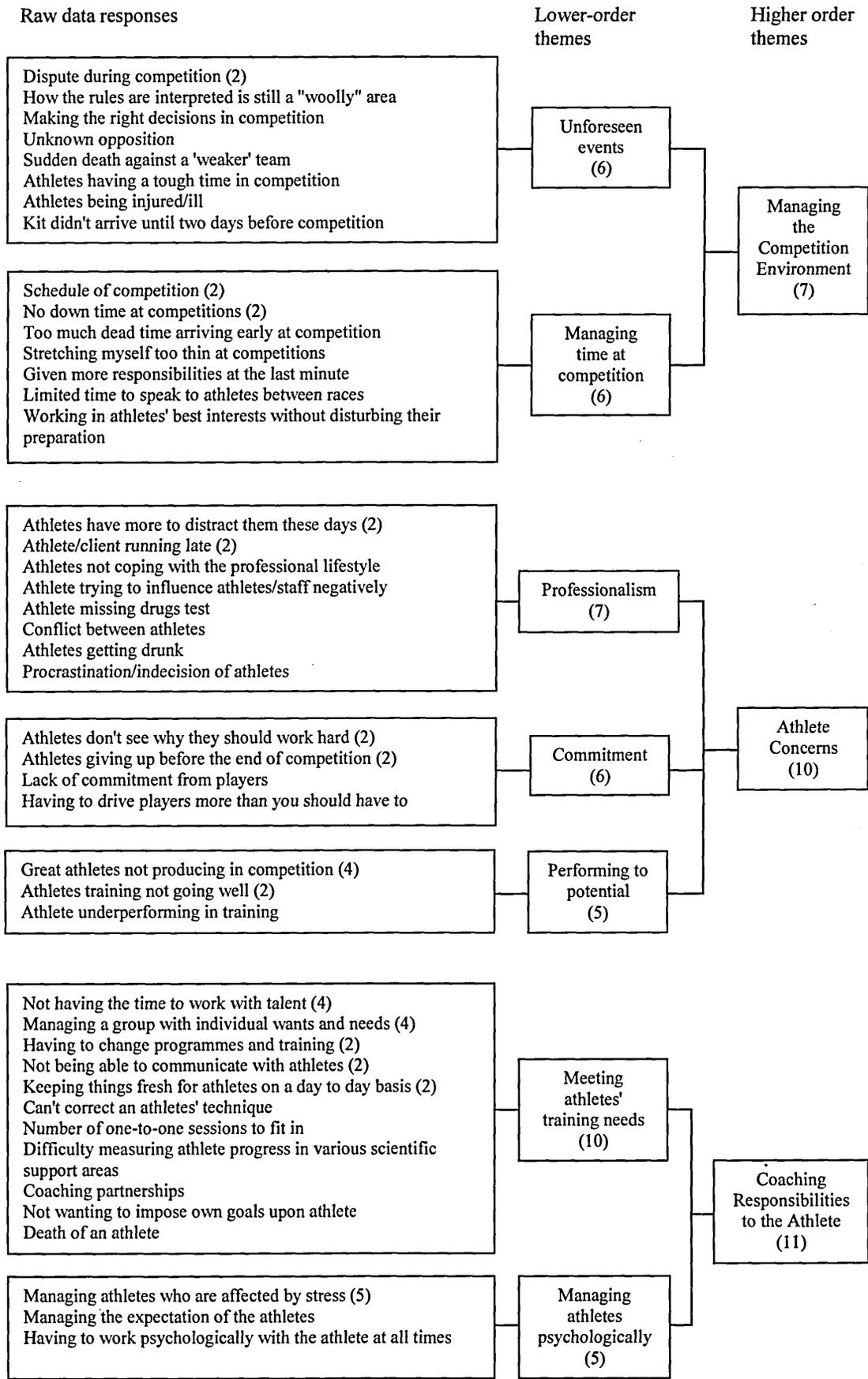
This higher-order theme contained responses from all 12 coaches indicating that conflicts within the sport organisation were stressors. Specifically, 22 raw data responses were organised into three lower-order themes labelled management cohesion, interference and forced collaboration.

3.4.1.1 Management cohesion

This lower-order theme contained responses from 10 coaches suggesting that a lack of cohesion within the team or organisation was a stressor. Conflict between staff, a lack of trust within the team, tensions with the previous coach, and the perception that other staff actually wanted them to fail were all examples of conflicts within the organisation that coaches identified as stressors.

⁵ Sports omitted to protect anonymity of participants.





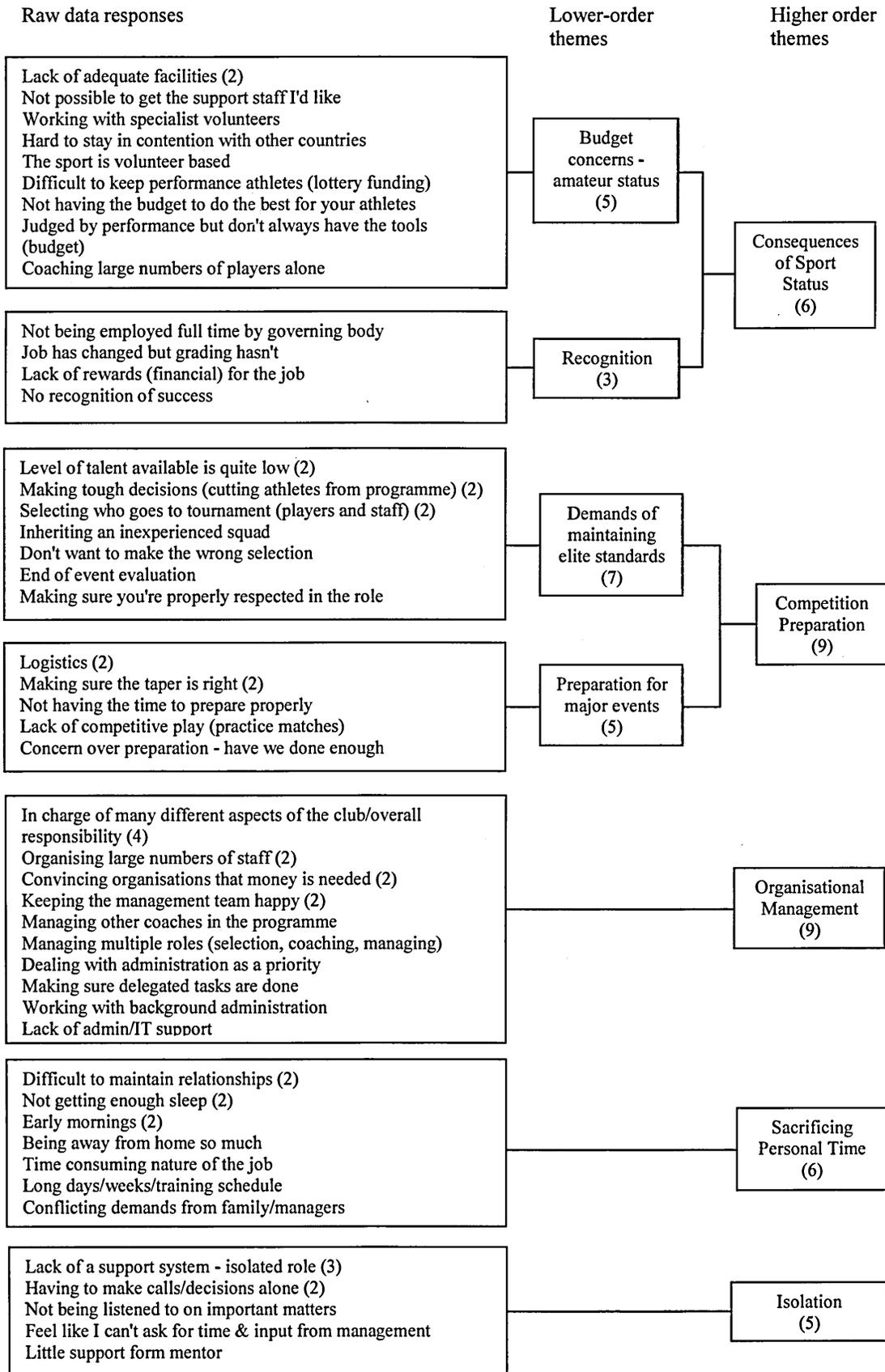


Figure 3.1 Stressors identified by world class, UK sports coaches

In addition, two coaches perceived an incongruence between their own coaching philosophies and the values of the organisation, or the philosophy of the performance director. As one coach highlighted,

Sometimes, as a coach you're trying to be consistent and stick to your coaching philosophy and sometimes you get people trying to impose a different coaching philosophy. And that can be stressful because obviously if you really believe in it you're gonna kick against it.

3.4.1.2 Interference

This lower-order theme contained responses from six of the 12 coaches and referred to them having to deal with outside influences that impinged upon their coaching roles and responsibilities. For example, representatives from the media imposing on athletes without the coach's permission and the need to be constantly mindful of certain rules and regulations to avoid legal action were stressors for coaches. Three coaches also commented on how parents' interference and lack of understanding was a stressor for them. As one coach explained, "parents can be very stressful, especially to a young coach... sometimes they can interfere to such a degree that they're actually hindering the kid or the athlete, so parents are difficult, no question about that."

3.4.1.3 Forced collaborations

Four coaches discussed the demands of being forced to collaborate with other organisations as a stressor. For example, working in partnership with a city council and the constant struggle over issues such as health and safety or adequate facility time were two stressors mentioned by coaches. One coach described how a lack of efficiency from partnership organisations was also a stressor:

When people are inefficient and take a long time to do things, when they look at it and say "yes you can have that back in 3 days time", and I say "why can't you just sign and stamp it now?" That's not the way the system works... inefficiency and bureaucracy would get me going if you want to wind me up.

3.4.2 Pressure and expectation

The second higher-order theme encompassed raw data responses from 11 of the 12 coaches and described the pressure and expectations placed upon them by themselves and others. Seventeen raw data responses were organised into two lower-order themes: self-imposed pressure and outcome pressure.

3.4.2.1 Self-imposed pressure

In this lower-order theme, ten coaches discussed the pressures and demands they placed upon themselves as stressors. Specifically, coaches felt that "being under the microscope at all times", "not wanting to let the athletes down", and "caring about the result" were all demands that resulted in strain. Coaches also discussed the pressure they felt when they "couldn't 'do it for [the athlete]" during competitions. As one coach described, "to stand on the sideline, watching them go round the competition, that's stressful, because you can't do anything about it and you just wish and hope that everything goes well."

3.4.2.2 Outcome pressures

This lower-order theme contained responses from 11 coaches who identified that pressure from outside sources to achieve results was another stressor. Coaches most often referred to the pressure placed upon them by their governing bodies to get results and the fact that funding was reliant on the outcome of competitions.

3.4.3 Managing the competition environment

Seven of the 12 coaches interviewed discussed how managing their time and their athletes during competitions were particular stressors for them. This higher-order theme comprised 15 raw data responses categorised into two lower-order themes: unforeseen events and managing time at competition.

3.4.3.1 Unforeseen events

In this lower-order theme six coaches explained that disputes with officials and unclear rules in competition were stressors for them. Facing unknown opposition and the stress of decision making during competition were also stressors discussed by coaches, as evidenced in the following quote:

I think sometimes when I went to [country], particularly when I didn't know all the groups and we got there and I was thinking "I don't know whether we were going to be beaten 20-0 or beat them 10-8, I have no idea where we are". And that's quite stressful.

3.4.3.2 Managing time at competition

Within this lower-order theme containing responses from six coaches, "having no down time" at competitions was reported as a stressor. Two coaches also discussed the schedule of competition as a major stressor for them. As one coach explained:

Unlike Rugby and Football who have two weeks in between to prepare for the next match, we prepare every single evening, so if we have a four o'clock game one day, we might have a 10 o'clock game the next. ...as a coach, you have to be preparing three or four matches ahead, so that when you get to it, you still have your ideas there and you can clarify them in your mind for the players.

3.4.4 Athlete concerns

This higher-order theme encapsulated raw data responses referring to behaviours or attitudes of athletes that coaches found stressful. Specifically, responses from ten of the twelve coaches were organised into three lower-order themes: professionalism, commitment, and performing to potential.

3.4.4.1 Professionalism

Responses from seven coaches reflected concerns that athletes' professional attitudes were not as good as they should be and that this was a stressor for them. Two

coaches felt that athletes had more to distract them, taking them away from what coaches felt were important parts of the learning process. As one coach described:

I think they've got more things to distract them and I think that's frustrating from a coaching perspective... instead of thinking about the games and watching the videos, quite often they'll put their music on, they'll have their Nintendo Wii's on. ...and all these little things that just take away a little bit of the time that we feel should be spent thinking and reflecting about [the sport].

3.4.4.2 Commitment

In this lower-order theme, six coaches felt a lack of commitment from their athletes was stressful for them. Two coaches mentioned that their athletes "saw no reason why they should work any harder", and one coach described how it was "frustrating from a coaching perspective that we have to feel that we do have to push [the athletes] quite so hard."

3.4.4.3 Performing to potential

Responses characterising coaches' frustrations at athletes not performing to potential constituted the final lower-order theme within athlete concerns. Specifically, five coaches described the stress they felt when their athletes failed to deliver in competition. As one coach explained, "you've talked through the race, you've told them what they need to do, they know what they need to do and then they don't perform like they should."

3.4.5 Coaching responsibilities to athletes

Eleven of the twelve coaches felt that the responsibilities they had towards their athletes were stressful for them. Specifically, 14 raw data responses were organised into two lower-order themes: meeting athletes' training needs and managing athletes psychologically.

3.4.5.1 Meeting athletes' training needs

Ten coaches described demands associated with having to meet athletes' training needs. Several mentioned that not having the time to work with talent during training phases was stressful for them and four coaches discussed the demands of managing a large group of athletes. As one coach explained,

You're not just managing yourself, you're managing a group of individual players, all with different wants and needs, egos... but you've got to be fair to each and every one of them, you know? And if you do one small thing more for one player than another player, it's all hell let loose.

Two coaches highlighted communication problems with athletes as being stressful while one coach found that not being able to correct his athlete's technique, even though the problem was identifiable, was a particular stressor for him. One coach also discussed the tragic death of an athlete during training. Obviously this was a particularly stressful incident for the coach involved but the rest of the squad who witnessed the event were also deeply affected. Although considered an extremely rare accident, managing the needs of the athletes under these difficult circumstances was a major stressor for this coach.

3.4.5.2 Managing athletes psychologically

The lower-order theme consisted of responses indicating that coaches found it stressful having to work with athletes psychologically at all times. Five coaches indicated that managing athletes who were themselves affected by stress as competition approached was a cause of stress, as evidenced in the following quote:

As [competitions] get closer, [the athletes] are under tremendous stress as well. ...they [don't] act the same and they don't behave the same as they would normally, you know? So stress affects them in a very negative way quite often and you're trying to manage that situation as well. So it's just more difficult all round.

3.4.6 Consequences of the sport's status

Thirteen raw data responses reflected stressors that were considered to be consequences of the minority or amateur status of the sport. Specifically, within this higher-order theme, responses from six coaches suggested that budget concerns and lack of recognition were two factors contributing to their stress.

3.4.6.1 Budget concerns/amateur status

Five coaches identified stressors associated with the lack of a sufficient budget, including not being able to get the right support staff and a lack of adequate facilities. One coach explained that because of a smaller budget and the amateur status of their sport, it was hard to stay in contention with other countries, even though the level of expectation to perform was still high. Another coach suggested that a limited budget only allowed specialist support staff to be employed on a voluntary basis and that was a stressor because the coach felt unable to place demands and deadlines on these volunteer staff members.

3.4.6.2 Recognition

Three coaches perceived that a lack of recognition was a consequence of their sport's minority status. Specifically, one coach discussed the lack of financial rewards for what they considered to be a time consuming and stressful job, while another coach felt that the lack of recognition for their successes as a coach was another stressor.

3.4.7 Competition preparation

In this higher-order theme, coaches explained how preparing for any major competition contributed to their stress. Specifically, nine coaches discussed how the demands of maintaining elite standards and preparation for major events were stressors for them, as reflected in the following lower-order themes.

3.4.7.1 Demands of maintaining elite standards

In this lower-order theme, coaches felt that there were several demands associated with maintaining a high standard of training and performance that were stressful. For example, being expected to compete at an international standard with an inexperienced squad was a stressor for one coach. Selection issues and having to cut athletes from athletic programmes to maintain high standards were also cited as stressors, as one coach described:

That was a really tough time but it was something we had to do, we had to do it for the sake of the player and we had to do it for the sake of the group... and obviously a lot of things are said and a lot of people involved... So that's extremely stressful for that player and for us as well.

3.4.7.2 Preparation for major events

Coaches also felt that the preparation phase for major events placed significant demands on them. Two coaches mentioned being responsible for hotel, travel, and accommodation arrangements for support staff and athletes was a stressor, while other coaches referred to preparing the athletes. For example, "making sure the taper is right", "lack of time for adequate preparation", and "lack of competitive practice matches" were all stressors mentioned by coaches.

3.4.8 Organisational management

In this higher-order theme, raw data responses from nine of the 12 coaches interviewed reflected issues associated with the management of other people and outside organisations. Four coaches cited having overall responsibility for all aspects of the team as being a significant demand for them. Four coaches also described how the need to prioritise administrative duties was stressful in that it took them away from what they felt was more important (i.e., coaching and working with their athletes). Managing

other coaches within the programme and managing multiple roles within the coaching job (e.g., selector, manager, coach), were also cited as stressors.

3.4.9 Sacrificing personal time

Six coaches interviewed felt that the time consuming nature of the job, early mornings, and long days and weeks were stressors for them. One coach described how the unrelenting training and competition schedule was a cause of stress and had an effect on personal relationships, which was itself cited as a stressor by other coaches:

I get up at 5 in the morning, I coach 6 'til 8 in the morning and then I coach 5 'til 8 in the evening every day. On top of that I coach 3 land sessions before the evening sessions... and then I'm probably away at competitions at least 25 weekends a year. The divorce rate in [names sport] coaches is massive.

Another coach felt that having to sacrifice time with his family was a stressor and described how the conflicting demands between work and family life caused stress:

I've got a young family and quite a demanding [spouse]... [they] want me to see the kids more and all the rest of it. And then you've got the managers here saying we want you to do more days with the athletes, so I'm just trying to keep the two balls in the air at the moment and that's a stressor for me. I can't keep everyone happy, it's impossible.

3.4.10 Isolation

The final higher-order theme that emerged from the interview data consisted of five raw data responses in which five coaches described how the often isolated nature of their coaching role was a stressor. One coach described how not being listened to on important matters was stressful for him, while another felt that he couldn't ask for time and input from management. Three coaches cited the lack of a support system as contributing to their experience of stress while one coach explained their isolation in the following quote: "I mean it is a solitary role, there is nobody to go to, nobody to talk to."

3.5 Discussion

This study extends previous research by exploring coaches' experiences of stress within the organisational culture of world class sport. As the first of two studies exploring coaches' experiences of stress, the present investigation facilitates a deeper understanding of coaches' stress experiences within a transactional framework of stress by focusing on identifying the stressors in elite coaching in the UK. In support of existing literature describing the stressful nature of sports coaching, the findings of the present study indicate that world class sports coaches experience a diverse range of stressors, demonstrated through the ten higher-order themes that emerged (conflict, pressure and expectation, managing the competition environment, athlete concerns, coaching responsibilities to the athlete, consequences of the sport status, competition preparation, organisational management, sacrificing personal time, and isolation).

Although the literature on athlete stress suggests coaches are a stressor for athletes (e.g., Giacobbi et al., 2004; Gould, Jackson, et al., 1993), the findings of the present study appear to support Frey's (2007) assertion that the coach-athlete relationship is, in fact, mutually stressful, with coaches highlighting the athletes in the squad as stressors for them. Specifically, two higher-order themes emerged demonstrating that coaches' concerns about their athletes and their responsibilities to their athletes were stressors. Indeed, coaches reported several athlete behaviours that they considered as stressors (e.g., lack of commitment and motivation, running late, and underperforming in training). Coaches also reported that managing athletes' psychological needs (e.g., dealing with athletes who are themselves under stress) was a significant demand. When the findings of the present study are examined alongside previous literature, it is apparent that both coaches and athletes find the partnership stressful. Little research, however, has examined athletes' and coaches' perceived needs

in relation to one another in a high performance environment. Consequently, future research might explore further the dynamic relationship between athlete and coach at the world class level, with particular emphasis on developing or enhancing the quality of communication.

Woodman and Hardy (2001) suggested that a limitation of early stress research was its failure to identify the origins of stressors. Indeed, the findings of the present study provide support for Hanton et al.'s (2005) assertion that a combination of organisational and competitive stressors should be considered in stress research. In the present study, one theme that could be considered organisational in nature was conflict. However, rather than conflict with athletes, this theme contained stressors such as a lack of trust in the management team, tensions with the previous coach, and key decisions being made by people 'outside' the sport. The findings therefore provide further support for previous research extolling the consideration of organisational influences on stress in sport settings (Hanton et al., 2005; Woodman & Hardy, 2001) as well as for the suggestion that sport psychology practitioners should have a wider range of skills that will enable them to effectively deal with the range of concerns that spans beyond the athletic arena (Fletcher & Hanton, 2003; Jones, 2002; Woodman & Hardy, 2001). Indeed, a lack of cohesion within the sporting organisation emerged as a specific stressor for coaches. The lack of trust, lack of cohesion, and atmosphere of tension in the organisation reported by elite coaches certainly suggests that lines of communication within sport organisations might be improved. Along these lines, five of the 12 coaches interviewed indicated that they felt some stress as the result of being in an isolated role and it could be that this lack of cohesion within the team is a contributing factor to coaches' feelings of isolation.

Although Bowes and Jones (2006) suggested that coach education programs should present coaching as a complex, interactive process' (p.237), the content of coach education programs is often directed towards promoting athletic achievement. Such programs usually contain modules aimed at developing coaches' abilities to communicate effectively with athletes (Cushion, Armour, & Jones, 2003) but have also been reported to leave coaches 'ill-equipped to deal with the multidisciplinary, unique, uncertain social demands of their work' (Jones, 2000, p.34). Thus, it is possible that helping coaches develop the communication skills that will enable them to work as part of a wider organisational team would also seem prudent. One method currently in the literature that can be used to enhance communication is performance profiling. Dale and Wrisberg (1996) advocated the use of performance profiling in a team setting suggesting that the process 'can be an effective method of creating a more open atmosphere for communication among members of a team as well as between the coach and his/her athletes' (p.275). While profiling in this instance was aimed at increasing the quality of communication between athletes, the process might also be undertaken with a team of coaches and support/managerial staff. The findings of the present study not only suggest that coach-athlete communication might be improved at the world class standard, but that communication between coaches, managers, performance directors, and support staff might also be enhanced.

Another theme to emerge in the present study related to organisational issues was organisational management. Specifically, this theme appeared to capture stressors related to issues of role conflict. Previous coaching stress research has generally reported that role conflict is a major source of strain for coaches (e.g., Capel et al., 1987). Indeed, several coaches in the present study felt that managing multiple roles (e.g., coach, chief selector, manager) and having ultimate control over several different

aspects of the team or organisation was a cause of strain. One possible explanation could, in part, be related to coaches' feelings of isolation within the role. Nevertheless, it is still an important finding given that role conflict has been shown to be a significant predictor of burnout among coaching populations (Capel et al., 1987). Although "other coaches" are still cited as one of the most important aspects in the development of coaches (Cushion et al., 2003), one coach in the present study reported that they received little support from their mentor, while another specifically stated,

There's nothing there to back up the coaches when the coaches need someone to talk to and say "this is how I'm feeling, how can I cope with that, how can I deal with my athlete?" We're never given that option. I think sometimes, the coaches are forgotten.

For the coaches in the present study, although mentoring systems might be in place, periodic review of their effectiveness is one suggestion that might improve such systems and alleviate coaches' feelings of isolation within the role.

Coaches reported feelings of isolation and a lack of support are particularly important findings given that coaches also described a number of stressors related to the pressure and expectations they experienced in their roles. Specifically, coaches reported placing a great deal of pressure upon themselves and that this pressure was a stressor for them. Further, coaches also discussed the pressure placed upon them by their governing bodies to produce successful athletes. Indeed, coaches reported feeling the pressure to produce results, often with their own employment and the funding for their sport programs under threat. At the same time however, coaches discussed limited resources or support as a hindrance to their achievement of those results. Sport organisations should take particular note of these findings and ought to consider taking steps to ensure that continued support is available for their coaches, particularly given the relationship between stress and burnout (Smith, 1986). Although it has been proposed within

coaching literature that low commitment and feelings of entrapment are related to higher levels of emotional exhaustion (Raedeke, Granzky, & Warren, 2000), findings from occupational stress literature still hold that burnout is a result of exposure to chronic stress, excessive job demands, or an imbalance between job demands and expectations (e.g., Cherniss, 1980; Shcaufeli & Buunk, 2003). Because burnout is more likely in highly motivated individuals with high goals and expectations (Pines, 1993), coaches operating in world class sporting environments might be particularly vulnerable. Further, it is clear from the variation of stressors reported that the coach does indeed operate in a broad context (i.e., in and outside the athletic setting). From an applied perspective, sport psychology practitioners should be aware of the effect of stressors associated with, for example, family life and being out of the country for long periods.

Stressors associated with the competitive environment, such as disputes during competition, making tough decisions during competition, and managing time at competitions were all identified in the present study. In a recent study, coaches displayed use of psychological skills across a variety of competition and training situations, and for a variety of purposes. However, few coaches were found to use relaxation techniques, and for fewer purposes (Thelwell et al., 2008a). In addition, coaches realise their behaviour changes due to stress might negatively influence their athletes (Gould, Guinan, et al., 2002), and athletes also report these changes in coach behaviour as stressors for them (e.g., Gould et al., 1999). Taken together, along with the findings of the present study, it would appear important to equip coaches, rather than just athletes, with the necessary psychological skills to manage the competitive environment. Because coaches are performers too, more formal psychological skills training and the development of mental toughness might help them cope more effectively with the demands of coaching at world class level.

Although not a specific aim of this study, it is well documented that men's and women's perceptions of stress in the workplace can differ (Antoniou et al., 2006; Fontinatos-Ventouratos & Cooper, 2005; Thompson et al., 2006). Further, factors such as unequal assumption of competence, homophobia, lack of mentors, differentiated hiring standards, and the need to balance home and work life have been identified as some of the barriers to professional development that male coaches do not have to face (Knoppers, 1994; Kilty, 2006). Further, in the development of the CIS, Kelley & Baghurst (2009) found that female collegiate-level coaches were higher on the coaching issues of Time-Role and Athlete-Concerns, Perceived Stress, and the Emotional Exhaustion dimension of burnout. In the present study however, several of the male coaches did report that balancing the conflicting demands of work and family were stressors for them. Future research might further explore these gender differences in the perception of stressors and in the overall experience of stress in world class coaching environments.

3.5.1 Strengths and Limitations

The present study extended previous literature by uncovering a wide range of stressors experienced by UK coaches working in a world class coaching environment. Further, the use of in-depth interviews as a method of data collection allowed a detailed exploration of the stressors experienced by this group of internationally experienced coaches and provides a base from which to explore further the coaches' overall experiences of stress.

Although it was considered a strength of the study that coaches from a wide range of sport types were included, it was also a possible limiting factor in the transferability of the findings to other sport settings because the results suggest that stressors might be influenced by organisational factors. Specifically, although all

coaches had experience of coaching at the international level, there was some disparity between the relative statuses of the sports. For example, while some coaches worked within sports that enjoyed an almost professional status, other coaches, who were expected to produce similar results in terms of medal success, were working in organisations where support and funding from governing bodies appeared to be limited. Stressors associated with the organisational structure and climate might have therefore been associated with a very particular organisational structure and climate. Future research should carefully consider the sport background to provide some context to the findings. In addition, it is possible that the timing of the data collection (i.e., the cycle of competition the coach was in at the time of interview) might have influenced the stressors that were reported. Therefore, future research ought to consider coaching stress in reference to a specific cycle of world class competition.

3.6 Conclusions

The purpose of the present study was to gain an in-depth understanding of the stressors experienced by world class sports coaches. Findings indicated that coaches experienced a broad range of stressors, with organisational and competitive origins, during their careers. The implications of these findings are discussed further in Chapter VII, but they are particularly important given that coaches are performers in their own right and their performance directly influences the athletes who they coach (Gould et al., 1999). Sport organisations should continue to be aware of the demands that world class coaches face as the first step in working towards providing appropriate levels of support for their coaches.

It should also be remembered that the stressors described in this study are often experienced in combination rather than as distinct demands placed on a coach. For example, athletes not producing in competition, the coach not being in control, and

pressure and expectation from supporters might all be experienced simultaneously under a backdrop of poor team management and conflict between staff. From a transactional stress perspective these demands are part of a dynamic stress process and the responses to such a combination of stressors and the coping efforts of coaches are likely to be complex. For example, research has demonstrated that experiencing a particular stressor can have a motivational effect (e.g., Frey, 2007). Future research is therefore needed to explore coaches' responses to stressors and the consequences of stress for them and those around them. The ways in which world class coaches manage their stress also warrant further investigation.

CHAPTER IV

Study Two

Stress & Coping: Exploring Responses and Effects of Stress, and Coping Strategies of Elite Coaches¹

4.1 Introduction

The study described in the previous chapter (Olusoga et al., 2009) identified a wide range of demands (i.e., stressors) that coaches encounter in a world class coaching environment. As identified by this first study, the stressors described by coaches can often be experienced in combination rather than as separate demands that occur one at a time. For example, athletes underperforming in competition, a lack of coach control, and pressure from a governing body to produce results, might all be experienced simultaneously against a backdrop of poor team management and conflict between staff. From a transactional stress perspective (Lazarus & Launier, 1978), these demands are part of a dynamic and complex stress process. Stress responses (i.e., strain) result from a perceived imbalance between environmental demands and an individual's coping resources and, as such, the responses to a combination of stressors, and the coping efforts of coaches, are likely to be complex. Indeed, coping is defined as "*constantly changing* cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p.141), thus further demonstrating the inherent complexity of the stress process (Fletcher et al., 2006).

¹ The study reported in this chapter has been published in a peer reviewed journal: Olusoga, Butt, Maynard, & Hays (2010). Stress in elite sports coaching: Identifying stressors. *Journal of Applied Sport Psychology*, 22, 274-293.

According to UK Sport, coaching is a critical element of the high performance system and plays a central role in ensuring the ongoing success of athletes. In 2004, UK Sport began investing £1million per year into an Elite Coach program with the aim of producing 60 elite British coaches by 2012. This substantial investment highlights the importance attached to producing and developing world class coaches in the United Kingdom. This growing importance afforded to coaching is reflected in an increase in the amount of sport psychology research dedicated to the topic (e.g., Erickson et al., 2007; Frey, 2007; Levy et al., 2009; Olusoga et al., 2009; Thelwell et al., 2008a, 2008b). For example, the importance of the relationship between coach and athlete has been commented upon by a number of authors (e.g., Baker et al., 2003; Lyle, 1999), and coaches have been identified as having a significant impact on athletes' satisfaction and performance accomplishments (Jowett & Cockerill, 2003). While it is clear coaches have not been entirely ignored from a research perspective, it is only relatively recently that they have been considered performers in their own right (cf., Gould, Guinan et al., 2002). Olusoga et al. (2009) and Thelwell et al. (2008b) have both explored the stressors experienced by elite coaches in the UK. Although similar stressors relating to athletes (e.g., coachability, professionalism) and coaches (competition preparation), as well as organisational issues (e.g., conflict, administration) were reported in both studies, there is still a need to further understand the impact of stressors. However, while elite athletes' experiences of stress continue to receive significant research attention (e.g., Kristiansen & Roberts, 2009, McKay et al., 2008; Mellalieu et al., 2009; Weston et al., 2009), studies of coaching stress have only recently become more prolific.

To date, research that has investigated coaches' responses to stress has provided some insight into the relationships between stress and coaches' health, and this line of research has typically concentrated on burnout (see Goodger et al., 2007, for a review). For example, it has been well documented that burnout, "a syndrome of emotional

exhaustion, depersonalisation, and reduced personal accomplishment" (Maslach & Jackson 1986, p.1), is a possible response to chronic stress or a persistent imbalance between demands and coping resources (Smith, 1986). While sociological (Coakley, 1992) and commitment-based (Schmidt & Stein, 1991) explanations for burnout have been posited, Smith's stress-based explanation was central to studies of coach burnout (e.g., Kelley, 1994; Kelley & Gill, 1993). Indeed, Kelley and Gill found support for Smith's cognitive-affective model of stress, with their results indicating that perceived stress was positively related to burnout. While the research into stress responses, and indeed the impact of stress, has primarily focused on burnout, other, more immediate stress responses have been under researched. Further, coaches have reported several positive responses and effects of stress, including heightened awareness, energising effects, and increased motivation (Frey, 2007). Taken together, these findings, and those of previous research, suggest that coaches' responses to stressors can certainly vary and, thus, require greater research attention.

While it is important to note that individuals can respond to stressors in a positive manner, negative responses are reported more often (cf., Frey, 2007). In a study of collegiate coaches in the United States, Frey reported that several factors, such as wanting more free time, consistent losing, and interference with family life, might result in them being more likely to withdraw from the profession altogether. Moreover, coaches felt that their moods, emotions, thoughts, and behaviours could be negatively affected by stressors, and that these responses to stressors could have a negative impact upon their athletes. McCann (1997) suggested that it was easy for athletes to recognise when their coaches were experiencing strain, and that this might have a detrimental influence on athletes' confidence. Based on the extant literature, it is clear that stressors can have a negative impact, not only on the coaches encountering them but also, indirectly, on their athletes. Nicholls and Polman (2007) suggested that performers

must be able to cope with stressors to perform well and "to make sport a satisfying experience" (p.11). Although referring to athletes, this observation certainly applies to coaches too, yet as identified by Frey (2007), the ways in which coaches manage stress is still relatively unknown.

In studies with athlete populations, an inability to effectively cope with stressors has been linked to reduced quality of performance (Lazarus, 2000a) and withdrawal from sport (Smith, 1986), and there is no reason to suggest that the same outcomes would not extend to coaching populations. It is therefore increasingly important to develop our understanding of coaches' coping strategies. To address this, Levy et al. (2009), conducted a longitudinal study examining organisational stressors, coping strategies, and coping effectiveness with an elite coach. Administration (18.9% of all stressors reported), overload (12.9%) and athletes (8.6%) were the most frequent stressors cited and diary entries revealed 70 coping strategies used over a 28 day period. While this study attempted to explore the coach's perceptions of coping effectiveness, the ways in which the coach responded to stressors and the perceived effects of stress, were not explored. In a recent qualitative investigation, Thelwell et al. (2008a) explored the use of psychological skills in 13 elite-level coaches from the UK, finding that coaches employed goal-setting, imagery, self-talk, and relaxation skills across a range of situations. While Thelwell et al. demonstrated that world class coaches appear to use a variety of psychological skills, albeit in a somewhat limited fashion, the specific strategies used to cope with the demands of coaching within the unique culture of world class sport still warrant further investigation.

4.2 Study Aims

While stress research has focused on identifying the vast array of stressors encountered by elite performers, little research has explored coaches' responses to stress

and the perceived effects of stress. Instead, studies have tended to highlight the frequency with which various stressors are encountered. While emotional responses such as anxiety and anger are common (Lazarus, 2006), stress responses are not necessarily negative in tone or outcome. To date, although studies have explored the coping strategies of athletes (cf. Nicholls & Polman, 2007), coping research with coaching populations has been less prolific. Frey (2007) explored the coping strategies of collegiate level coaches, and Levy et al. (2009) explored coping and coping effectiveness of one elite coach over a 28-day period. Although the first study in this series identified the stressors encountered by world class coaches, an exploration of coaches' responses to stress, the effects of stress as perceived by these coaches, and the coping strategies they use is vital in developing our understanding of their overall stress experiences. Therefore, the purpose of the present study was twofold; first, to investigate the responses and effects of stress for world class UK sports coaches, and second, to explore the coping strategies used by these coaches attempting to manage stress.

4.3 Method

4.3.1 Participants

With institutional ethics approval², twelve sports coaches (6 men, 6 women) aged between 36 and 64 years (47.3 ± 7.6 years) participated voluntarily in the study. Coaches represented eight sports (diving, sailing, swimming, bowls, equestrianism, field hockey, lacrosse, and table tennis) and had between six and 22 years (14.5 ± 5.5 years) experience coaching at a world class level. Coaches were purposefully selected (Patton, 2002) from a variety of sports to ensure that a wide range of sporting organisations was represented. As part of the selection criteria, coaches were

² Ethics approval for studies one and two was applied for and granted by Sheffield Hallam University, based on the study consisting of "minor procedures" (See Appendix A).

considered world class if they had coached at an Olympic Games, world championships, world cup, and/or Commonwealth games. At the time of interview, seven coaches were in preparation for the 2008 summer Olympics in Beijing, one was in preparation for their world championships, one coach had just returned from a world cup, and two coaches were in the middle of a four year world cup cycle. Due to the constraints associated with accessing a world class coaching sample, the data for the present study, and the study described in the previous chapter (Olusoga et al., 2009) were collected in one interview. However, two themed interview guides delineated the aims of each separate study.

4.3.2 Procedure

Coaches were contacted via email and invited to participate in the study. Participants were assured that their comments would remain anonymous and that the interview data would be treated confidentially. An initial interview guide was pilot tested with three coaches (2 male, 1 female) from three sports (swimming, field hockey, and basketball). This process allowed the principal investigator to ensure that the questions asked were unambiguous and the structure of the interview was clear. Feedback on the pilot interviews was provided by an experienced qualitative researcher who listened to the audio recordings and reviewed the transcripts. Several minor changes were subsequently made to the interview guide to enhance clarity. All interviews were conducted by the principal investigator who had extensive experience with interview-based research. In addition, the interviewer had over ten years of coaching experience which helped in establishing rapport with participants. As the interviewer was an experienced coach, a bracketing interview served to minimise the chance that any biases and preconceptions he may have had regarding coaches' stressful experiences could influence the subsequent interviews and his interpretations of the coaches' comments (Ely, 1991; Patton, 2002).

4.3.3 Interview guide

Based on the existing stress literature (e.g., Frey, 2007; Thelwell et al., 2008b), use of a semi-structured interview guide³ ensured each participant was asked the same set of major questions (Gould, Jackson, et al., 1993). Specifically, following introductory questions designed to facilitate recall and encourage descriptive talking (Patton, 2002), the interview guide focused on four broad categories: responses to stressors (e.g., what would happen when you experienced stress like that?), perceived effects of stress (e.g., what effects did experiencing this stress have on you?), coping strategies (e.g., how did you cope with the stress you experienced?), and positive experiences of stress (e.g., have you ever viewed stress in a positive way?). However, as participants were encouraged to elaborate during the interview, the interviewer allowed the natural flow of conversation to direct the discussion, and was free to explore issues unique to each coach's experiences in greater depth as they arose (Patton, 2002).

4.3.4 Data analysis

Each interview was tape recorded and transcribed verbatim by the first author. As in study one, to ensure data trustworthiness, transcripts of each interview⁴ were content analysed by three researchers, using procedures recommended by Miles and Huberman (1994) and used within sport psychology research by several authors (e.g., Edwards, Hardy, Kingston, & Gould, 2002). Two researchers individually coded raw data themes (i.e., quotes or paraphrased quotes representing a meaningful point or thought) characterising each coach's responses to the interview questions (Côté et al., 1993). The raw data themes were then organised into groups of like responses and common themes of greater generality, resulting in the emergence of lower- and higher-

³ See Appendix B for a copy of the interview guide used in studies one and two.

⁴ See Appendix C for an example transcript.

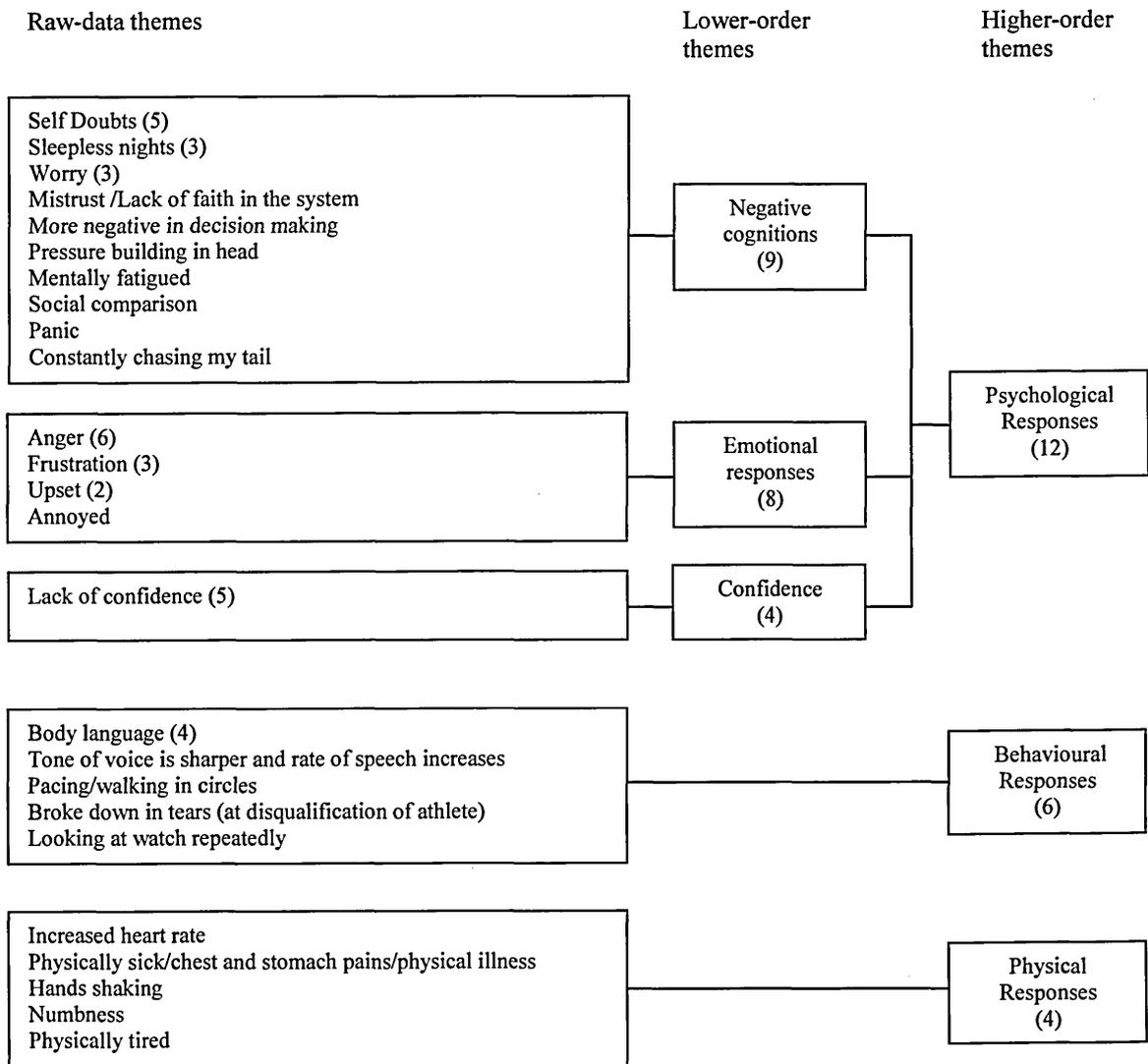
order themes. The two researchers reached consensus through discussion over a 4-week period. Disagreements between the researchers resulted in transcripts being re-read and further discussion taking place until consensus was reached (Sparkes, 1998). Triangular consensus was reached at each stage of analysis. Specifically, a third researcher was given a random selection of raw data responses (30%) and asked to categorise them into their lower- and higher-order themes. This researcher categorised 90% of the quotes into their lower-order themes and 93% into their higher-order themes. Consensus was reached on all themes through further meetings with the research team.

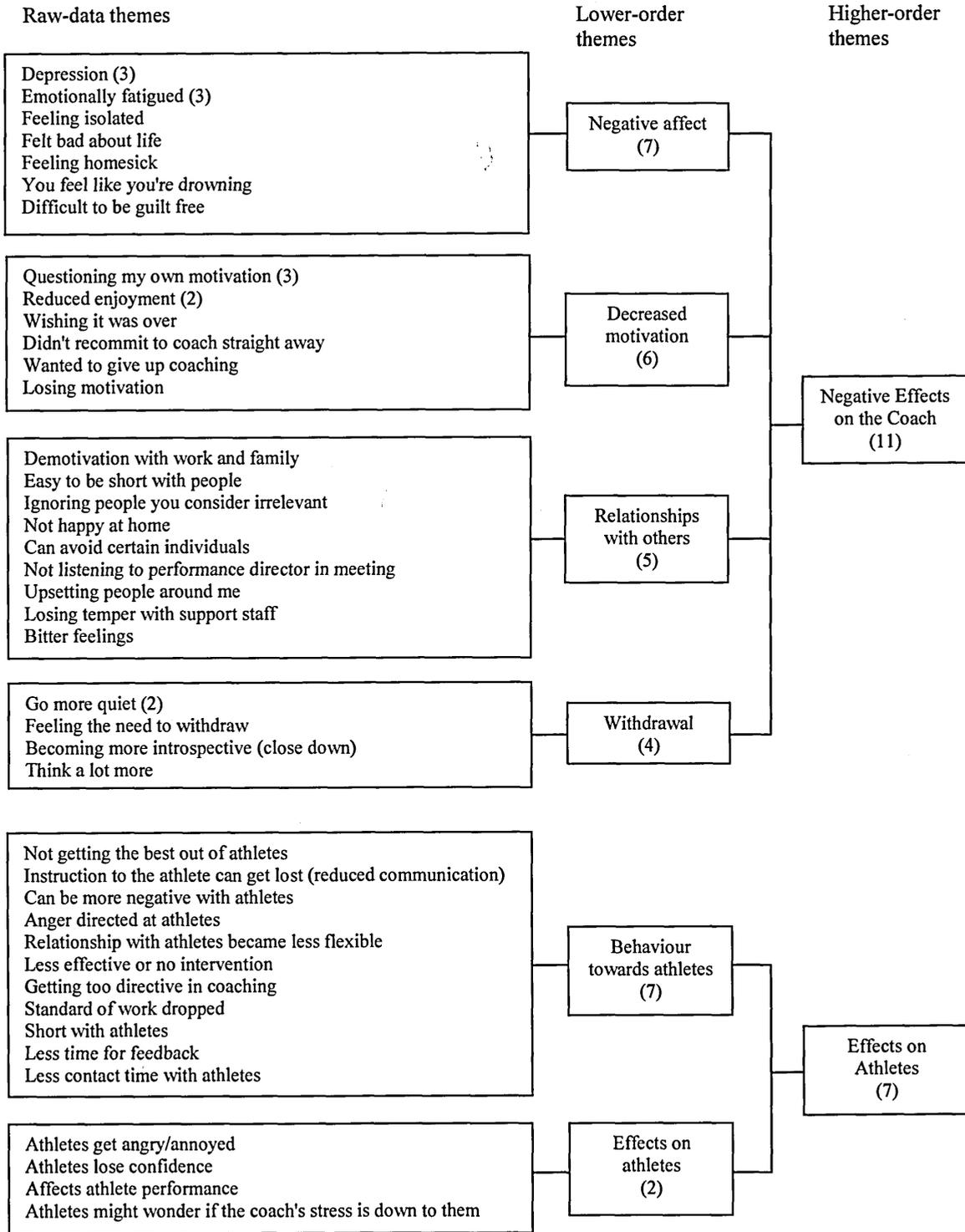
4.4 Results

In the present study, coaches were interviewed regarding their responses to stress and strategies used to cope with the stressors encountered in their world class coaching careers. The results are presented in two sections: The data pertaining to responses and effects of stress is presented first, followed by coaches' coping strategies.

4.4.1. Responses and effects of stress

Seventy-seven raw data responses were identified from the interview transcripts, each representing a distinct response to stress. These were organised into 11 lower-order themes and, subsequently, into the following six higher-order themes: psychological responses, behavioural responses, physical responses, negative effects on the coach, effects on athletes, and positive effects. All raw data responses and themes are presented in Figure 4.1, with the number of coaches reporting each raw data response in parenthesis. In addition, the numbers of coaches cited in each lower- and higher-order theme are also included. Further, to allow the reader to gain an understanding of the context of the data, the findings are also presented using thick descriptive quotes (McKenna & Mutrie, 2003).





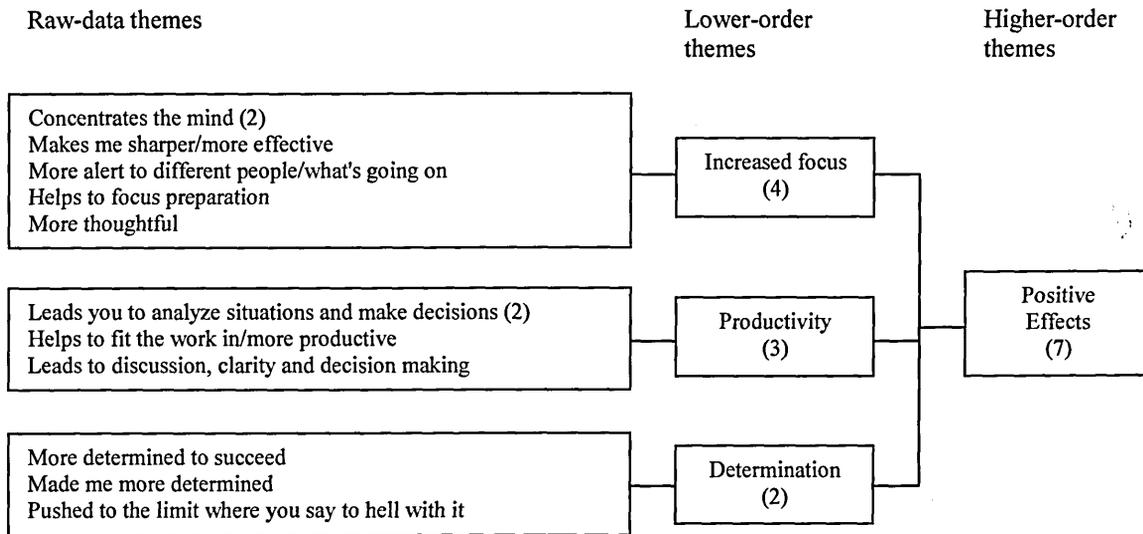


Figure 4.1 Responses and effects of stress reported by world class, UK sports coaches

4.4.1.1 Psychological responses

The largest higher-order theme to emerge from the data encapsulated responses describing coaches' psychological reactions to stressors. This theme contained responses from all 12 coaches and consisted of three lower-order themes: negative cognitions, emotional responses, and confidence.

4.4.1.1.1 Negative cognitions. As well as reporting negative emotional responses to stressors, nine coaches also indicated that they experienced negative cognitions. Several coaches described how they doubted themselves, their ability, and their preparation, because of the stress they were under at the time. One coach said: "I think the more stress you come under, the more insecure you get", while another suggested that "you start to think 'am I doing the best for my athletes?' You know there were times when I've said to both of them maybe you should go to another coach." Another coach described the self-doubts they experienced in the following quote:

You know, all these doubts come into your mind... I'm not good enough for this. I'm not going to be able to do this because I'm just an ordinary coach. I'm nothing special and I can't do this.

Other negative thoughts coaches experienced as a result of stress included becoming generally more negative in decision making, as one coach discussed that even though they felt their athletes were unaffected, they "became far less positive and constructive with things." Other raw data responses from coaches included "constantly chasing my tail", and "pressure building in the head", while three coaches mentioned having sleepless nights as a result of the stressors they encountered in their coaching careers.

4.4.1.1.2 Emotional responses. This lower-order theme consisted of four raw data responses. Eight coaches discussed a range of emotions experienced in response to stressors, the most common being anger. Coaches also discussed feeling frustrated and

annoyed, and, as one coach explained, it was common to experience a full range of emotions:

We had a staff meeting straight after that match, you know everybody called into the office and my blood was boiling, you know? I mean I was frustrated, I was kinda upset, disappointed, angry at the [athlete], you know, all these emotions.

4.4.1.1.3 Confidence. The final lower-order theme that characterised coaches' psychological reactions to stress consisted of one raw data theme in which four coaches suggested that their confidence was reduced due to the stressors they were experiencing. In explaining how confidence can be lost, one coach stated: "I lose confidence in myself, get worried... worried I'm doing or saying the right things."

4.4.1.2 Behavioural responses

As well as physical reactions, six coaches described several nervous behavioural responses to the stressors they experienced in their roles as coaches of world class athletes. Thus, within this higher-order theme, coaches referred to behaviours such as "pacing", "looking at my watch repeatedly", and "breaking down in tears." In addition, four coaches felt their body language became demonstratively more negative, as one coach described: "the minute I seem angry, agitated, or actually negative, that would be a big sign. I'm not very good at being negative... I'd say the body language would have shown."

4.4.1.3 Physical responses

In this higher-order theme, consisting of five raw data responses, six of the coaches interviewed described how they were physically affected by the stress they were experiencing. Coaches reported somatic symptoms such as increased heart rate and feeling physically sick, while one coach described his physical response to experiencing stress, saying "I would say that, you know, if you had a heart rate monitor on me as [the athletes] compete, I would probably be up around 200."

4.4.1.4 Negative effects on the coach

Eleven of the coaches described the negative effects that they perceived stress had on them. Specifically, in this higher-order theme, coaches described what amounted to longer-term effects of stress, as opposed to the more immediate responses outlined in the previous theme of psychological responses. Twenty-six raw-data themes were organised into the following four lower-order themes: negative affect, decreased motivation, relationships with others, and withdrawal.

4.4.1.4.1 Negative Affect. Seven of the twelve coaches interviewed discussed longer-term affective responses to stress experienced in their coaching roles. For example, coaches reported feeling emotionally fatigued, isolated and "feeling bad about life", while one coach suggested that "you go to the other end where you're totally depressed." As one coach explained,

I found it very difficult to cope and I ended up a bit depressed really. That was really tough. It was very hard for friends at home to understand that I needed to talk to someone. That was a very tough time.

4.4.1.4.2 Decreased motivation. This lower-order theme indicated that the motivation of six coaches was affected by the stressors they encountered in the job. For example, one coach recalled "wishing it was over" when coaching at a particular event, while another reported hesitating before recommitting to coaching after a World Cup. Several coaches indicated that they questioned their motivation to continue coaching because of the stressors they experienced. As one coach described:

You question everything, you know, am I cut out for coaching? I still loved [names sport], I still felt I had a lot to give within that role, but one year of doing it like that, I wasn't coping with it.

4.4.1.4.3 Relationships with others. Nine raw data responses constituted this higher-order theme and captured five coaches' feelings that their relationships with others were negatively affected by stress. Coaches described how it was "easy to be

short with people", "to ignore people you consider irrelevant", and to upset people around them. Several coaches suggested that relationships outside work could also suffer. For example, one coach discussed feeling demotivated at work and with family as a result of stress, while another reported that "even when you're at home, knowing the situation in the job, it was probably the worst six to twelve months of my life."

4.4.1.4.4 Withdrawal. In this theme, four coaches described responses to stressors that led them to feel physically and psychologically withdrawn. Coaches described becoming quieter and "more internal" as reactions to stressors, while one coach stated that they were "probably just a bit more withdrawn, slightly harder to approach generally."

4.4.1.5 Effects on Athletes

Fifteen raw data responses encapsulated coaches' responses which indicated that they perceive their stress to impact upon their athletes. Two lower-order themes, behaviour towards athletes and effects on athletes, emerged from the interview data and were then grouped to form this higher-order theme containing responses from seven coaches.

4.4.1.5.1 Behaviour towards athletes. Eleven raw data responses characterised how coaches felt their behaviour towards athletes changed when they were experiencing stress. For example, coaches said they became "too directive in coaching", or were "short with athletes", when experiencing stress. In explaining how such changes in behaviour impact upon athletes, one coach suggested they were not getting the best out of athletes, and that "instructions to athletes might get lost." One coach described how they felt their athletes suffered as their own standards dropped:

I wasn't watching for the things I needed to watch for... I was just coming in and it wasn't a conscious thing that I didn't wanna work, it was just I knew I wasn't as concentrated... and I wasn't producing as good work as I would normally.

4.4.1.5.2 Effects on athletes. In this lower-order theme, four raw data responses described how coaches felt their stress might directly affect their athletes. Coaches described how their athletes might lose confidence or "might wonder if the coach's stress is down to them", as a consequence of the coaches' responses to stressors.

4.4.1.6 Positive effects

Although coaches primarily referred to negative stress responses, seven of the twelve coaches interviewed felt that in certain situations, stress could result in positive responses as reflected in this higher-order theme. Specifically, 11 raw data responses were identified and categorised into three lower-order themes: increased focus, productivity, and determination.

4.4.1.6.1 Increased focus. This lower-order theme encapsulated raw data responses in which coaches described how stress could make them "sharper and more effective." One coach suggested he was "more alert to what goes on around you and the vibe that you are getting from different people", while two other coaches felt stress could be "useful, just to concentrate the mind."

4.4.1.6.2 Determination. In this lower-order theme, three coaches felt that experiencing some stressors could make them more determined to succeed. One coach described it as "being pushed to that sort of limit when you say, 'ah to hell with it, of course I can do it', and then you're away."

4.4.1.6.3 Productivity. The third lower-order theme in perceived benefits consisted of three raw data responses in which coaches discussed how they could respond to stress with increased productivity. One coach described this in the following quote:

Just being able to fit the work in, the stress has sometimes been able to do that ...the stress of knowing that there was a deadline where I was about to leave meant that I used to get huge amounts done in the last 3 days.

4.4.2 Coping with stress

A thorough review of the interview transcripts revealed that coaches used a wide variety of strategies to cope with the stress they encountered in their world class coaching careers. Ninety eight raw data responses representing distinct coping strategies were identified and organised into 19 lower-order themes. These were then organised into the following nine higher-order themes: structuring and planning, psychological skills, support, distraction, experience and learning, approach to coaching, maintaining positive coach-athlete relationships, avoidance, and confrontation. The raw data responses and themes are presented in Figure 4.2, with the number of coaches reporting each raw data response in parenthesis. Again, the numbers of coaches cited in each lower- and higher-order theme are also included and the findings are also presented using thick descriptive quotes (McKenna & Mutrie, 2003).

4.4.2.1 Structuring and planning

As a way of coping with the stressors associated with a world class coaching environment, detailed structuring and advanced planning was reported by ten of the 12 coaches. This higher-order theme consisted of four lower-order themes in which coaches reported strategies involving planning, communication, effective time management, and taking scheduled time off from coaching. These lower-order themes are presented below.

4.4.2.1.1 Planning. Seven coaches described how they would plan for competitions in terms of their pre-game strategies, and plan for specific situations that might arise. One coach discussed how having a yearly plan in place helped them to cope with some of the stressors they experienced during the competitive season. Planning in advance appeared to be a way of alleviating situations that coaches knew would be stressful, as one coach explained:

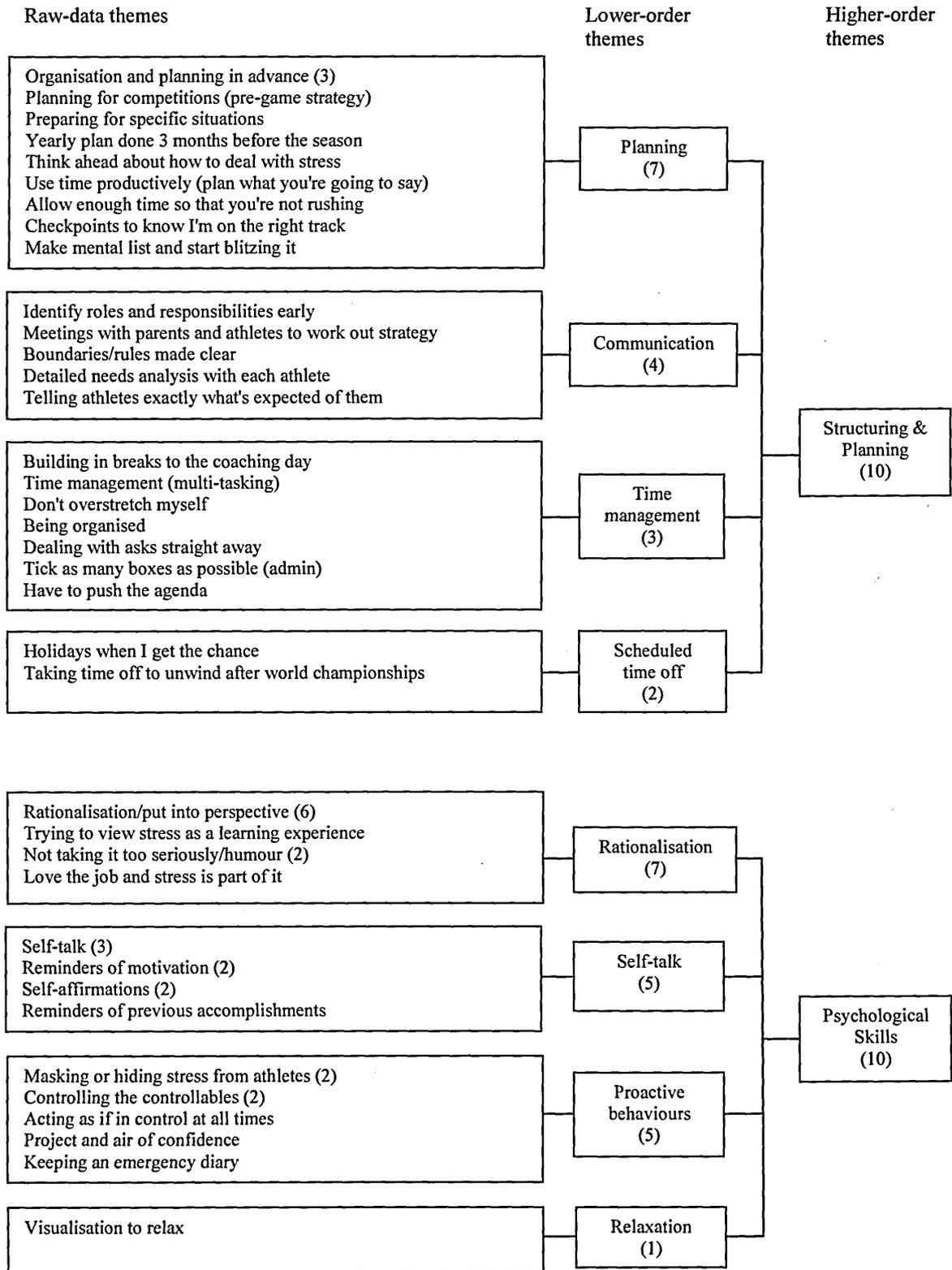
I'm just sort of getting the hang of it now... organising my life a bit better, a bit more in advance. I did sort of turn round to my [spouse] in the beginning and say, "oh, I'm going away next week for two weeks." So you could see how that would upset someone... so now it's all done a bit more in advance.

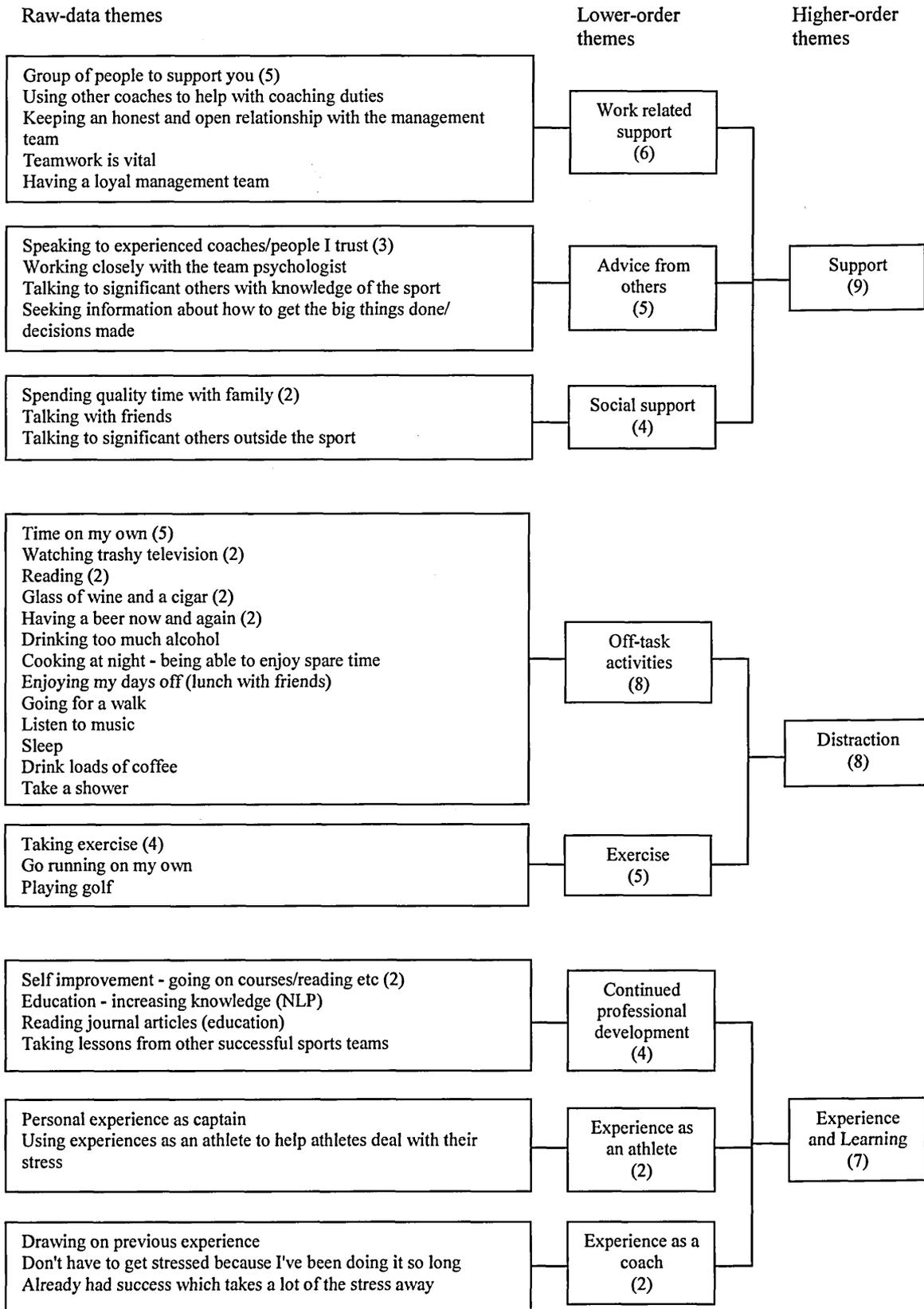
4.4.2.1.2 Communication. In this lower-order theme, four coaches discussed communicating clearly with athletes and with other staff as a strategy for coping with stress. Again, rather than coping with stress as it occurred, several coaches explained that "identifying roles and responsibilities early", and having "boundaries and rules made clear" were ways in which they reduced the potential for stressors to result in strain and negative responses. One coach explained how "telling players exactly what's expected of them" was a coping strategy for them. Thus it appears that coaches coped by laying out their expectations for athletes so that the responsibility was now on them rather than on the coach.

You can just say to 'em "look, this is how it is, you've got a lot of work to do. You've got to realise that you've got to get down here by nine o'clock 'cause you're missing out on all this preparation... it's up to you. I expect to see you down here at nine o'clock in the morning every day working hard. If I don't, what's that going to tell me about you?"

4.4.2.1.3 Time management. A second lower-order theme to emerge from the data related to coaches' time management skills. Specifically, this lower-order theme captured the responses of three coaches who described how they managed their time at specific events or competitions. For example, coaches referred to dealing with tasks immediately, and "ticking as many boxes as possible" when faced with several conflicting tasks to contend with.

You get your bits and pieces done that you can do immediately so that they are done and over with. If I come home at midnight and there are three letters in my in-tray, I would do those letters before I go to bed or before I have something to eat. I hate leaving things undone and that is a big advantage I think, in order to keep on top of stress.





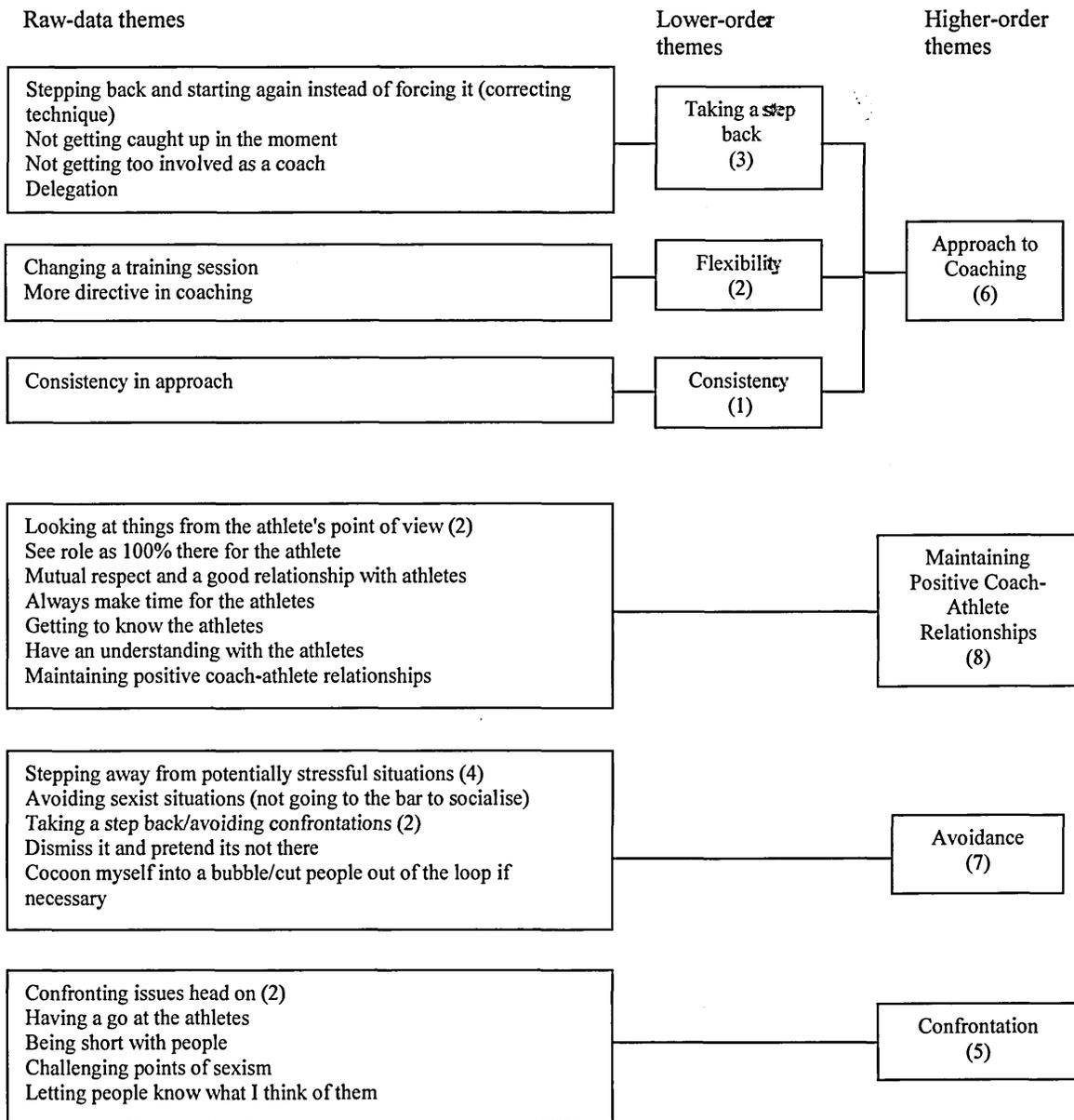


Figure 4.2 Coping strategies employed by world class, UK sports coaches.

4.4.2.1.4 Scheduled time off. Two coaches indicated that planning to take scheduled time off after major events was a way in which they coped with the stress involved in world class coaching. This is explained in the following quote:

Sometimes when you're away a long time with a group of players... it's gonna be training every day, six, seven hours. There's gonna be a lot of stress in that period of time... no doubt I'll need a week or so to unwind after a trip like that.

4.4.2.2 Psychological skills

Ten of the 12 coaches interviewed mentioned using some form of psychological skills to help them cope with the stress of coaching. Specifically 14 raw data responses were categorised into four lower-order themes: rationalisation, self-talk, proactive behaviours, and relaxation.

4.4.2.2.1 Rationalisation. Seven of the twelve coaches engaged in some form of 'rationalisation' as a method of coping with stress. One coach explained how they loved the job and accepting that stress was a necessary part of it was a way of coping for them:

There's a huge amount of stress involved, but when all's said and done, it's a fantastic job. I love the job and that's part and parcel of it, you know? And if you demand excellence, if you want excellence, you're never gonna get away from the stress really.

4.4.2.2.2 Self talk. Five coaches reported using some form of positive self-talk in order to cope with stressors. Three coaches specifically referred to occasions where they had reminded themselves of their motivation or previous accomplishments to cope with the stressors they were facing. One coach explained the importance of self-talk in the following quote:

I mentally talk to myself, you know, "don't forget why you're here... you're supposed to enjoy it, so why are you getting your knickers in a twist about [it] you know? Sit back and just enjoy it, that's why you're doing it."

4.4.2.2.3 Proactive behaviours. This lower-order theme comprised five raw data responses relating to coaches' active psychological efforts to cope with stress. One coach explained that keeping an emergency diary was a proactive form of coping with stress that worked for them, as it allowed them to "get everything off [their] chest" without a reaction. Two coaches suggested that they would "mask" or hide their stress from their athletes so that they would remain unaffected by the coaches' stress, while another explained how projecting an air of confidence was a coping strategy they used:

You put on this false sort of impression because you have to. You learn to project this confident image... You've gotta be the person who knows what they're doing, who's in control, and who's making the decisions.

4.4.2.2.4 Relaxation. This lower-order theme consisted of a single raw data theme. Specifically, one coach reported having to "go through all sorts of personal visualisation" to relax and to help them cope with the demands of world class coaching.

4.4.2.3 Support

Nine coaches discussed using support from several sources to cope with stress. Specifically, nine raw data responses were categorised into the three lower-order themes that characterised these sources of support: work related support, advice from others, and social support. These lower-order themes are discussed below.

4.4.2.3.1 Work related support. Five raw data responses comprised this lower order theme. Coaches explained how having a group of people to support you and keeping an honest and open relationship with the management team helped them to cope with stressors in the coaching role. One coach suggested that "it's more than likely that you've got a couple of good management people with you that you kind of bounce it off by discussing it and that's a way of relieving [stress]." Another coach mentioned that using other coaches in the programme to help with coaching duties was a coping strategy for them.

We often had two coaches at the institute of sport so I'd actually say "listen, I've tried this with you [the athlete], it hasn't worked, I want you to spend a month with my assistant coach and see someone saying something different." So it was like handing him across to someone to see if they could help solve the riddle, you know?

4.4.2.3.2 Advice from others. In this lower-order theme, five coaches discussed seeking advice from others as a way of coping with their job related stressors. Three coaches felt that speaking to other, experienced coaches helped them to cope with stress, as explained in the following quote:

Sometimes it's even going to a coach that I look up to myself or that I think values me and I'll just go and say that I've done this and that, do you think I've done all the right things, just to get some confirmation that I'm doing the right thing, you know. Sometimes I need to do that.

4.4.2.3.3 Social support. Coaches discussed talking with friends and "spending quality time with family" as ways in which they coped with stressors. Three such raw data responses were identified and grouped to form this final lower-order theme, social support. One coach explained that they "would never have those critical friends in the environment" and that they looked for support from "a close friend who played the sport but is not involved in the environment anymore."

4.4.2.4 Distraction

Sixteen raw data responses constituted this higher-order theme in which eight coaches described how engaging in activities away from the stressful environment could help them to cope with the demands of coaching. These 16 responses were organised into two lower-order themes: off-task activities and exercise.

4.4.2.4.1 Off task activities. Eight of the twelve coaches interviewed mentioned that off-task activities such as "having a beer now and again", watching television, listening to music, reading, going for walks, and "enjoying lunch with friends" helped them to cope with stress. One coach explained this in the following quote:

I do give myself down periods... I do try to take an evening a week where I sit down and I have a nice glass of wine and I smoke a cigar and I let my brain not think about anything ... then I do feel that I am better for it.

Other coaches also mentioned habits such as "drinking loads of coffee" or taking a shower as being a comforting distraction and a coping strategy for them. Having time on their own was an activity which appeared to help coaches cope with the demands of the job. As one coach stated: "I find it useful to have space for myself... I like to get a quarter of an hour, twenty minutes to myself at some point during the day, just to put things back into order."

4.4.2.4.2 Exercise. In this second lower-order theme representing distraction, five coaches mentioned that they took exercise of various forms, including running, cycling, and playing golf, as a strategy for coping with stress.

4.4.2.5 Experience and learning

Nine raw data responses captured how coaches used their personal experience and sought out new experiences to help them deal with the demands of coaching. Specifically, responses from seven coaches were categorised into three lower-order themes: continued professional development, experience as an athlete, and experience as a coach.

4.4.2.5.1 Continued professional development. Four coaches indicated that as well as drawing on previous experience, they continually tried to develop their coaching abilities and knowledge base, and cited this as something that helped them to cope with the demands associated with a world class coaching environment. One coach suggested that they "took lessons from other successful sports teams" which would help them when faced with stressful situations, while one coach explained how they tried to improve their abilities:

I would read a lot of books from sports people, a lot of religious books, a lot of business books, management books... you get the chance to be in contact with other sports and they have a lot of courses that you can go on... So I probably have been to every bleeding course that there has been around for a while. And, you know, you always learn something.

4.4.2.5.2 Experience as an athlete. Two coaches reported drawing on their experience as an athlete to help them cope with current stressors. One coach suggested that using their experiences as an athlete would help their own athletes to cope with stress, thus reducing stress for them.

4.4.2.5.3 Experience as a coach. This lower-order theme captured the ways in which two coaches discussed drawing on their previous coaching experience to help them manage their stress. One coach described in the following quote how having success in the past had removed much of the pressure for them later in their career:

It's more the fact that I've been doing it for so long that I don't need to get as stressed as I would have done ten, fifteen years ago... the chances of any athletes I ever coach being more successful, or bringing me more success than I've had up to this date, is so remote that that takes a lot of pressure away.

4.4.2.6 Approach to coaching

Seven raw data responses were thought to reflect an adaptable approach to coaching which six coaches described as a way of coping with stress. These responses were grouped into three lower-order themes: taking a step back, flexibility, and consistency.

4.4.2.6.1 Taking a step back. Four raw data responses comprised this lower-order theme in which coaches indicated that taking a step back from certain situations was a coping strategy they employed. One coach described how "not to get caught up in the moment" and "not over-coaching" was a way of coping with stress for them that also benefited their athletes. One coach discussed delegating tasks as a way to cope with the demands placed upon them, while another described how not getting too

involved as a coach was a way of coping with the stressors of a world class coaching environment:

I'm not that involved. You see some athletes whose coach gets up with them in the morning, goes to the gym, spends a whole day with them, really knows them... And you can see a coach who's more hands on getting more stressed when they don't do well 'cause they're so much more involved in it. Well we're a bit more stand-offish.

4.4.2.6.2 Flexibility. This lower-order theme reflected two coaches' comments that a flexible approach to their coaching style could help alleviate stress. Specifically, coaches indicated that becoming "more directive in coaching" and "changing a training session" might help them cope with stressful situations.

4.4.2.6.3 Consistency. This lower-order theme consisted of a single raw data response. One coach explained that keeping an even keel was a coping strategy for him: "...consistency is almost a bit of a mantra, that as a coach I should be consistent in success in defeat in, you know, hard times and good times."

4.4.2.7 Maintaining positive coach athlete relationships

Developing and maintaining a positive relationship with their athletes was cited by eight coaches as a strategy for coping with stress. Seven raw data responses were grouped into this higher-order theme with coaches stating that having a mutual respect and a good relationship with [athletes], and having an understanding with the athletes, helped to effectively manage their stress.

I look upon my role as being there 100% for that athlete. If that athlete asks me to run half way round the world to get a glass of water and back again, that would be my job. If they ask me to lick their toes, that would be my job, whatever it would take to get that athlete to perform in there.

4.4.2.8 Avoidance

In this higher-order theme, five raw data responses reflected the tendencies of seven coaches to avoid stressful situations. Specifically, seven coaches reported

avoiding stress as a way of coping. For example, one coach explained how in stressful situations involving colleagues or athletes, "once it gets past a certain point where I think that's it, we're not gonna make any headway now, I'm quite happy to say let's just stop and come back later."

4.4.3.9 Confrontation

Five raw data responses constituted this final higher-order theme. Five coaches suggested that confronting the stressor or displaying confrontational behaviours were strategies they used to cope with stressors. Two coaches explained that confronting issues head on might be difficult for young coaches but was a useful coping strategy for them:

I confronted him head on and we're really good friends because he actually appreciated my directness and honesty. It's real easy for me to do that now, but maybe 10 years ago, I wasn't able to go up to this person and confront them because I think even as a young coach learning, confrontation was a bit scary.

4.5 Discussion

While coaches clearly play an important role in the performance and satisfaction of athletes, they have several additional roles to fill. Sports coaching, particularly at the world class level, is a fundamentally stressful occupation (Gould, Guinan, et al., 2002), yet coaches working within an elite performance environment are only just beginning to receive the research attention and support they deserve. This study explored coaches' responses to stressors and the coping strategies they employ. Interviews with 12 coaches resulted in the emergence of six higher-order themes describing the variety of ways in which coaches respond to stress (e.g., psychological reactions and athlete transference), and nine higher-order themes representing a diverse range of coping strategies used by coaches attempting to manage stress (e.g., structuring and planning, psychological skills, avoidance, and maintaining positive coach-athlete relationships).

Despite the importance of the coach-athlete relationship, an interesting finding in the present study was that over half of the coaches (seven out of 12) indicated that their responses to stress had a significant impact on their athletes. Specifically, coaches reported that as a consequence of their own responses to stress, their standard of work might drop, they would fail to get the best out of their athletes, and that in general, the communication between themselves and their athletes would suffer. Moreover, coaches indicated that their athletes' confidence and performances might also be damaged or hindered as a result. These findings are synonymous with those of Frey (2007) and McCann (1997) who reported that athletes were not only aware of when their coaches were affected by stress, but also might be affected by this themselves. Indeed, Olympic athletes have reported that stress and tension among staff "permeated the whole atmosphere where all the athletes [were] living (Greenleaf et al., 2001, p.174) and that that coaches' inability to handle pressure situations and avoid distractions were factors that influenced their performances (Gould et al., 1999). However, the findings of the present study demonstrate that coaches also recognise that changes in their behaviour, such as changes in their body language and tone of voice, might impact upon athletes. These findings are particularly important when considering that effective verbal and non-verbal communication is considered the most important aspect of coaching (LaVoi, 2007). Indeed, as LaVoi suggested, the nuances associated with communication are perhaps more important than the content, and "exert a powerful metacommunicative influence on a relationships" (p.31). In short, coaches' can unintentionally influence their athletes via their form of communication.

The present study demonstrates how stressors can affect coach behaviour in a negative manner, and it would appear that coaches recognise that changes in their behaviour during times of stress are stressors for their athletes. These situation specific behaviour changes in coaches, and the specific ways in which athletes are affected,

certainly warrant further investigation. As such, future research should explore how athletes interpret coaches' verbal and non-verbal behaviours. The effects of coach's stress responses on athletes' subsequent behaviour, performance, and perceptions of their relationships with their coaches should also be examined. Further, determining how much variance in an athlete's performance and satisfaction is due to their perceptions of coach-athlete communication and their coach's ability to manage conflict, might be an important research avenue (LaVoi, 2007).

In addition to the effects on athletes, coaches discussed several responses to stressors that they felt had negative consequences for themselves. Indeed, all 12 coaches reported negative psychological responses to stressors, similar to symptoms of burnout previously described in the literature (e.g., Schaufeli & Buunk, 2003). Specifically, coaches reported feeling emotionally and mentally fatigued, a sense of reduced enjoyment, and, importantly, six of the coaches interviewed felt they were losing or questioning their motivation to continue in the job. These findings certainly lend support to stress-based explanations of burnout (Smith, 1986; Vealey et al., 1998), and the fact that coaches at this level were reporting burnout symptoms also lends credence to the notion that highly motivated individuals with high expectations and goals might be more susceptible. However, it should be noted that in previous research, the actual levels of burnout found in coaching populations have not been particularly high. For example, Caccese and Mayerberg (1984) found that while female coaches scored higher than their male counterparts on emotional exhaustion and reduced personal accomplishment dimensions, no coaches were excessively burned out. Whether or not coaches are more or less burned out than individuals from other occupations, the findings of the present study indicate that coaches did experience symptoms of burnout in response to stress. As Kosa (1990) asserted, withdrawal from coaching as a result of burnout has severe implications for the development of expertise

in coaching. This is especially important given that one of the most important elements in the development of young coaches is their learning from more experienced coaches (Cushion et al., 2003). While no statistical measures of burnout were taken in the present study, the findings certainly add to existing literature, suggesting that burnout might well be a feature of elite sports coaching. Future research with elite coach samples might include such measures, as it would be interesting to compare data from world class coaches with that of dual-role collegiate coaches and, indeed, other highly interpersonal occupations. This would seem particularly relevant given that in their systematic review of burnout in sport, Goodger et al. (2007) identified that "there is a notable absence of elite coaches" (p.132).

Lazarus (2000a) proposed that stress is, more often than not, associated with negative responses. While this association does not necessarily fit within a transactional approach to the study of stress, one possible explanation for its perpetuation is that alleviating these negative responses is a major concern for sport psychology practitioners. Despite the focus on negative responses, coaches in the present study did discuss some experiences of stress that they perceived to have positive consequences (e.g., an increase in productivity or with increased motivation to succeed). In Frey's (2007) study of collegiate coaches, it was also reported that despite negative reactions, stress could be a source of motivation, heighten awareness, or could help coaches prepare better for the future. Indeed, coaches participating in the present study generally felt that experiencing stress was negative at the time, and that only after a period of reflection could stressful experiences be viewed as positive.

While coaches' discussed a variety of responses to stress, they also reported a wide range of strategies used to cope with the varying demands of world class coaching. The findings underpin previous research into coping in sport which has supported a process approach to coping (Gould et al., 1993; Gould, Finch et al., 1993), as coaches in

the present study often reported using multiple coping strategies to cope with a single stressor. For example, one coach suggested that they might talk to others outside the sport and, at the same time, challenge the person who was the stressor, all the while trying to maintain an open and honest relationship with other team members.

Although various problem- and emotion-focused, approach and avoidance taxonomies of coping have been described (e.g., Anshel et al., 1997; Lazarus & Folkman, 1984), as an exploratory study, this investigation did not attempt to fit coach data into existing coping frameworks. However, strategies that could be described as emotion- and problem-focused were discussed by coaches. The most cited higher-order theme to emerge from the interview data (structuring and planning) reflected coaches' abilities to plan ahead and organise as an almost "pre-emptive" method of coping with stressful situations. Coaches seemed to be aware, from previous experience, of situations that could potentially result in negative stress responses and therefore took steps to reduce the potential for these situations to have negative outcomes. Similarly to problem focused strategies identified by athletes (Gould, Jackson, et al., 1993), coaches attempted to plan and manage their time to avoid stressful situations. Coaches also described additional strategies that seemed to reflect a pre-emptive, problem-focused approach to coping with stress. For example, coaches discussed attending coaching courses and reading coaching and professional practice journals (i.e., continued professional development), as alternative ways of minimising the chance that stressful situations would occur. Further, coaches described taking lessons from other successful sports teams and learning from their own experiences as coaches (and as athletes) to help them cope with the demands of coaching.

While it is encouraging that the majority of these experienced coaches seemed to use problem focused coping strategies, they tended to describe these strategies as ways to help them avoid stressful encounters in the first place, rather than as strategies to cope

with stressors "in the moment." Indeed, eight of the 12 coaches identified distraction as a way of coping. Five coaches discussed taking exercise as a way to cope with stress. The benefits of exercise to psychological well being have been extensively documented, with aerobic exercise being linked with higher tranquility and lower state anxiety scores (e.g., Focht & Hausenblas, 2001). However, the larger of the lower-order themes reflected coaches' desires to engage in off-task activities to avoid stress. Specifically, coaches described "taking a step back" from potentially stressful situations as a coping strategy. Avoidance has been defined as behavioural and cognitive removal of the self from the stressor or an attempt to either physically or mentally turn away from the stressor (Anshel, 2001) and has been reported in several previous studies of stress in sport (e.g., Crocker, 1992; Anshel & Kassidis, 1997; Giacobbi et al., 2004). Although problem-focused coping strategies have been found to be predictive of positive affect, emotion-focused strategies and avoidance appear to predict negative affect and are associated with greater cognitive anxiety (Ntoumanis & Biddle, 2000). However, this needs to be investigated further within the arena of elite sports coaching.

Despite coaches' propensity to avoid stressors, ten of the 12 coaches also reported some use of psychological skills in their efforts to cope with stress. For example, coaches discussed using a range of skills such as rationalisation and self-talk. However, again in support of previous research (Thelwell et al., 2008a), only one coach in the present study reported using relaxation techniques. This might be, in part, due to the competition environment not affording coaches the time or space to utilise "portable" psychological skills. Consequently, rather than using these skills at the time, coaches appeared to rely on extensive planning to remove the potential for stress.

It is clear from these findings, and previous research, that coaches might require more support to successfully cope with the demands of world class sports coaching. For example, Gould et al. (1999) suggested that coaches need psychological support and to

work closely with a sport psychologist. This was supported by one of the coaches participating study one (Olusoga et al., 2009) who stated, "there's nothing there really to back up the coaches when the coaches need someone to talk to and say 'how can I cope with that, how can I deal with my athlete?' ...I think sometimes, the coaches are forgotten." As evidenced in the present study, coaches' loss of motivation and confidence, and the burnout symptoms they experienced, might be attributable to them being ill equipped to deal with the demands of coaching elite athletes. Indeed, the coaches' widespread use of avoidance, and limited use of psychological skills would seem to suggest that they might benefit from developing their coping skills.

While it seems clear that the coach-athlete relationship is stressful for both parties, it is also clear that coaches place a high level of importance on that relationship. Specifically, coaches' felt that maintaining a positive relationship with their athletes helped them to cope with the stress of coaching. Thus, future research should attempt to uncover what athletes and coaches at this level actually require from one another. Investigating methods of facilitating this relationship would be beneficial in aiding coaches and athletes' understanding of one another in a high pressure environment.

Although coping effectiveness was not investigated per se, coaches did discuss ineffective coping strategies. For example, one coach suggested that playing golf to relieve stress was ineffective as it simply caused more stress. Another coach suggested that seeking social support resulted in more interaction with other coaches and staff, which, in turn, led to more demands being placed upon them. While coping effectiveness has been difficult to conceptualise and is still less than well understood (Nicholls & Polman, 2007; Ntoumanis & Biddle, 1998), this area of research might also prove fruitful.

4.4.1 Strengths and limitations

As the second study in the first phase of this thesis, this investigation used in-depth interviews to allow a detailed exploration of coaches' responses to stress, the effects of stress, and the coping strategies they employ. The study built on previous research, and findings revealed that as well having an impact upon their athletes' experiences, stressors can have a negative and somewhat longer-term effect on coaches' own personal lives and relationships. Furthermore, although recent research suggests that elite coaches do employ psychological skills (Thelwell et al., 2008a), the findings of the present study suggested that coaches' use of such skills to cope with stressors was limited, despite their attempts to use a vast array of coping strategies to cope with the stressors they encountered. It was felt that the small sample size was offset by the participants' vast wealth of experience in a world class coaching environment (a mean average of over 14 years). Furthermore, to ensure as broad a range of experiences as possible was explored, the sample included male and female coaches and was purposefully taken from a broad range of team and individual sports. Although there has been a recent increase in the study of elite coaches in the UK, by focusing on world class coaches of international level performers, the present study also extended previous literature which has predominantly focused upon collegiate and high-school coaches in North America. Moreover, by examining the ways in which coaches responded to stressors (and the perceived effects for them and their athletes), as well as the coping strategies they used to manage stress, this study explored coaches' stress experiences beyond an identification and classification of stressors they encounter in their coaching roles.

As with study one, a potentially limiting factor was the timing of the data collection (i.e., the cycle of competition the coach was in at the time of interview). It is possible that whether coaches had recently returned from a major competition or were

in a preparation phase might have influenced their reporting of stress responses. As such, future research should perhaps consider specific phases of the competitive cycle (e.g., preparing for Olympic competition, returning from a world cup) when exploring coaches' stress experiences. Furthermore, although the present study has given an insight into the ways in which coaches generally respond to and attempt to cope with stressors, specific responses and coping strategies were not linked with specific stressors that coaches experienced. Although previous research has reported the frequency of stressors that coaches encounter (e.g., Thelwell et al., 2008b), exploring the precise impact of specific organisational and competitive stressors on coaches would be a fruitful area for future research. This would certainly be in keeping with recent stress research conducted with athlete populations (Weston et al., 2009). However, as coaches have described experiencing multiple stressors occurring in combination (Olusoga et al., 2009), it is important to note that it may not be a straightforward task to link specific responses and coping strategies to specific stressors that coaches encounter.

4.6 Conclusions

The purpose of this study was to explore world class sports coaches' experiences of stress by investigating the responses and effects of stress for world class UK sports coaches and the coping strategies they use. Findings indicated that coaches responded to stressors in a number of diverse ways. For example, coaches described experiencing symptoms of burnout in response to stressors, as well as immediate physical and emotional responses and longer-term effects on their social lives and relationships. Importantly, coaches also perceived that their responses to stress had direct and indirect effects on their athletes. Further exploration of the psychological skills used by coaches in the competition environment is warranted. While the present study also endeavored to explore the vast array of coping strategies used by world class coaches, it did not attempt to explore coaches' perceptions of whether or not their coping attempts were

effective. While Levy et al. (2009) explored coaches' perceptions of coping effectiveness using self-report measures, this is still an area which requires further attention if appropriate coping interventions are to be implemented with coaches. However, more subtle and objective ways of measuring coping effectiveness (i.e., beyond self-report measures) must be developed in order to gain a better understanding.

However, the findings of this study do suggest that sport psychology practitioners should work closely with coaches to help the coaches develop the skills and strategies needed to cope with the demands of world class coaching. This could have important implications, not only for the performance and satisfaction of the coaches' athletes, but also for the coaches' relationships outside sport. Findings also suggest that successful, experienced coaches might be a valuable source from which younger, developing coaches could draw support and guidance during their development. The implications of these findings are discussed further in Chapter VII, but there seems a clear need for sport psychology practitioners and coach education programmes to guide coaches towards developing the psychological attributes needed to be successful in a highly stressful and pressurised world class coaching environment. Future research is required, however, to determine precisely what successful coaches, and perhaps their athletes, feel these important attributes might be.

CHAPTER V

Study Three

Coaching Under Pressure: A Study of Successful British Olympic Coaches¹

5.1 Introduction

The preceding chapters, along with previous research findings, have identified coaching, especially in the arena of world class sport, as an inherently stressful occupation (Gould, Guinan, et al., 2002; Taylor, 1992). Emphasising the dynamic nature of the stress process, Fletcher and Fletcher (2005) proposed a meta-model of stress, emotion and performance, outlining the relationship between the processes, moderators, and consequences of the stress process, and providing a solid theoretical and conceptual grounding for the study of coaches' stress experiences (Fletcher & Scott, 2010). While various organisational, competitive, and personal stressors were identified in Chapter III (Olusoga et al., 2009), Chapter IV (Olusoga et al., 2010) explored coaches' responses to stress and the consequences of stress for them, their athletes, and, indeed, for their relationships outside sport. In response to stress, coaches experienced symptoms similar to those described in the burnout literature, such as emotional and physical exhaustion, lack of confidence and motivation, and withdrawal. Coaches also felt that their athletes' performances and attitudes could also be negatively influenced by their own stressful behaviour. For example, one coach suggested that "if the coach is stressed, athletes pick up the signs and they're stressed and then you get a spiral of poor performance."

¹ The study reported in this chapter has been accepted for publication: Olusoga, Maynard, Hays, & Butt (2012). Coaching under pressure: A study of Olympic coaches. *Journal of Sports Sciences*, 30(3) 229-239.

An exploration of coaches' coping strategies indicated that their application of psychological skills to cope with the demands of coaching was generally limited. Indeed, despite the physical and behavioural responses to stressors noted by coaches, only one of the 12 coaches reported the use of relaxation techniques and only four described a form of self-talk. Furthermore, avoidance and distraction were often used strategies for coping with the demands of world class coaching. While coaches appeared to experience a vast array of stressors, often in combination, and reported that responses and effects of stress are potentially damaging to both coach and athlete, because of the nature of the research it would be remiss to generalise these findings to wider populations. However, the increase in coaching research seems to complement the studies described in previous chapters and support the fact that coaches at the elite level experience numerous stressors and various strains (e.g., Thelwell et al., 2008b).

It is important to note though, that there are a number of sport organisations that have maintained a consistent level of success in what appears to be an inherently stressful environment. The purpose of the present study was to explore the factors that enable coaches to perform their complex, multifaceted roles successfully in a world class, highly pressurised environment. Specifically, as the Olympic Games has been identified as a unique sporting environment in terms of media attention and the focus on the competition (e.g., Gould & Maynard, 2009), the study investigated the factors influencing successful coaching performance within one of Great Britain's most successful ever Olympic programmes².

5.1.1 Coaches' coping strategies and use of psychological skills

In Olympic competition, being in control of one's own emotional state and masking certain emotions from athletes are just some aspects of a coach's performance.

(Gould, Guinan, et al., 2002, p.231)

²This was based on the number of medals won in the last five Olympic Games (Barcelona, 1992 - Beijing, 2008). To protect the anonymity of the participants, the sport cannot be named.

Several researchers have investigated the ways in which coaches at a variety of levels have incorporated psychological skills such as goal setting, confidence building, and motivational strategies into their own coaching techniques (e.g., Mechikoff & Kozar, 1983; Silva, 1984; Weinberg, Butt, Knight, & Perrit, 2001). Gould, Hodge, Peterson, and Petlichkoff (1987) examined coaches' use of psychological skills, exploring the differences and similarities between intercollegiate wrestling coaches. Coaches reported that mental toughness, positive attitude, individual motivation, and attention-concentration were the most important psychological attributes for success in wrestling. Further, coaches indicated that the strategies they could most easily develop with their athletes were goal-setting, team cohesion, and imagery. Although the coaching literature has uncovered a plethora of issues pertinent to coaches at all levels, and has shed light on how coaches use psychological skills to help athletes cope with the demands placed upon them (e.g., Hall & Rodgers, 1989), the ways in which coaches attempt to cope with the strain these issues cause *them* has only recently begun to be investigated (cf., Frey, 2007; Olusoga et al., 2010). The ability to incorporate goal setting, confidence building, and relaxation into athletes' training programmes could certainly help coaches cope with "athlete-based" stressors such as lack of professionalism or commitment (Olusoga et al., 2009). However the attributes and skills that coaches' require to enable them to cope with the demands of a world class coaching environment and perform their roles successfully remain underexplored.

In one of the few studies that have investigated the strategies used by coaches attempting to manage their own stress experiences, Frey (2007) explored the coping strategies of collegiate coaches in the USA. Coaches employed a variety of cognitive, emotional, and behavioural strategies, although only three of the ten coaches involved in the study reported the use of formalised psychological skills to manage stress. While coaches at the world class level have also discussed coping strategies, including

extensive planning and organisation, using social support, and trying to maintain positive relationships with athletes (Olusoga et al., 2010), the application of psychological skills as coping strategies was not as widely reported. In their exploration of psychological skills use in elite coaches, Thelwell et al. (2008b) found that self-talk and imagery were used by the majority of coaches in training and competitive situations, for several purposes, including controlling emotions, facilitating focus, and reviewing sessions. However, far fewer coaches reported the use of relaxation, and goal setting, and cited their use for fewer purposes. Although this study gave an insight into the psychological skills used by elite coaches, the authors conceded that it was limited by addressing only four preselected psychological skills. Other skills, such as activation and emotional control (which might, in fact, be more salient skills for coaches to possess) might well be also used by coaches to facilitate their ability to coach effectively under pressure. Along similar lines, the aim of study two of this thesis (Olusoga et al., 2010) was not to assess coaches' use of psychological skills; rather, it was to explore their coping strategies in response to stress. As such, it might well be that the coaches involved in the study do use key psychological skills in other situations.

Despite overwhelming evidence that coaching is a stressful occupation, coaches are still clearly capable of performing their roles successfully and inspiring their athletes to great success while working under tremendous pressure. Gould and Maynard (2009) suggested that clearly defined coaching roles, clear performance plans, remaining focused, and staying calm under pressure were important aspects of coaching performance. However, as the findings of the above studies suggest that coaches' application of particular psychological skills might be limited, it would appear that further research is needed to identify the skills and attributes required for effective coaching under pressure. Indeed, Taylor (1992) commented on the "growing concern" over stress in sports coaching (p.27) and advocated the use of cognitive, behavioural,

and emotional/psychological coping skills with coaches, including relaxation training and cognitive restructuring. However, while mental skills training has proved useful for cultivating and maintaining the psychological skills needed for top class performance, there are several other factors, such as personal and situational characteristics, which need to be considered (Fletcher & Scott, 2010) if we are to gain a greater understanding of how world class coaches manage the stressors associated with elite sport and perform under pressure.

5.1.2 Factors associated with elite performance

Although coaching psychology research has become more popular, the focus of researchers, consultants, and indeed coaches, is often directed toward developing and maintaining the psychological attributes and characteristics required for the performance enhancement and personal growth of athletes (Gould & Maynard, 2009; Williams, 2006; Williams & Straub, 2006). Under the rubric of 'mental toughness', the psychological characteristics and attributes required for top class athletic performance have been explored in depth (cf., Connaughton, Wadey, Hanton, & Jones, 2008), and while this research has likely informed those working with athletes, literature exploring these characteristics in coaches is less frequent.

In an early study ten international performers, purposefully chosen to represent a diverse range of sports, participated in focus groups or one-to-one interviews (Jones, Hanton, & Connaughton, 2002). Twelve attributes were identified, relating to self-belief, desire and motivation, dealing with the pressure and anxiety of competition, performance related and lifestyle related focus, and dealing with physical and emotional pain. Thelwell, Weston, and Greenlees (2005) and Bull, Shambrook, James, and Brooks (2005) conducted studies of soccer and cricket respectively and, using similar methods, found support for the initial mental toughness framework found by Jones et al. (2002). While Jones et al. (2002) and Thelwell et al. (2005) sought to provide some

conceptual clarity, Bull et al. (2005) extended this line of research when factors influencing the development of mental toughness emerged as important themes. Specifically, athletes early experiences, such as being exposed to foreign cricket, needing to "earn" success, and having the opportunities to survive early setbacks, were crucial in providing a solid and stable base upon which a tough character, attitude, and thought process could stand.

There is no doubt that this research has been informative for those working with athletes. However, as is now well established, coaches are considered performers themselves, not least because they are expected to carry out their coaching duties in an exceptional manner, in a highly pressurised setting, with their jobs often depending on the success of their athletes and teams (Gould et al., 2002). Although coach education programmes and the majority of research articles dedicated to coaching theory and practice make some reference to the multifaceted nature of coaching (Lyle, 2002), the discussion is often restricted to a mere description of coach roles and responsibilities.

The factors that enable coaches to cope with the demands of elite coaching and perform successfully in a highly pressurised, world class environment have received limited attention. Jowett (2008) suggested that coach motivation might be particularly important as it "determines the form, direction, intensity, and duration of coach behaviour" (p.664). In addition, based on a dualistic model of passion (Vallerand et al., 2003), Lafrenière, Jowett, Vallerand, Donahue, and Lorimer (2008) reported that harmonious passion was as an important factor in determining the quality of the coach athlete relationship. These studies explored specific aspects of coach motivation, behaviour, and the coach athlete relationship, and highlighted some practical implications for working with coaches to enhance the athlete experience. However, other factors that may contribute to coaches' performance, effectiveness, and eventual success, were not explored.

5.2 Study aims

UK Sport has suggested that "by 2012 the practice of coaching in the UK will be elevated to a profession acknowledged as central to the development of sport and the fulfillment of individual potential" (UK Sport, 2000, p.5). Indeed, researchers have commented on the need for sport psychology research tailored specifically towards coach development (e.g., Williams & Kendell, 2007). In related occupations such as teaching (e.g., Evers, van der Heijden, Kreijns, & Gerrichhauzen, 2011), and for various managerial and leadership roles (e.g., Pritchard, 2000), research has attempted to identify factors that contribute to professional development. In a sporting context, Griffith (1925) suggested that studying experienced athletes and coaches to discover the effective psychological principles they use, and passing on this information to less experienced athletes and coaches, was, and should continue to be, a major tenet of sport psychology. However, while the majority of research in sport psychology has focused on developing effective psychological principles for athletes (Williams & Straub, 2006), it has been recently acknowledged that coaches must also "perform" in the world class sporting arena. Thus, it would seem essential for the education, and the personal and professional development of coaches, that the psychological as well as the technical factors influencing coaching performance at the elite level are explored. As such, the major purpose of this study was to consider the perceptions of a group of highly successful Olympic coaches in an attempt to identify the factors that facilitate their ability to cope with the multifaceted stressors inherent in world class coaching, and to perform their roles under pressure. Further, given the limited application of psychological skills identified in the literature, it was also deemed appropriate to explore coaches' perceptions of sport psychology support. A secondary purpose was to identify the ways in which these coaches have developed their ability to coach successfully in highly stressful situations, with the ultimate aim of driving an

intervention package aimed at helping coaches to develop the strategies, skills, attributes required for world class performance under pressure.

5.3 Method

5.3.1 Participants

With institutional ethics approval³, eight male coaches aged 33-53 years (43.25 ± 6.2 years) from one of Great Britain's most successful Olympic teams⁴ participated voluntarily in the study. For inclusion in the study, and to ensure the credibility of the data emerging from the interviews, coaches were required to have worked with Olympic-standard athletes for a sustained period of time (13.13 ± 8.1 years). All coaches had attended between one and five Olympic Games in a coaching capacity and between them had amassed over 20 Olympic coaching appearances. At the time of interviews coaches were in the middle of a four-year Olympic cycle (i.e., two years prior to the London, 2012 Olympic Games).

5.3.2 Procedure

Initial contact with the sporting organisation was made by contacting the full time sport psychology consultant (SPC). Contact was then made with the programme Performance Director (PD) and the aims and purposes of the study were explained. Once permission had been obtained from the PD, coaches were contacted directly by email and a follow up telephone call. Participants were informed of the nature of the study, were assured that their comments would remain anonymous and that data would be treated confidentially. Convenient times for the interviews were then agreed and informed consent was obtained prior to data collection. An initial interview guide was

³ Ethics approval for study three was applied for and granted by Sheffield Hallam University, based on the study consisting of "minor procedures" (See Appendix D).

⁴ To respect the wishes of the organisation involved, it was agreed that the results would be reported anonymously.

pilot tested with five collegiate coaches from a University in England. This process resulted in the phrasing of two questions being altered to enhance clarity.

5.3.3 Interview Guide

Based on the existing literature, a semi-structured interview guide⁵ ensured all participants were asked the same set of major questions (Gould et al., 1993). However, as participants were encouraged to elaborate, the interviewer let the natural flow of conversation direct the discussion, and explored coaches' unique experiences in greater depth as they arose (Patton, 2002). The interview guide was divided into five major sections and coaches were reminded to focus on their Olympic experiences throughout. The first involved introductory questions about the coaches' experience and background, and encouraged participants to talk descriptively (Patton, 2002). The second part of the interview guide focused on the factors influencing Olympic coaches' ability to perform successfully in a stressful environment (e.g., "The Olympic environment has been identified as highly demanding for coaches and athletes alike. What do you feel are the factors that influence your performance as a coach in such an environment?"). This was followed by questions about how these successful coaches had developed their ability to coach successfully in a world class, Olympic environment (e.g., Has anyone or anything specifically helped you develop [attributes/skills discussed]?), and specific advice as to how developing coaches might prepare themselves for the demands of such an environment (e.g., "What should appear in training and development programmes that will help developing coaches prepare for the demanding environment of the Olympics?"). A final section explored coaches' perceptions of the role of the sport psychologist. Probes were used throughout to elicit in depth information and to ensure that coaches had discussed everything they felt relevant before the interviewer moved on to the next section. Coaches were also given the opportunity to discuss anything that

⁵ See Appendix E for a copy of the interview guide used in this study.

they felt was relevant and that they had not had the opportunity to discuss during the preceding interview sections. All interviews were conducted by the principal investigator who was trained in qualitative research methods and had experience of previous interview-based research. Due to the busy schedules of the coaches involved, all interviews were conducted via telephone (Weinberg, Butt, & Knight, 2001). While this limited the face-to-face interaction and use of body language to encourage participants to talk, the interviewer took steps to address these issues (e.g., more time building rapport at the start of the interview, summarising to aid interpretation).

5.3.4 Data Analysis

Each interview was tape recorded and transcribed verbatim by the first author and interviews were approximately 45 minutes in length⁶. To ensure trustworthiness of the data, transcripts of each interview were content analysed by three researchers using procedures recommended by Miles and Huberman (1994) and described in detail in Chapters III and IV. The analysis was deductive in that the overall areas of study were delineated by the interview guide. However, lower- and higher-order themes within each section emerged via inductive analysis of the data. It has been suggested that the prior experience and knowledge of the research team might bias the emerging themes (e.g., Pidgeon & Henwood, 1997). However, steps were taken (i.e., analyst triangulation) to minimise this potential influence on the interpretation of data.

Common themes were identified and the raw data themes were organised into groups of like responses, resulting in the emergence of lower- and higher-order themes. For example, raw data responses such as "sharing the same goal", "making life easier for the athlete", and "being prepared to let the athlete take control", were grouped to create the lower-order theme "athlete focus". Consensus was reached on all themes through meetings and discussions with the research team.

⁶ See Appendix F for an example transcript.

5.4 Results

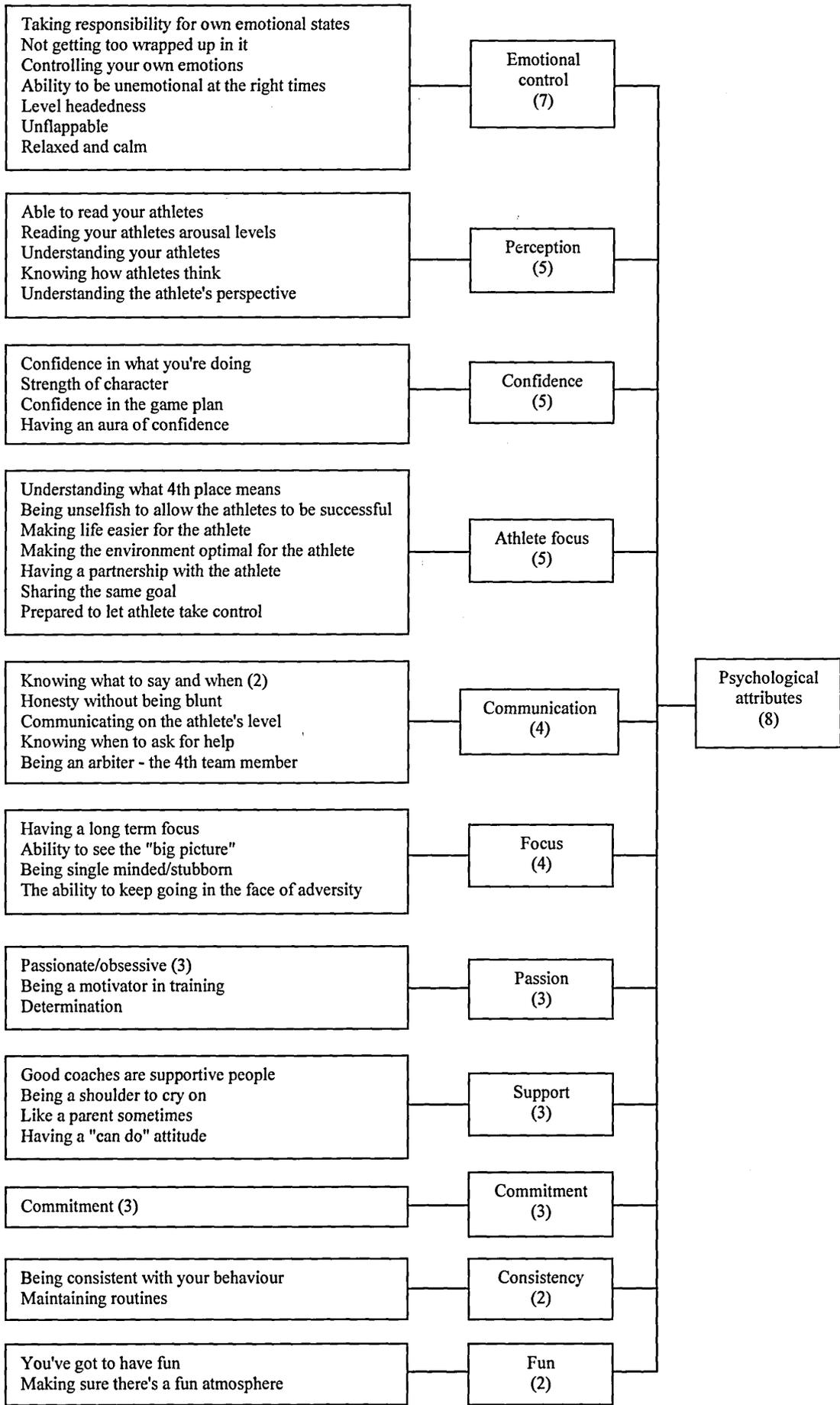
The results are presented in four sections: First, coaches' responses regarding successful performance on the Olympic stage are presented. These are followed by data pertaining to coaches' development, advice for developing coaches, and coaches' perceptions of sport psychology.

5.4.1 Successful performance on the Olympic stage

A total of 80 raw data responses were identified from a thorough review of the interview transcripts. These were organised into 22 lower order themes, and subsequently into three higher order themes: psychological attributes, preparation, and coping at the event. All the raw data responses are presented in Figure 5.1, with the number of coaches reporting each raw data theme also presented (in parentheses). The numbers of coaches cited in each lower- and higher-order theme are also provided. So that the reader can understand the context of the data, thick descriptive quotes are used to illustrate the emergent themes (McKenna & Mutrie, 2003).

5.4.1.1 Psychological attributes

The largest of the higher order themes describing factors that influence coaching performance contained responses explaining the psychological attributes that coaches felt were vital for effective coaching at the Olympics. Specifically, 44 raw data themes were categorised into the 11 lower order themes: emotional control, perception, confidence, athlete focus, communication, focus, passion, support, commitment, consistency, and fun.



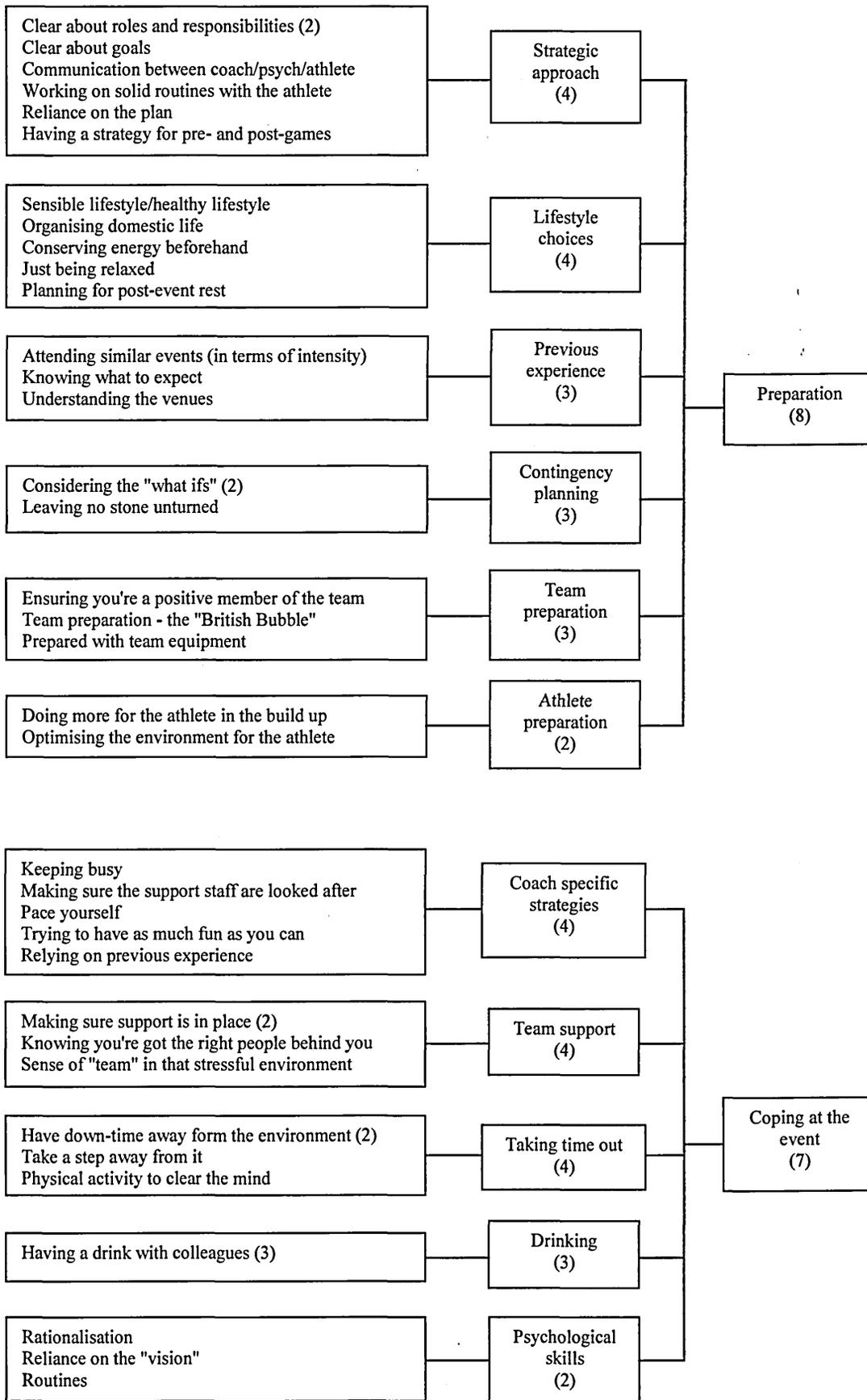


Figure 5.1 Factors influencing successful Olympic coaching

5.4.1.1.1 Emotional control. In this lower-order theme, seven raw data themes characterised coaches' beliefs that being in control of their emotions was an important factor in Olympic coaching success. Specifically, seven coaches discussed how "controlling your own emotions", and "not getting emotionally involved", were important psychological attributes for a coach at the Olympic level. For example, as one coach explained,

I think I was pretty unflappable, you know, completely calm in a crisis, probably more measured than I should have been, very measured, very considered... you try not to react when things have gone wrong and an athlete's annoyed... wait for that emotional response to pass, until you can get down and say, "right, ok, let's sit down and talk that through properly."

5.4.1.1.2 Perception. Five raw data responses comprised this lower-order theme characterising coaches' thoughts that being able to "read" their athletes was an important factor in Olympic coaching. Five coaches felt that "understanding your athletes" and "knowing how your athlete thinks" were important psychological attributes. One coach underlined the importance of reading their athletes, suggested that "working with three athletes, you might have a day when one of them doesn't want to train and the other two are bursting with the joys of spring... if you go out [train] you might break the first athlete", while another felt that,

being sensitive to the athlete's needs and deciding when you've got to press them on the course or direction you're taking, or realise that actually, it's time to change direction, those are quite subtle nuances that I think are really pretty important.

5.4.1.1.3 Confidence. This lower-order theme captured four responses indicating that feeling and displaying confidence were essential for successful coaching performance in an Olympic environment. Specifically, five coaches explained that having "confidence in what you're doing" and projecting an "aura of confidence" were important attributes for them. One coach described this in the following quote:

It's having the strength of character to make judgements like that... If you're going to help them, you need to be quite confident and have confidence in yourself, or else you won't make them believe in you. They have to believe in you or else you might as well just not be there.

5.4.1.1.4 Athlete focus. In this lower-order theme, consisting of seven raw data themes, five coaches discussed the need to remain focused on the athlete's needs as an Olympic coach. Specifically, coaches felt that "sharing the same goal", "making life easier for the athlete", and being "prepared to let the athlete take control" were important methods of demonstrating their dedication to the athlete's cause. One coach described the need to be unselfish in the following quote:

Allowing somebody else to do the competing and take the glory and be the centre of attention, I think that is an essential attribute of being a coach. Being a coach, essentially, is about giving; giving something, part of yourself, to somebody else to allow them to be successful.

5.4.1.1.5 Communication. In this lower-order theme consisting of five raw data themes, four coaches felt that communication was another factor contributing to successful coaching performance at the Olympic Games. Coaches reported that "knowing what to say and when" and being able to "communicate on the athlete's level" were essential attributes for a coach to possess. One coach described how being an effective communicator was important for him:

It's absolutely about tailoring the communication between the athlete and the coach in a form which is mutually acceptable to both parties. You have to use a communication style which is appropriate to the athlete that you're working with and the message that you're trying to get over. People say to me, "I've told them four times and they still haven't listened." And I say, "if you've told them four times, and they still haven't got the message, frankly, it's because you're delivering the message wrong."

5.4.1.1.6 Focus. Four raw data themes comprised this lower-order theme. Specifically, four coaches discussed the need to remain focused on the task at hand as an important psychological attribute in Olympic coaching. For example, coaches

explained that the "ability to see the big picture" and "having a long term focus" were key to successful Olympic coaching. One coach explained this in the following quote:

Focus is about seeing the wood from the trees and being able to ensure that your time is spent on things that are going to make an impact on performance... you can be passionate about it but you shouldn't confuse effort with achievement.

5.4.1.1.7 Passion. This lower-order theme contained three raw data themes and reflected coaches' feelings that being passionate about their profession was an important attribute that would contribute to Olympic coaching performance. Specifically, three coaches discussed passion, one suggesting that "if you're not absolutely passionate about it and driven about it, it's very hard to maintain your motivation."

5.4.1.1.8 Support. Four raw data themes comprised this lower-order theme in which coaches felt that to perform successfully as an Olympic coach, they needed to be supportive of their athletes. While *athlete focus* referred to coaches remaining athlete centred in their coaching style, this lower order theme referred more to coaches' feelings that they needed to provide emotional support for their athletes. One coach suggested that "good coaches are supportive people", while another explained that,

Some athletes are very temperamental. There's a lot of highs and lows and the athletes need somebody to try and level them off a little bit, you know, try and suppress the highs and pick 'em up when things look really bad. I guess it's almost a shoulder to cry on... almost a parental figure.

5.4.1.1.9 Commitment. Three coaches explained that being highly committed was an important psychological attribute for an Olympic coach. One coach explained the importance of commitment to them in the following quote:

My view is that if you want to be an elite sports coach and you want to win at the highest level as a coach, you have to be prepared to a great extent to subjugate your entire life to that endeavour.

5.4.1.1.10 Consistency. Two raw data themes comprised this lower-order theme in which two coaches explained "being consistent with your behaviour" and "maintaining routines" were key attributes for successful Olympic coaching performance. As one coach explained,

Routines came out as really strong. I think it's just establishing clear routines. I mean it's not really psychology, it's logic really, but it is psychology because the confidence in the sailor, I think comes from having clear routines and having practised them."

5.4.1.1.11 Fun. In this lower-order theme comprising two raw data themes, coaches indicated that having a fun outlook was an important psychological attribute for an Olympic coach. Specifically, while one coach outlined the importance of "making sure there's a fun atmosphere", another explained,

I think the other thing is you've gotta have fun. I firmly believe that. All the [athletes] I've coached, they perform way better when you have fun in your routines. That always has to be placed in there and we always manage that... Just a break from the seriousness of the whole occasion.

5.4.1.2 Preparation

Coaches also described how preparation was another important component of successful coaching at the Olympics. Specifically, in this higher-order theme, 21 raw data themes were categorised into six lower order themes: strategic approach, lifestyle choices, previous experience, contingency planning, team preparation, and athlete preparation.

5.4.1.2.1 Strategic approach. Six raw data themes comprised this lower-order theme, in which four coaches described having well planned strategies for the Olympics. For example, coaches discussed the need to be "clear about goals" and "clear about roles and responsibilities" in advance of the games to facilitate successful coaching. One coach explained the need to take a strategic approach in the following quote:

It's about being clear and making sure that you're setting expectations early in terms of operational practice so that everyone understands how you're going to operate during the course of the event, what they should expect from you as a coach, and making sure you're clear about that and that you've set your processes so you can deliver that.

5.4.1.2.2 Lifestyle choices. This lower-order theme comprised comments from four coaches who felt that their lifestyle choices in the build up to the Olympics were important factors in their performance at the Games. Specifically, coaches discussed the need to maintain a "sensible lifestyle" before the event and to "conserve energy beforehand." One coach explained the need to take care of their personal preparation in the following quote:

You definitely don't want to add any more pressure to the situation so, making sure everything's sorted out in your domestic life, home life and everything, so there's not going to be any additional drama... You don't want to try and sell your house in the middle of it, or have a baby or birthday or whatever, so you just have to think about all that.

5.4.1.2.3 Previous experience. Three of the coaches interviewed felt that gaining experience in a similar environment was a valuable method of preparing for the Olympic environment, which contributed to successful coaching. Specifically, coaches described attending similar events "in terms of intensity" and "knowing what to expect" at the Olympics. One coach described gaining experience of the specific environment:

We do quite a lot of preparation work in terms of understanding the venues and doing "reccies" [sic] on the venues, and understanding the environment and the culture of the locality that we're going to so that you've got a good idea of where you're going.

5.4.1.2.4 Contingency planning. Three coaches also described planning for unexpected events as an important part of their preparation for coaching at the Olympics, as evidenced in this lower-order theme. Specifically, coaches discussed "leaving no stone unturned" in considering potential issues and situations that could arise at the Olympics:

It's about being absolutely immaculately prepared and having thought out and thought through every possible scenario that could happen, plus a few that can't happen but maybe still will. And it's just about preparation. Preparation, preparation, preparation. There is no stone that is too small to be left unturned.

5.4.1.2.5 Team preparation. In addition to athlete preparation, three coaches described their need to ensure adequate team preparation. Here, coaches discussed the need to "ensure that you're a positive member of the team", while one coach described this as an important part of "building the 'British Bubble'."

It's about making sure you're a positive member of a team. We operate as a team, but we operate as a team of individuals. It's only at the Games you come together as a team because you're not competing for places any more to get to the Olympic Games. So you suddenly become very much in a team environment and there are benefits that come from that. We're now all pulling together... you've got no challenges from the people you're trying to help; they can only make the environment better. So you have to set yourself up to be a positive member of the team.

5.4.1.2.6 Athlete preparation. Two raw data themes reflected the thoughts of two coaches who felt that preparing the athlete effectively was an important factor contributing to successful Olympic coaching. Specifically, in this lower-order theme, one coach described "optimising the environment for the athlete," while another explained that "doing more for the athlete in the build up" was also important:

You probably do more for the individual to make their life as easy as possible than you'd normally do when you're trying to develop independence and self-reliance. At the Games, that kind of goes out the window and it's more like "right, where can we make your life as easy as possible and take the pressure off."

5.4.1.3 Coping at the event

The final higher-order theme comprised responses from coaches indicating that coping with stressors at the event itself was an important factor in successful coaching performance at the Olympics. Specifically, 15 raw data themes were categorised into five lower order themes: coach specific strategies, team support, taking time out, drinking/socialising, and psychological skills.

5.4.1.3.1 Coach specific strategies. Five raw data responses reflected particular strategies for coping with the demands of an Olympic environment that were unique to particular coaches and would contribute towards their ability to perform effectively. For example, coaches reported "keeping busy", "pacing yourself", and making sure that they had as much "fun" as possible during the process. One coach also described how looking after the support staff could help him effectively cope with some of the stressors of the Olympic Games:

Some key support staff, I knew I had to manage. I could see they were about to go over the top and some of the key support staff impact on everybody... some people have skills that you absolutely need to rely on and those individuals can't crash. If they crash, it impacts on everybody.

5.4.1.3.2 Team support. In this lower-order theme, responses from four coaches described the support they received from members of the team as contributing to their own coaching performance. For example, two coaches described the need to "make sure support is in place", while another explained that "knowing you've got people standing behind you" helped them to cope with the stressful Olympic environment. One coach explained the need for team support in the following quote:

It is quite stressful. It does go on for a week. Once the event starts, you, as a coach, have very little control over it and it's really frustrating... So I do feel that whole sense of team is very important in that environment.

5.4.1.3.3 Taking time out. Four coaches explained that removing themselves from the stressful environment was a way of coping that contributed to their coaching performance. Specifically, three raw data themes reflected coaches having "down time away from the environment", "taking a step away from it", and engaging in "physical activity to clear the mind" as coping strategies. As one coach discussed,

It's six weeks we're out there for and you've just got to have moments where you just go out and get yourself out of that environment. You've got to get away from it... you've got to get some away time.

5.4.1.3.4 Drinking/Socialising. In this lower-order theme, three coaches discussed drinking with colleagues as a method of coping with Olympic stressors that would ultimately contribute to their coaching performance. For example, one coach suggested that "you make sure you go out and get [drunk] at least once during the [Olympics] and I'm not joking about that. I think you have to go out when you can and let off steam."

5.4.1.3.5 Psychological Skills. This lower-order theme contained responses from coaches that indicated psychological skills were used to cope with stress and ensure a good coaching performance. For example, one coach discussed "rationalisation", while another suggested that "maintaining routines" was an effective method for coping with Olympic stressors. Another coach explained that in order to cope with the stressors in an Olympic environment, "you've got to have faith in what your vision was the whole time you're doing the training."

5.4.2 Developmental factors

A total of 21 raw data themes gave an insight into how successful coaches had come to develop the attributes and characteristics that they felt were essential to successful Olympic coaching. These 21 raw data themes were organised into six lower-order themes: coach interaction, experience as an athlete structured CPD, personal

coaching experience, learning from sport psychologist, self-directed CPD. Again, the raw data themes are presented in Figure 5.2, with the number of coaches reporting each raw data theme offered in parentheses. The numbers of coaches cited in each lower-order theme are also provided.

5.4.2.1 Coach interaction

Five raw data themes comprised this lower-order theme, in which six of the eight coaches described the ways in which they had become successful in their own right by interacting with other successful coaches during their development. Three coaches discussed "learning from other coaches", while another felt that contact with coaches from other sports was an important part of their development. One coach explained the necessity to interact with other, experienced colleagues in the following quote:

I think that's one of the advantages of working within a team set-up where you've got multiple coaches... I might have done fifteen events for twenty years, so I've done 300 events yeah? If there are ten other coaches that have done the same, that's 3000 events worth of experience... you're able to have those discussions on the pros and cons with some of those other coaches, which is adding up to a huge amount of experience that you're able to consider.

5.4.2.2 Experience as an athlete

In this lower-order theme, six coaches explained that the experience they gained while competing as athletes helped them to develop the attributes required to be a successful Olympic coach. Specifically, one coach suggested that when coaching athletes, "you're absolutely in tune with the nuances, the subtle body movements, everything they're doing, because you've done it." Another coach explained,

I wouldn't necessarily say you needed to be an elite performer to be an elite coach. But I suppose if you haven't been in that competition environment, you can't understand the process and the thoughts and the stresses for the athletes. You have to have some experience and to have tried to go through the process of becoming a good athlete, whether you've succeeded or not.

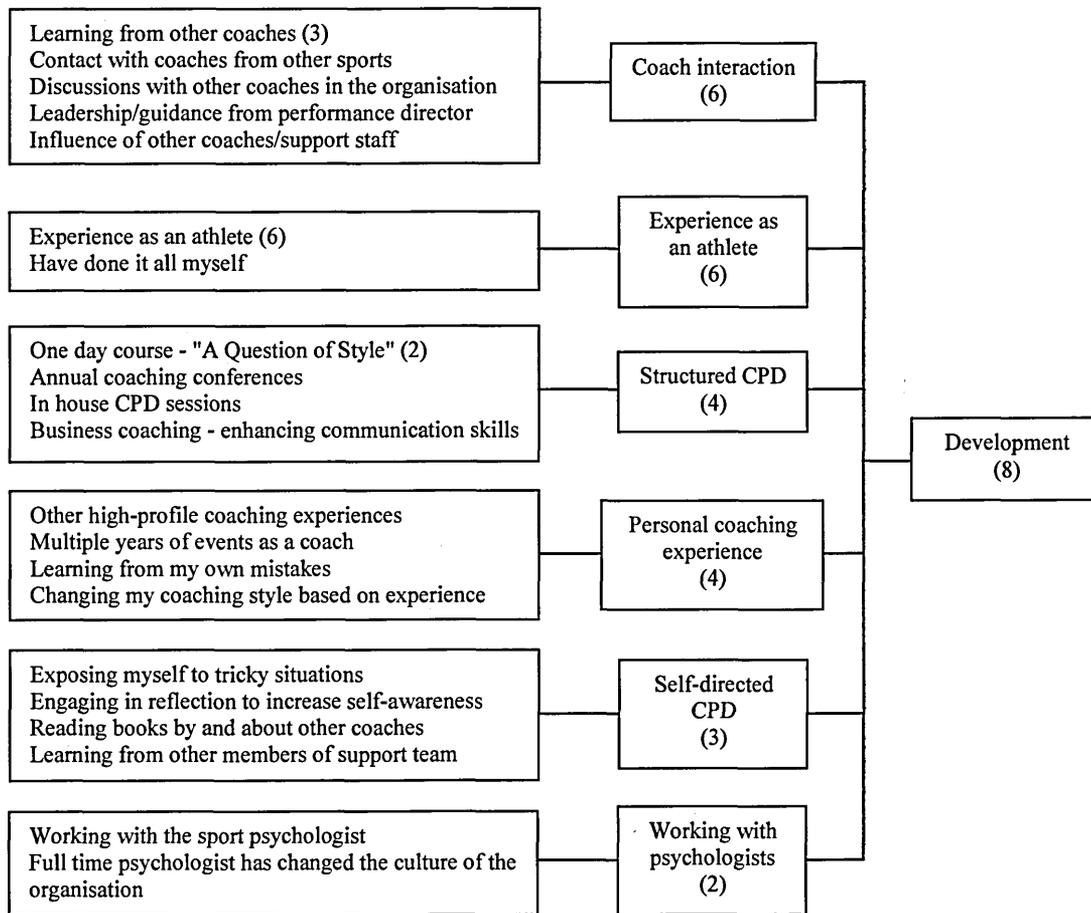


Figure 5.2 Developmental factors.

5.4.2.3 Structured CPD

Four coaches described elements of in-house professional development courses that had contributed to their becoming successful Olympic coaches. Specifically, two coaches referred to a particular course that they had attended early on in their careers, that was "particularly powerful in terms of making us think about when to have a questioning style, when to be authoritative, you know, all those different modes of operating." Another coach suggested that attending various annual coaching conferences was an important factor in his development as a coach.

5.4.2.4 Personal coaching experience

Four raw data themes comprised this lower-order theme in which four coaches described how learning from their own experiences in a coaching capacity had helped to shape them into the successful Olympic coaches they are now. For example, coaches discussed "multiple years of events as a coach" and the importance of "learning from mistakes" made while coaching. One coach explained how other high profile competitions had contributed to his development as a coach:

I think the [other event] has been good for me, you know, brought a different dimension in terms of a more corporate structure in the campaign and obviously, it's more money so it requires a different approach. There's an unlimited supply of money and funds and people. They still have the same target... but you just have a more professional approach. I think it's brought a more professional out of me.

5.4.2.5 Self-directed CPD

In this lower-order theme, three coaches described personal efforts they had made to develop their roles as coaches. For example, coaches described "reading other coaches' books and biographies" and engaging in "reflection to improve self-awareness." One coach explained how learning from other members of the overall support team was important for him: "I've worked with the strength and conditioning people, I've worked with physiologists, you know, the whole range... So just studying

and learning from other people... I learned quite a lot."

5.4.2.6 Working with the sport psychologist

Two coaches explained how working alongside a sport psychologist had helped them develop into top Olympic coaches in this lower-order theme. Specifically, one coach suggested that having a full time sport psychologist had resulted in a "change in the culture" of the programme, while another coach explained the role of the sport psychologist in the following quote:

I mean having some sort of sport psych [sic] around that you can just check in on... me personally, it's on more of a casual basis than on a continuous professional plan, but it's just having the resource available, someone who's actually trained in it and can put it into a model that might work for you.

5.4.3 Advice for coach development

The eight medal winning coaches in this study were also asked about any specific advice they had for developing coaches or for coach training and development in general. After a thorough review of the interview transcripts, 40 raw data themes were organised into eight lower-order themes and, subsequently, into three higher order themes: preparation for the Olympic environment, attitude, and education. Raw data themes are presented in Figure 5.3 (p.157), with the number of coaches reporting each raw data theme displayed in parentheses.

5.4.3.1 Preparation for the Olympic environment

In this higher-order theme coaches described how preparing for the specific demands of an Olympic environment would be important for developing coaches. Specifically, 17 raw data themes were organised into the following three lower-order themes: simulate the pressure, establish role clarity, and prepare for the unfamiliar.

5.4.3.1.1 Simulate the pressure. In this lower-order theme, responses from seven coaches reflected their beliefs that gaining experience of highly pressurised

environments would be an important aspect of coach education. Coaches discussed "putting yourself under pressure", "constantly challenging yourself", and explained how "experience in a similar environment" would be beneficial. One coach described how the constraints they experienced as a coach at the Olympics should be introduced as part of coaches' development:

At the Olympic Games, there's a very tight system of accreditation and access and rules in place that limit what people can do. At a normal event, most coaches could go into the media centre to deal with the media. At the Olympic Games, they can't. They don't have accreditation. So it's about having some restraint and practicing performing in restraint. Sometimes you can't do everything that you would like to do.

5.4.3.1.2 Establish role clarity. Five coaches discussed the need to make sure that their roles and responsibilities were clearly laid out, as evidenced in this lower-order theme. One coach described how "not taking on a dual role" was an important consideration for a developing coach, while another felt that conducting "a thorough needs analysis for the coach and the athlete" was needed to facilitate successful a coaching performance at the Olympic Games. One coach explained that developing coaches must understand the team's collective responsibilities:

We understand that we've got to be in a certain frame of mind, but we don't do any collective work to specifically pinpoint our responsibilities. You know, we have to have our emotions in check and we have to not show that [emotional response], even if we have to shut the door and have an argument behind closed doors. That's really important but we never quite defined that, we always just assumed.

5.4.3.1.3 Prepare for the unfamiliar. In this lower-order theme, four coaches discussed the need for developing coaches to ensure they were prepared as much as possible for what would be an unfamiliar environment. Specifically, seven raw data themes reflected aspects of coaching that coaches felt might present a novel challenge to their less experienced colleagues. For example, two coaches discussed "dealing with the media", while another regarded "major health issues and accidents" as something

that inexperienced coaches might not be prepared for. One coach described "intra team relationships", and another coach explained how working as part of an Olympic team could be unfamiliar to a developing coach:

We work within a big team at the Olympics, whereas right until that point, you're in pretty small cells, smaller units, so you have to deal with a lot more people around. Some of them you may not like, some of them you do and there's obviously little groups forming up and so on... to work out beforehand in your head the sort of dynamics of the big group as opposed to the little group you're operating in, and then make a plan as to how you might deal with that... I think those would have been good things to do. They would have been helpful.

5.4.3.2 Attitude

Coaches also described the underlying attitudes towards coaching that they felt were necessary considerations for developing coaches. Specifically, in this higher-order theme, 15 raw data themes were categorised into three lower-order themes: humility, athlete centred, and immersion in the process.

5.4.3.2.1 Humility. Seven raw data themes comprised this lower-order theme in which six of the eight coaches suggested that maintaining a humble and modest attitude was an important thing for developing coaches to take into consideration. Specifically, two coaches suggested that "knowing the limits of your professional competency" was important, while another two felt that "knowing where to go for help" was vital for a developing coach. One coach suggested that it was essential to "understand the commitment involved, and another coach explained that developing coaches must remain open to learning:

Don't believe that you have got all the answers. The athletes have got all the answers and it's really for you to get those answers out of them. And to do that, you've got to be completely open to learning.

5.4.3.2.2 Athlete centred. Four of the eight coaches interviewed suggested that developing coaches should ensure they remain "athlete centred" at all times. Specifically, in this lower-order theme, one coach described the need to be "honest and open" with athletes, while one suggested that developing coaches should be prepared to "match the expectations of athletes with what they're going to find when they get to an event." Another coach explained the benefits of remain athlete focused:

I think the biggest thing is, first of all, to sit down and have a real good chat with your athlete, have a great conversation with them, ask them what they want, what they require, what they need to get the best out of them, and how they think your relationship can work, because then you're gonna know where they're coming from straight away.

5.4.3.2.3 Immersion in the process. Three coaches suggested that developing coaches should focus on the process and the detail of implementing their strategy in order to develop into a successful coach at the Olympic level. One coach described what this meant in the following quote:

You've decided what you want to achieve, you've decided how you're going to do it, and it's about making sure you carry out the "how" with attention to detail such that you think about it beforehand, you prepare appropriately, you deliver to a high quality to increase the likelihood of having a better or more valid outcome that's going to affect results.

5.4.3.3 Education

In this final higher-order theme, coaches underlined the importance of education and interaction between coaches for developing high quality world class coaching. Eight raw data themes were organised into two lower-order themes: coach contact, and education in psychology.

5.4.3.3.1 Coach contact. Responses from five coaches comprised this lower-order theme. Specifically, five raw data themes suggested that coaches believed formal and informal contact with other experienced coaches was particularly important for developing coaches. For example, one coach discussed "putting new coaches in [a

situation] with experienced coaches", while another said that developing coaches should "try and seek out a mentor." One coach explained the need for contact with other coaches in the following quote:

If you can formalise that contact in the build up to big events, then I think that makes life easier... Whether you want to call it mentoring or not, I probably wouldn't, but having the experienced coaches there who aren't threatened by people asking questions... they need to be secure enough that they can honestly answer questions from less experienced colleagues.

5.4.3.3.2 Education in psychology. Three coaches discussed the importance of developing coaches learning about psychology, as evidenced in this final lower-order theme. Specifically, one coach felt that "education on communication and learning styles" would benefit less experienced coaches, while another suggested that "understanding the psychology of human behaviour" was essential for developing coaches. One coach also explained that:

I think [psychology] needs to be presented in a hands-on way. It needs to be presented by a coach. I'd be quite interested to hear of the psychology involved in all the gold medal winners of all related sports... what did they do, how did they feel, what were their strategies? ...that's the sort of thing I'd find very interesting.

It's been more the coaches that have brought a bit of psychology to some of the lectures that I've found interesting, but the actual lectures from psychologists, I haven't been able to get anything out of them. They're too theoretical I suppose.

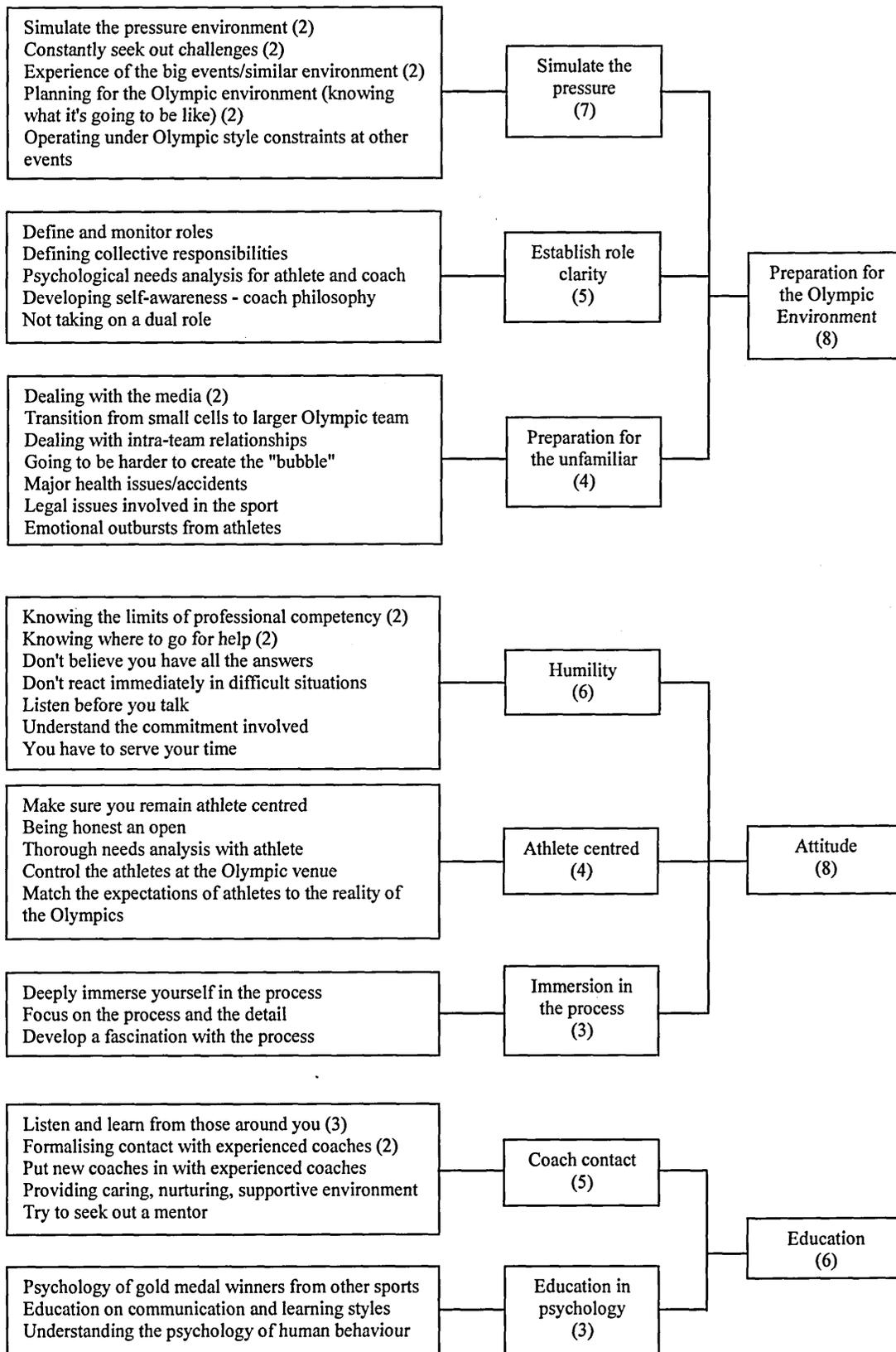


Figure 5.3 Training and development strategies

5.4.4 Role of the sport psychologist

While all coaches indicated that they had worked with a sport psychologist in some capacity, their views on the role of the sport psychologist varied. Four coaches specifically mentioned the sport psychologist as a resource for helping to cope with the pressure and potential stress of the Olympic competition environment. However, four of the eight coaches also suggested that the work of the sport psychologist should be done in preparation for the Olympics and that their role at the Games themselves was limited. Somewhat echoing this, one coach felt that by the time coaches reach Olympic standard, they should not really need a sport psychologist and that the sport psychologist's role should be to work with the athlete, rather than the coach.

5.5 Discussion

Sports coaching, particularly at the world class level, has consistently been identified as an occupation associated with stress (Olusoga et al, 2009; Taylor, 1992). Given the important roles that coaches perform, influencing the performance of their athletes, and contributing to their athletes' overall sporting experience, the purpose of the present study was to identify the factors that influence successful coaching in a highly demanding environment. The ways in which elite coaches had developed the psychological attributes they felt made them successful at the highest level were also discussed in detail, and coaches gave specific advice for the training and development of other coaches.

While exploring mental toughness per se was not an aim of this study, in discussing the factors influencing successful coaching under pressure, coaches identified 11 key psychological attributes while discussing the factors that influenced their ability to coach under pressure. The findings of the present study lend support to a series of studies by Gould and colleagues (Gould et al., 1999; Gould, Guinan, et al.,

2002; Greenleaf et al., 2001), in which coaching factors that influenced team performance and coaching effectiveness were discussed in detail. Specifically, coaches in the present study underlined the importance of being able to communicate effectively with athletes, remain athlete focused, maintain consistency of behaviour, and offer emotional support for athletes.

In addition to those factors outlined previously by Gould and colleagues, coaches in the present study also explained the importance of confidence in their own ability. It is well established that confidence is a vital component of athletic performance (cf. Hays, Thomas, Maynard, & Bawden 2009) and that an athlete's confidence can be fragile in the Olympic environment (Gould et al., 1999). Further, in athlete populations, confidence has been linked to more successful coping efforts (Cresswell & Hodge, 2004) and the positive interpretation of pre-competitive anxiety symptoms (Jones et al., 1993). In short, "confident individuals tend to be more skilled in using cognitive resources necessary for sporting success" (Hays et al., 2009, p.1185). The findings of the present study provide evidence that confidence is as vital for coaches as it is for athletes operating in a world class sports environment. These findings seem particularly important given that a loss of confidence has been cited by coaches as an effect of the stressors involved in world class sports coaching (Olusoga et al., 2010). While further research investigating the role of confidence in coaching performance certainly seems warranted, from an applied perspective, the development and protection of coaches' confidence might form an important part of mentally preparing coaches for the rigours and demands of coaching under pressure.

It is clear that coaches felt preparation was essential for a successful coaching performance in terms of developing support networks, and planning strategically for competition. While Greenleaf et al., (2001), suggested that lack of "focus on the team" from the coach influenced the performance of Olympic athletes, the successful coaches

in the present study also discussed the need to prepare the whole team and develop a collective sense of "team". In particular, coaches felt that creating "the British bubble" and a team identity was one way of working towards a successful team performance, suggesting that "if [the athletes] feel like you've got their back, they feel like you're sharing the same vision, then, you know, that confidence is mighty powerful indeed." However, in addition to this team focused preparation, coaches also indicated that a level of personal preparation was also vital in the facilitation of a successful coaching performance in a highly pressurised environment. Specifically, coaches referred to conserving energy before the Games and leading a healthy lifestyle so that their energy levels were sufficient for a physically and mentally demanding competition environment. Loehr (2001) suggested that the peak performance of leaders and managers might be underpinned by their physical, as well as their spiritual, emotional, and mental capacity. While the focus of physical preparation is usually on the athlete leading up to competition, the physical well-being and preparation of the coach for significant events is certainly worthy of consideration.

Taken together with findings from previous research, the above findings clearly indicate that in order to perform successfully under pressure, coaches would benefit from mental preparation and development of psychological skills and attributes prior to significant, pressure-filled events. While other authors have suggested that having clearly defined coaching roles, knowing what to expect, developing the ability to stay focused, handle crises, and stay cool under pressure, holding realistic expectations, and having a clear performance plan are all essential aspects of Olympic preparation for coaches (Gould & Maynard, 2009), the present study provides further specific areas that warrant attention. According to athlete research, confidence has an impact on areas such as coping effectiveness, emotional control, and communication, and it seems clear that developing and maintaining confidence in coaches prior to important competition is

just as important. Further, coaches' lifestyle choices and personal preparation can have an impact on their performance at competition and are further areas that should be addressed during the preparation phase. However, this study went beyond previous research and explored, not only the factors influencing success but also the ways in which coaches might best develop the strategies and skills required for coaching under pressure.

5.5.1 Coach development/practical implications

Within research undertaken from a developmental perspective, there are a number of consistent findings regarding the profiles of sports coaches. Across team and individual sports at various levels, coaches' experiences as athletes are an important part of their development, as is frequent discussion with peers (Gilbert et al., 2006; Gilbert, Lichtenwaldt, Gilbert, Zelezny, & Côté, 2009; Lynch & Mallet, 2006). This is supported by the findings of the present study in which "coach interaction" and "experience as an athlete" were the two most cited lower-order themes within the higher-order theme of development. However, while extant research literature suggests that comparatively little time appears to be spent engaging in coach development activities and CPD (Gilbert et al., 2009), another emergent theme in the present study was "structured CPD" indicating that these successful coaches did appreciate the importance of formal coach education. One current debate within the research literature concerns the relative benefits of formal and informal coach education for the development of coaches (cf., Mallett, Trudel, Lyle, & Rynne, 2009). While it has been previously suggested that formal coach education programmes might not necessarily cater adequately for the needs of coaches (e.g., Nelson, Cushion, & Potrac, 2006; Trudel & Gilbert, 2006), there is evidence to suggest that formal coach education settings are actually desired by coaches. For example, developmental level coaches in Canada

indicated that they would prefer to gain more of their coaching knowledge from formal settings (Erickson, Bruner, MacDonald, & Côté, 2008).

While access to frequent and informal discussion with coaching peers is important in the development of coaches (Bloom, Durand-Bush, & Salmela, 1997; Nash & Sproule, 2009), this should not undermine the importance of formal coach education. Indeed, coaches in the present study described both formal and informal aspects of their own education that were crucial in their development as elite coaches. In terms of the structured CPD and formal coach education available, two coaches referred to a specific course on leadership styles that they had attended during the early stages of their careers as being particularly memorable, influential, and beneficial for them. However, while coaches explained that attending coaching conferences and the various courses accessible to them was important, it emerged that the opportunity to interact with and learn from other coaches seemed most valuable. These findings lend support to occupational psychology research suggesting that social networking can facilitate continuous learning and enhance occupational expertise (e.g., Cheetham & Chivers, 2001; Evers et al., 2011). Outside of the sporting arena, Ericsson, Prietula, and Cokely (2007) also suggested that the experts of the future require different kinds of teachers during different stages of their careers. Although mentoring has been posited as a vital aspect of coach development (Bloom et al., 1997), other studies have suggested that for established "expert" coaches of elite athletes, mentoring is not useful for them in their current situation (Nash & Sproule, 2009). Coaches in the present study tended to agree, suggesting that while coach interaction was important for their own continued development, mentoring might be more relevant for the development of younger, less experienced coaches.

From a social-cognitive perspective on group functioning (Eccles & Johnson, 2009), the sharing of existing knowledge and the communication of information are two

important aspects of competition preparation that are reflected by coaches in the present study. There seems little doubt that providing opportunities for coaches to interact with each other and allowing them to learn from experience are essential for successful coach development. However, an interesting point that was also raised in the present study was that experienced coaches must be willing to share their experiences and be open and honest about their own practices in order for other coaches to benefit. Experienced coaches suggested that they still benefit from the wealth of experience available within the organisation (and from contact with coaches from other sports). However, the challenge for practitioners seems to be whether or not it is possible, as one of the coaches in this study suggested, to "formalise the informal aspect of coach education." Reade, Rodgers, and Spriggs (2008) found that coaching clinics/seminars and other coaches were the two sources most likely to be consulted by high-performance coaches seeking new ideas. It was also suggested that coaching clinics/seminars were rated so because coaches at this level were nearer the top of the "knowledge pyramid" and therefore found other coaches to be a more limited source. However, in light of the present study's findings, it is essential that experienced coaches become aware of how much they can contribute to the development of their less experienced colleagues, and are encouraged to do so. In addition, the level of coaches should be carefully considered in the design and implementation of any mental skills training programme for coaches.

Within the present study, even though coaches varied in the benefit they personally derived from working with a sport psychologist, the importance of sport psychology education for coaches was widely acknowledged. For example, emotional control, confidence, communication, and focus all emerged as psychological attributes that coaches felt were important for successful coaching in an elite, Olympic environment, and a number of coaches specifically commented on the benefits that

having a full time sport psychologist working with the organisation had brought. Again though, the presentation and packaging of this aspect of coach education was seen as the important factor and is the challenge for practitioners. Coaches commented on their preference for less theoretical, more hands-on psychology, and the importance of learning from other coaches who have enjoyed success at a world class level was again underlined.

Despite the importance clearly afforded to psychological attributes in coaching, the coaches' perceptions of the sport psychologist and his or her roles, however, were somewhat mixed. While some coaches felt that the psychologist played an important role in supporting them as coaches before and during events, there was still a perception from half the coaches that the sport psychologist should predominantly be working with and for the athlete, rather than the coach. As one coach stated, "I'd never go to the psychologist and say, 'I'm not feeling confident', or anything like that because it just isn't in my nature. And I think if you're at that stage, you're probably not a top coach." Another of the coaches alluded to the fact that they had never felt the benefit of having a sport psychologist working with the organisation. As such, while there is still a place for the sport psychologist, recognised by the elite, successful coaches in this study, the difficulty lies in presenting and packaging sport psychology in a way that coaches feel is actually beneficial for them.

5.5.2 Strengths and limitations

The training and development of coaches is vital to improving the quality of sports coaching. This study drew upon the experiences of some of the most successful UK-based Olympic coaches to identify the factors that influence successful coaching in a high pressure environment. While it is encouraging that the findings echoed previous literature in the area (e.g., Gould & Maynard, 2009), coaches in this study described not only the psychological attributes deemed important for successful coaching, but also

discussed areas of personal preparation that were important for a successful coaching performance. Further, these experienced coaches discussed the methods by which they had developed their own attributes and strategies for coping with pressure, and suggested ways in which enhancement of coaches' training and development could be achieved. These findings have important implications for sport psychology practitioners and coach education programmes. Specifically, as with the development of mental toughness in athletes, a coach's developmental environment might play an important role in their ability to perform effectively under pressure during their careers.

While the findings are of importance for applied sport psychology practitioners, they must be interpreted with caution. One potential limitation of the study was the narrow sample used. Specifically, while the coaches who participated were highly successful, the fact that they were all male (and from one sport organisation) might have had bearing on the qualities and attributes perceived as being important for success. It is also possible that coaches in this study were reporting the psychological attributes, and coping and preparation strategies that they perceive they possess, rather than those they perceive as being important for success regardless of whether they display them or not. To the author's knowledge, only one study has investigated the psychological characteristics of male and female coaches (Kidd, 1979), and found no significant differences between genders on authoritarianism, desire to win, traditionalism, materialism, or preference of teaching style. This is perhaps an area that requires further investigation. Also worthy of discussion here is the fact that there were no female coaches in this sample of some of the UK's most successful coaches. While study one (Chapter III) discussed the fact the perceptions of stress in the workplace vary between genders (Antoniou et al., 2006; Thompson et al., 2006), Kilty (2006) discussed in detail, the barriers to professional development (e.g., unequal assumption of

competence, homophobia, lack of mentors, differentiated hiring standards) that female coaches must face and overcome.

5.6 Conclusions

Quinlan (2002) suggested that coaches value experience and the practical knowledge gained from experience and from other coaches, over and above knowledge gained from sport science research. The major purpose of this study was to uncover and explore the experiences of a sample of the most successful Olympic coaches in the UK, paying particular attention to the factors these coaches feel impact upon their ability to perform under pressure, and the ways in which they have developed these skills and strategies. Medal winning coaches identified a range of psychological attributes that could potentially form the basis of a psychology coach education programme. While coaches outlined the importance of possessing and enhancing these attributes and the ability to manage stress and pressure, their attitudes towards and perceptions of sport psychologists were often contradictory. From the interviews, the importance of informal education and interaction with other coaches was highlighted as a particularly important part of coaches' development.

The content of coach education programmes is often directed towards promoting athletic achievement, and such programmes usually contain modules aimed at developing coaches' abilities to communicate effectively with athletes. However, coaches are now considered to be performers in their own right and the potential negative effects of coaching stress, not only for coaches themselves, but also for their athletes, have been identified. While it is clear that coping under pressure is an important factor in successful coaching, the range of strategies cited by these experienced coaches, is suggestive of the fact that preparation is perhaps even more important than possessing "portable" psychological skills to utilise at the event itself.

For example, coaches reported the need to ensure that they had established support networks and relying on previous experience. However, only two coaches reported using "psychological skills" as described by Hardy et al. (1996) and by Eccles et al. (2011). In addition, in describing their perceptions of the role of the sport psychologist, coaches in this study further highlighted the need for extensive preparation.

Specifically, as one coach described, "it's not about the environment, it's about preparing the ground well before. So with the sport psychologist, I think the whole emphasis of that training should be on Games preparation a long way out." Again, from an applied perspective, it seems important that coaches are mentally (as well as physically and practically) prepared for the challenging environment of high pressure competition. Thus, it is important that coach education and development should take into account the recommendations of the successful Olympic coaches outlined in this study. Taken together with the findings of previous research studies, it appears that the presentation of psychological skills and, indeed, stress management techniques, for coaches, along with the development of key psychological attributes appears central to continued success. However, from the perspective of the applied sport psychology practitioner, the challenge lies in the delivery of sport psychology for coaches in a manner that coaches find appealing and engaging.

The ability of coaches to address stressors in a positive, constructive manner may influence significantly their coaching performance and own physical and mental health.

(Taylor, 1992, p.37)

CHAPTER VI

Study Four

Development and Evaluation of a 'Coaching under Pressure' Mental Skills Training Programme for Sports Coaches.

6.1 Introduction

In the previous chapter (study three), eight coaches from one of Great Britain's most successful Olympic teams were interviewed in order to identify the factors associated with Olympic coaching success (Olusoga et al., 2012). While studies one and two (described in Chapters III & IV respectively) outlined the overall stress experiences of world class coaches, study three (Chapter V) explored the ways in which the most successful coaches cope with the demands of an Olympic environment and work effectively under pressure. Olympic coaches discussed a range of vital psychological attributes, as well as specific areas of preparation and coping at the event that are essential for successful coaching in a high pressure environment. Within athlete populations, Mental Skills Training (MST) has been shown to be an effective way of enhancing the performance of athletes in pressurised and stressful competitive settings (Savoy, 1993; Thelwell & Greenlees, 2001). While there is a wealth of literature to suggest that systematic MST can have a positive impact on athletic performance (e.g., Hanton & Jones, 1999; Patrick & Hrycaiko, 1998; Thelwell & Greenlees, 2003), there is little evidence of such programmes existing for sports coaches, despite the fact that coaches are considered performers too.

The study described in this chapter involved the development, implementation, and evaluation of an evidence-based MST intervention programme, based upon the findings of studies one, two, and three, and aimed at enhancing coaches' ability to coach under pressure. The following section will explore pertinent research literature surrounding the use of MST and stress management interventions for sports performers. A detailed description of the development of the workshop programme and the theoretical rationale underpinning the content will be provided in the methods section of this chapter.

6.1.1 Mental skills and stress management for sport performers

Competition and organisational stress has long been an issue for applied sport psychologists working with sports performers, and this is reflected in the amount of research literature dedicated to the development and evaluation of MST training packages and interventions (cf., Brewer & Shillinglaw, 1992; Daw & Burton, 1994; Gordon, 1990; Hall & Rodgers, 1989; Hanton & Jones, 1999; Patrick & Hrycaiko, 1998; Thelwell & Greenlees, 2001; 2003; Savoy, 1993; Shoenfelt & Griffith, 2008). The general consensus is that psychological factors play an important role in success and that systematic mental skills training can enhance performance (Daw & Burton, 1994).

Brewer and Shillinglaw (1992) evaluated the effectiveness of a psychological skills training workshop for 49 intercollegiate male lacrosse players. Four 30-40 minute workshops (goal-setting, relaxation, imagery, and cognitive restructuring) were held over a two week period and findings suggested not only that participants' knowledge of psychological skills improved, but also that they placed more importance on these skills and used them more frequently after the intervention. Daw and Burton (1994) used case studies to assess the effectiveness of a MST intervention aimed specifically goal-setting, imagery, and arousal regulation for collegiate tennis athletes and again found improvements on several cognitive and performance variables (including state and trait

measures of confidence and anxiety). Similarly, Hanton and Jones (1999) demonstrated that swimmers' directional interpretation of anxiety symptoms became more facilitative following an MST intervention focused on goal-setting, imagery, and self-talk.

Using a single subject design, Thelwell and Greenlees (2001) explored the effectiveness of a MST package on gymnasium triathlon performance. Rather than delivering workshops to groups of participants, the MST package (including goal-setting, relaxation, imagery, and self-talk) was delivered on a one-to-one bases over a 4-day period. Results again demonstrated the efficacy of the MST, with all five participants increasing their use of mental skills and improving their triathlon performance. More recently, Shoenfelt and Griffith (2008) also demonstrated that MST might be useful for improving specific elements of performance. Their MST programme, delivered to participants in eight 1-hour sessions over a 2-week period, included relaxation, goal-setting, imagery, attentional focus, behavioural modelling, and pre-performance routines, and was aimed specifically at improving service accuracy in a group of 11 intercollegiate volleyball players. While results demonstrated that the MST intervention appeared generally to have a positive impact, the specific skills of imagery and the use of pre-performance routines were positively correlated with higher percentage of accurate serves.

Taken together, these findings certainly indicate that MST can have a beneficial impact on performers' awareness, knowledge, and use of psychological skills, as well as their performance in competitive situations. Indeed, there is a wealth of literature regarding the use of mental skills to enhance athletic performance and modify athletes' perceptions. Sports coaches too, must be able to manage stressors and perform their roles when under pressure, a fact reflected in the current glut of research exploring the stress experiences of coaches at various levels (e.g., Frey, 2007; Thelwell et al., 2008b). Taylor (1992) commented on the "growing concern" over stress in sports coaching (p.27)

and outlined a 5-step process for developing stress management interventions for coaches (see Figure 6.1). After identifying the stressors that coaches encounter and the symptomology (i.e., the ways in which coaches respond to stress), Taylor advocated the use of cognitive, behavioural, and emotional/psychological coping skills with coaches, including relaxation training and cognitive restructuring. However, while it has been well established within this thesis, and in other contemporary research, that coaches at various levels should be considered as performers in their own right, and that they experience a considerable array of stressors within their coaching roles (Fletcher & Scott, 2010), there is a paucity of research detailing the development or evaluating the effectiveness of MST for coaches.

6.2 Study Aims

While the focus of the thesis has been on stress and coping in world class sports coaching, it is imperative to note, once again, the individual nature of the stress process. At the sub-elite or amateur level, the stressors that a coach experiences might well elicit a similar scale response to that of coach in a gold medal race at the Olympic Games in terms of personal impact and relevance. The coaches in study three (Olusoga et al., 2012) discussed the importance of training and development for coaches on the pathway to elite sport. Indeed one coach specifically explained that, "if we really want to lay the foundations for long term success in sport, then we have to take the education of our coaches more seriously." The purpose of this study was to use the information garnered from successful Olympic coaches (study three) to design an intervention package aimed at helping coaches on the pathway to elite sport coaching to develop the skills, attributes and elements of preparation that had helped experienced coaches achieve success in a highly pressurised environment. As such, national league standard coaches from one of Great Britain's most successful sporting universities (based on British Universities & Colleges Sport (BUCS) rankings) served as participants for this intervention study.

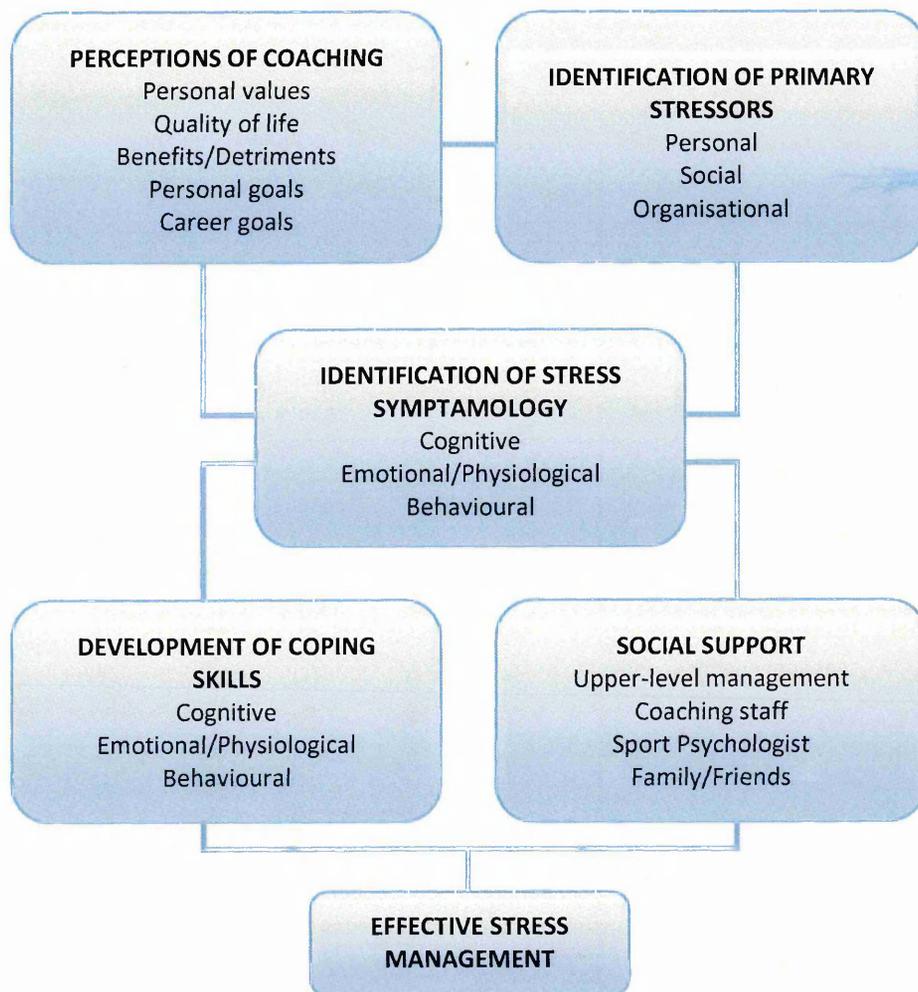


Figure 6.1 An applied model of stress management for coaches (Taylor, 1992)

Based on the findings of study three (Olusoga et al., 2012) the MST intervention programme was designed to help coaches operate successfully and effectively when under pressure. Specifically, a series of six workshops was developed, aimed at encouraging coaches to utilise various psychological skills, and targeting areas deemed essential by the highly successful Olympic coaches interviewed in the previous study (e.g., emotional control, communication, confidence). While researchers have illustrated the efficacy of mental skills such as goal-setting (Ward & Carnes, 2002), imagery (Shambrook & Bull, 1996), relaxation (Bull, 1989), and positive self-talk (Hatzigeorgiadis, Zourbanos, Mpoupaki, & Theodorakis, 2009), Blakeslee and Goff (2007) suggested that combining skills into comprehensive MST "packages" might be advantageous, particularly in a group setting. Indeed, several researchers have demonstrated the effectiveness of multimodal intervention packages that have combined several psychological skills (e.g., Brewer & Shillinglaw, 1992; Gould, Petlichkoff, Hodge, & Simons, 1990; Hall & Rodgers, 1989; Kirschenbaum & Bale 1984; Seabourne, Weinberg, Jackson & Swain, 1985; Thelwell & Greenlees, 2001; 2003). Thus, the approach taken within this study was to combine several mental skills into a six week intervention "package", the development of which is described in the next section. A fundamental tenet of applied sport psychology is the need to use appropriate methods to evaluate applied practice (Andersen, Miles, Mahoney, & Robinson, 2002; Vealey, 1994). As such, an evaluation of the Coaching under Pressure workshop programme, involving quantitative and qualitative measures was also undertaken (see section 6.4, p.185, for further detail).

6.3 Workshop Development¹

The intervention programme presented in this study was pre-determined by existing research literature. Specifically, the major themes were developed from the findings of studies one, two, and three of this thesis (Chapters III, IV, & V) (see fig 6.2, p.177, for an overview of the workshop content). In effect, these studies allowed a group of experienced and highly successful coaches to identify several "areas for improvement" that they perceived as being particularly important for other coaches (e.g., confidence, emotional control, communication).

6.3.1 Approaches to delivery

A combination of different approaches was taken by the Sport Psychology Consultant (the author of this thesis) in the delivery of the workshops. Specifically, an educational approach was taken in order to briefly present the findings of the previous three studies to the participating coaches to provide a rationale for the workshops and the themes that had been identified as important for them. Further, one of the aims of the programme was to educate coaches about the various psychological skills that they could use (e.g., cognitive restructuring, relaxation) and to provide examples of how these skills can result in improved performance.

A cognitive-behavioural framework (behaviour being influenced by and influencing thoughts, feelings, and the perceived consequences of behaviour) also influenced the delivery of the intervention. This approach typically involves understanding the concerns of the client (e.g., I get nervous before an important competition), while exploring their thoughts (e.g., positive and negative expectations) and behaviours (Andersen, 2000). For example, in Session 1 (See Appendix G) coaches were encouraged to think about how their stress related thoughts and feelings might

¹ Presentation slides and exercises for all workshops can be found in Appendix G

influence their subsequent behaviours in either positive or negative ways. From a cognitive-behavioural perspective, coaches were encouraged to explore these stress related thoughts (e.g., Session 3) and challenge the negative thoughts.

While the general themes for each session were pre-determined, it was essential that the Sport Psychology Consultant (SPC) also adopted a client-centred approach. Coaches were allowed and, indeed, encouraged to discuss and explore relevant issues that were of significance to them as individuals and as a group. As such, to ensure that the workshop content was relevant for them, coaches were reminded and encouraged throughout each workshop to explore their personal experiences of coaching in general, as well as of stress and its influence on their thoughts and behaviours.

6.3.2 Applied Relaxation

Suinn, (2005) argued that athletes can experience anxiety through three response domains: the autonomic-physiological (e.g., heightened autonomic arousal, distress), the somatic-behavioural (e.g., muscular tension, impairments in motor coordination), or the cognitive-affective (negative thoughts, concentration disruption, worry). Coaches too have demonstrated that physiological as well as cognitive-behavioural symptoms can be experienced as responses to stress (Olusoga et al., 2010). Davidson and Schwartz's (1976) "multi-process" theory of relaxation and anxiety, or "matching hypothesis", suggested that cognitive relaxation interventions would be more effective at reducing debilitating cognitive anxiety, while relaxation treatments might be more effective for alleviating somatic symptoms.

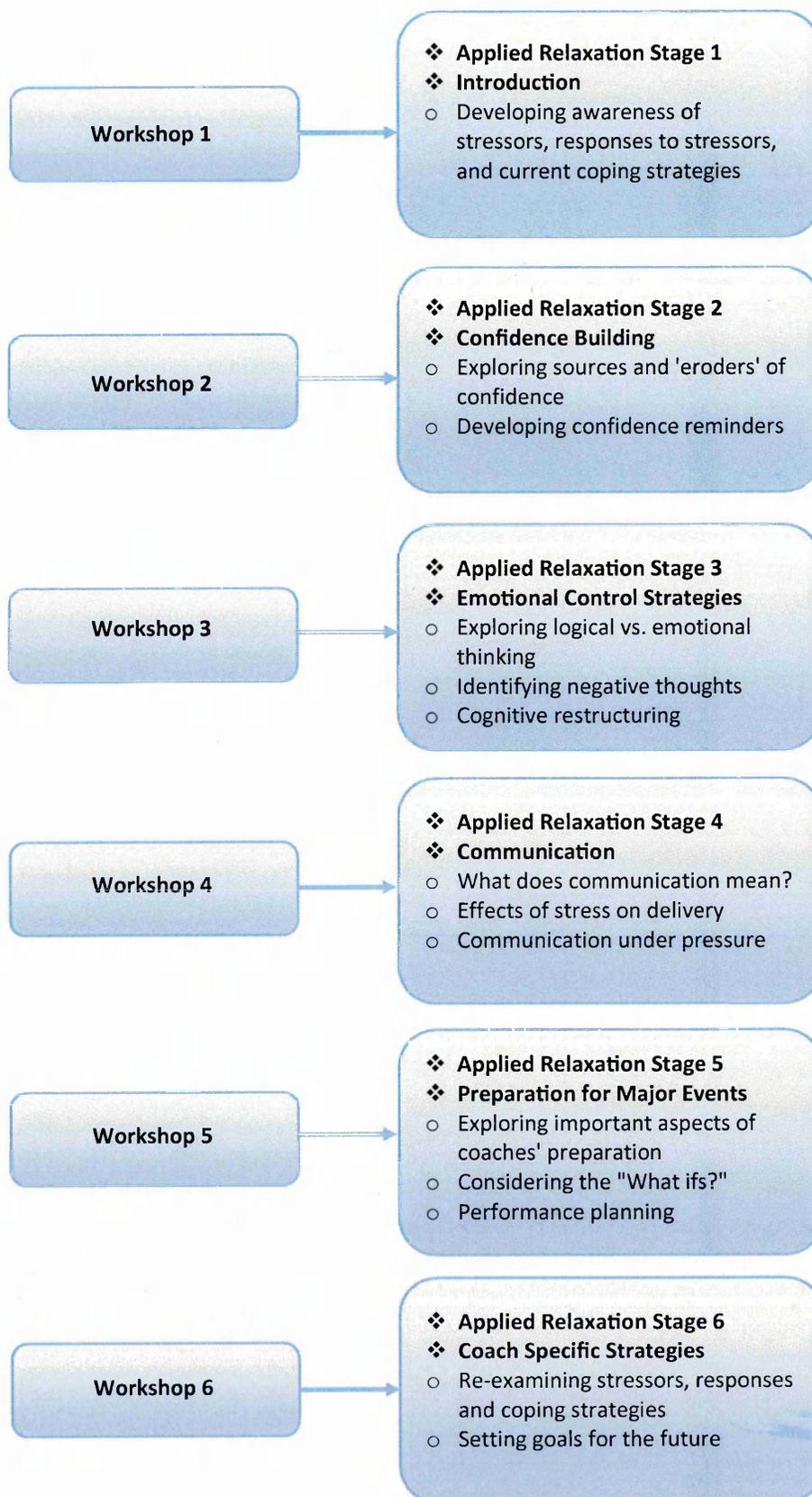


Figure 6.2 Overview of the Coaching under Pressure workshop programme

Maynard and Cotton (1993) found support for this matching hypothesis with a relaxation intervention resulting in a 32.7% reduction in somatic anxiety (compared to a 16.7% reduction after a cognitive treatment), and a 31.9% reduction in cognitive anxiety following a cognitive intervention (compared to a 13.8% reduction following an Applied Relaxation (AR)/somatic intervention). While support for the matching hypothesis was found, it was also evident that a crossover effect was present. Specifically, techniques aimed at reducing cognitive anxiety also facilitated a significant, though smaller, reduction in somatic anxiety, and vice versa. As coaches had described a combination of somatic and cognitive responses to their stress experiences in study two (Olusoga et al., 2010), and because relaxation strategies have been linked with an increased ability to concentrate on task-relevant processes (Hanton & Jones, 1999), it was deemed important that cognitive and somatic relaxation strategies should form part of the MST intervention.

To address this, coaches were taken through a six-stage programme of Applied Relaxation (AR) spanning the duration of the intervention period and underpinning the cognitive strategies that formed the basis for each workshop (see Appendix H). Each stage of AR was explained to coaches during the workshops and they were also given instruction on how to practice. Coaches were asked to complete a relaxation diary, which, although not used as a measure in the evaluation of the programme, acted as an adherence strategy for coaches. During each workshop, time was dedicated to allow coaches to feedback on their experience of AR, discuss any problems or issues, and for the SPC delivering the workshops to explain the subsequent stage.

6.3.3 Session 1- Introduction/AR Stage 1

The first workshop provided coaches with an introduction to the programme, consisting of a brief presentation of the background research literature (Olusoga et al., 2009; Olusoga et al., 2010; Olusoga et al., 2012). Coaches had been made aware of the

workshop content via a Participant Information Sheet (see Appendix K), and had subsequently agreed to take part. It was assumed that their voluntary participation indicated an appreciation that the identified workshop themes were of importance to them in their coaching roles.

Ravizza (2010) suggested that in order to gain mastery over stress, performers must become more aware about how stress affects them. While providing examples and evidence from research of the potential sources of strain and responses and effects of stress for world class coaches, the aim of the first session was to allow coaches to develop awareness of these factors in their own experiences. Further, establishing coaches' individual stressors, responses, and effects of stress within a group environment, not only facilitated discussion, but also allowed coaches to take ownership of their intervention programme by targeting the stressors and responses that were particularly salient for them.

As interaction between coaches was a significant part of the programme design, coaches were encouraged to share examples from their own experience throughout. Consistent with previous literature (e.g., Olusoga et al., 2010; Thelwell et al., 2008b), the coaches agreed that athletes and management issues were particular sources of strain for each of them. Another recurring theme that coaches discussed with each other was the perceived lack of time they had to adequately perform their multifaceted roles.

As the perception of control has been cited as an important factor in performance decrements (Hardy et al., 1996; Jones, 1995), time was also spent establishing the stressors that coaches felt they had a degree of control over and those that they felt were out of their control. Several of the coaches commented that they found it hard to think of stressors that were controllable. However, the group discussion was again invaluable as coaches were able to recognise that stressors they had thought were controllable (e.g., their athletes' work ethics/attitudes) were in fact, outside of their

control. Because a feeling of control is related to a reduction in anxiety (Ravizza, 2010), coaches were encouraged to focus on and set goals to increase their level of control over the controllable stressors they had identified.

6.3.4 Session 2 - Building confidence/AR Stage 2

Earlier studies in this thesis suggested that coaches having confidence in their own ability and decision making skills under pressure is vital for successful coaching performance. Further, coaches at the elite level have reported losing confidence in stressful situations (Olusoga et al., 2010). The link between confidence and performance is well established. For example, in athlete populations, those in possession of greater belief in their own ability have reported being able to peak under pressure and an ability to cope with a variety of adverse situations (Cresswell & Hodge, 2004). Hays et al. (2009) suggested that the focus of interventions designed to augment a performer's sport confidence should reflect individual needs and should, therefore, incorporate the identification of an individual's sources and types of confidence. As such this workshop was designed to give coaches the opportunity to explore why confidence is important for them, and to identify their sources of confidence and the factors that can erode it. Further, the workshop was designed to enable coaches to develop strategies to build and maintain confidence in a highly pressurised environment.

Consistent with the findings from study two, coaches tended to agree that a loss of confidence was usually a result of what they considered to be a stressful situation. The exercises involved in this workshop encouraged coaches to develop "confidence reminders" based upon their previous accomplishments. As Bandura (1977) suggested that self-efficacy is heavily influenced by previous performance accomplishments, coaches were encouraged to remind themselves of their strengths, accomplishments, and improvements (see Appendix G for workshop material). Embracing a "psychology of excellence" described by Zinsser, Bunker, and Williams (2010), coaches were

encouraged to focus on their successes and be their own "biggest fans" in an attempt to encourage a more constructive thinking process (p.311).

The coaches commented that the session had been useful for them as the reflection they usually engaged in focused on elements of performance that could be improved on, rather than on what they did well. All coaches agreed that while exploring confidence reminders might be something that they would encourage their athletes to do, it was not something that they had done for themselves. In preparation for the next workshop (emotional control), coaches were asked to identify the typical negative thoughts that they experienced in their coaching roles.

6.3.5 Session 3 - Emotional control/AR Stage 3

The ability to remain in control of one's emotions is another psychological attribute that coaches have identified as being particularly important for coaching under pressure (Olusoga et al., 2012). According to Zinsser et al. (2010), irrational beliefs and distorted thinking underpin the stress and resultant negative thinking that performers experience, yet they are often unaware that maladaptive beliefs are the underlying cause. Building on the previous session, the aim of this workshop was to enable coaches to reflect, in greater detail, on their responses to stress and the differences between the logical and the emotional responses they might have in stressful situations. Further, coaches were encouraged to develop individual strategies that might help them control negative thinking and maladaptive emotional responses.

Self-talk has been recognised as having an influence on performance in several ways, including increasing an individual's level of self-confidence (Zinsser, et al., 2010). Indeed self-talk has been reported as one of the most widely used and effective cognitive strategies utilised by athletes (Park, 2000), and has been associated with various performance gains (Hamilton, Scott, & MacDougal, 2007). Thelwell et al,

(2008a) suggested that coaches too, use self-talk before, during, and after training and competition to help control emotions, boost confidence, aid rational thinking, increase motivation, and cope with tough situations. Cognitive restructuring is based on the premise that emotional issues are a result of maladaptive thought patterns. The purpose of this session was to give coaches the opportunity to identify negative self-statements and introduce techniques they could use to reorganise and restructure maladaptive verbal self-statements (Risley & Hart, 1986).

Once coaches were more aware of their negative thinking, their thoughts could be modified through countering. To replace negative thoughts with positive ones would be ineffective if a performer still had a strong belief in the negative statement. Countering is an internal dialogue that uses rational thinking, reason, and fact to refute the underlying maladaptive beliefs. Using the lists of typical negative thoughts identified by the coaches between sessions as a starting point, coaches found, through discussion, that many of their negative thoughts focused on issues surrounding interference from management. Coaches were encouraged to describe the evidence underpinning their negative beliefs, and then consider the evidence against the beliefs (Zinsser et al., 2010).

The psychological skill of thought stopping (Meyers & Schleser, 1980) was also introduced during this session. This technique involves using a physical or verbal trigger (e.g., snap of the fingers, saying the word "stop" out loud), to interrupt or stop the negative thought. Coaches were encouraged to devise a trigger that they felt comfortable with and to practise using it over the coming weeks. Because research has suggested that through concentrating on stopping the negative thoughts, athletes can become more preoccupied with the thought they are trying to suppress (e.g., Janelle, 1999), coaches were encouraged to see the negative thoughts as the triggers to focus on the positive self-statements devised through countering (Zinsser et al., 2010).

6.3.6 Session 4 – Communication/AR Stage 4

Again, based upon the findings of the first three studies of the thesis, effective communication has been identified as imperative for coaching under pressure. Indeed, several authors have commented on the importance of communication for the success of teams (e.g., Janssen & Dale, 2002; Martens, 2004). However, definitions of communication can be varied (Yukelson, 2010). As such, in this session, coaches explored and discussed what communication meant to them, how their methods and styles of communication might change under pressure, and the effects that this might have upon the messages they need to deliver as coaches.

Yukelson (2010) suggested that communication is a dynamic process. As such, it is likely that one style or method of communication might not be appropriate or productive in different situations. Indeed Chelladurai's (1980; 1984) multidimensional model of leadership suggested that congruency between required, preferred, and actual behaviour would be required for optimum performance and satisfaction. However, it is known that coaches behaviour and communication styles can change when coaches experience stress (Olusoga et al., 2010). Further, Horn's (2008) working model of coach effectiveness suggested that the way coaches communicate can influence the performance, attitudes, and behaviour of athletes. As such, it seems important that coaches not only consider their athletes' preferred style of communication, but how this might change during stressful periods.

During this session, coaches were encouraged to think not only about communication with their athletes, but also, based on the findings of this thesis, their colleagues, support staff, and managers. Coaches were given some examples from Olympic coaches (taken from studies one, two, & three of this thesis) of the ways in which their communication could be affected by stress and were asked to reflect on their own experiences. Specifically, coaches were instructed to think about and discuss how

their body language and the ways in which they deliver messages changes when under pressure. As part of this session, coaches were also encouraged to reflect on how other coaches and athletes are influenced by their communication style when under pressure, and what these other coaches and athletes might be expecting from them as coaches when in these stressful situations.

6.3.7 Session 5 - Preparation for major events/AR Stage 5

Effective preparation and planning has again been recognised as a significant factor in successful coaching at the highest levels (Olusoga et al., 2012), and has also been identified as a fundamental strategy for coping with pressure (Olusoga et al., 2010). Further, athletes from a variety of sports have attested to the positive influence of pre-performance routines and pre-competition plans on their ability to maintain focus on the right things at the right times (Greenleaf et al., 2001; Orlick & Partington, 1988). However, while preparing athletes for major events, coaches can neglect to prepare for their own "performance" and the demands they might face. The aim of this session was for coaches to develop a greater understanding of their own needs (physical, psychological, emotional) both in and out of competition, and to develop effective pre-competition routines appropriate for their own specific approach to competition.

Coaches were presented with examples and quotes from the medal winning Olympic coaches that took part in study three, to demonstrate the importance of various aspects of preparation (e.g., lifestyle, athlete, personal, team). Coaches were asked to consider their own performance routines and to think about whether their behaviour was consistent. This was considered important as athletes have previously suggested that coaches having pre-competition plans and maintaining consistency of behaviour during pressure situations can have a positive impact on athletic performance (Gould et al., 1999; Greenleaf et al., 2001). During this workshop, coaches were introduced to segmenting, whereby a pre-competition period is selected and broken down into smaller

time periods (e.g., team meeting, pre-warm up, warm up, team talk). Each coach developed an individualised pre-competition plan which was based around their chosen time period. As individualised pre-performance and pre-competition routines can be used to refocus attention (Williams, Nideffer, Wilson, Sagal, & Peper, 2010) coaches were encouraged to include focus cues for each segment of their plan.

6.3.8 Session 6 - Developing coach-specific coping strategies/AR Stage 6

Connecting the previous sessions together, the aim of the final workshop was for coaches to discuss and develop strategies they can use to cope effectively with the demands that are specific to their coaching roles. Coaches were encouraged to revisit the sources of stress and coping strategies they had identified during the first session and to re-evaluate the effectiveness of their coping methods. By this stage, coaches had been exposed to cognitive strategies for anxiety management such as self-talk and thought stopping, proactive approaches to stress management such as structuring and planning their pre-performance routines, and had gone through a programme of Applied Relaxation to target somatic anxiety stress responses. Finally in this session, coaches were encouraged to set and evaluate personalised goals regarding their future approach to coaching under pressure.

6.4 Evaluation of the MST Programme

The efficacy of various MST programmes for athletes has been demonstrated by several authors (see p.171). However, little research has explored the development and evaluation of such programmes for sports coaches. The first three studies of this thesis have contributed towards the development of a MST programme specifically aimed at helping coaches develop the skills and attributes required to coach effectively under pressure. Andersen et al., (2002) explained that evaluating applied practice is a

fundamental tenet of sport psychology. As such, the following sections outline the evaluation of the Coaching under Pressure mental skills training programme.

6.4.1 Participants

With institutional ethics approval², five coaches (all men) aged between 31 and 38 years (34.2 ± 2.8 years) participated voluntarily in the study. Coaches had between 7 and 18 years (10.6 ± 4.3 years) experience coaching, and represented three sports (field hockey, rugby union, and triathlon). In order for coaches to meet the specific criteria of the study they were required to hold a National Governing Body (NGB) Level 2 coaching certificate (minimum) and have coached an athlete or team in at least national league level competition in their chosen sport. In addition, four of the five coaches had coached athletes at either junior or senior international level, or in international student competition. The delivery of the workshops series coincided with the first half of the British Universities competitive season for four of the coaches. The triathlon coach had come to the end of his athletes' competitive season. No control group was included in the study due to the limited number of available and eligible participants.

6.4.2 Measures

6.4.2.1 Demographic information

The workshop registration form for coaches contained demographic information documenting their age, coaching qualifications, total number of years of coaching experience, current level of coaching, and the highest level of competition they had experience of coaching in. This registration form was included in the preliminary information that was sent to coaches prior to the start of the first workshop (see Appendix K).

² Ethics approval for study four was applied for and granted by Sheffield Hallam University, based on the study consisting of "minor procedures" (See Appendix J).

6.4.2.2 Mental Skills Questionnaire³

The Mental Skills Questionnaire (MSQ; Bull, Albinson, & Shambrook, 1996) is a 28-item self-report questionnaire designed to assess the mental skills that respondents currently use. Participants are asked to rate their agreement with a series of statements (e.g., "I suffer from a lack of confidence about my performance") by responding on a six point likert-type scale (1 = strongly disagree; 6 = strongly agree). The MSQ comprises seven subscales (*imagery ability, mental preparation, self-confidence, anxiety and worry management, concentration ability, relaxation ability, motivation*) with four statements related to each. The MSQ was modified from its original version to reflect its use here with coaches rather than athletes. Specifically, the wording of item 25 was changed from "At competitions I am usually psyched enough to compete well", to "At competitions, I am usually psyched enough to perform my coaching role well". The MSQ is used primarily as an applied tool because its psychometric properties are not as strong as a research based inventory. However, it was felt that in order to gain an understanding of coaches' current use of mental skills, the MSQ was an appropriate measure to employ.

6.4.2.3 Competitive State Anxiety Inventory-2/modified

Given the multifaceted anxiety responses described by coaches in study two, it was felt that a multi-dimensional measure of competitive anxiety would be an appropriate tool to evaluate whether the intervention programme had an impact upon coaches' cognitive and somatic anxiety, and self-confidence. Further, the intervention was designed at helping coaches develop the skills and attributes that would enable them to coach effectively under pressure (i.e., in a particular set of circumstances). As such, a state, rather than a trait measure of anxiety was required. The Competitive State Anxiety Inventory-2/modified (CSAI-2md; Jones & Swain, 1992) is a 27-item self-

³ Copies of all questionnaires used (including instructions for coaches) can be found in Appendix L.

report inventory designed to measure state anxiety in competitive situations. The CSAI-2nd comprises three subscales measuring pre-performance cognitive anxiety, somatic anxiety, and self-confidence, with nine items in each subscale. Participants are asked to respond by rating the intensity of each symptom (e.g., "I feel concerned about losing") on a scale of 1 (not at all) to 4 (very much so), resulting in subscale scores of between 9 and 36. In the original CSAI-2 (Martens, Burton, Vealey, Bump, & Smith, 1990) only the intensity of respondents feelings were assessed. However, because of the need to assess the directional interpretation of anxiety symptoms, a direction scale was added by Jones and Swain (1992). In the revised version, in addition to indicating intensity, respondents are asked to indicate the degree to which the experienced intensity of each symptom is perceived as facilitative or debilitating towards their performance. Participants respond on a seven point likert-type scale ranging from -3 (very debilitating) to +3 (very facilitative). Possible subscale scores therefore range from -27 to +27 with a positive score indicating a facilitative effect on performance.

6.4.2.4 Modified COPE

As "coping at the event" had been identified as an important factor in effective coaching under pressure (cf., study three), the intervention was designed to equip coaches with individualised coping strategies for stressors they might encounter. As such, a measure of coaches coping skills was deemed appropriate for an evaluation of the intervention. The original COPE instrument was developed by Carver, Scheier, and Weintraub (1989) because of concerns with the two-dimensional (problem- and emotion-focused coping) structure of the Ways of Coping Checklist (WCC; Crocker, 1992). The COPE inventory contained 13 subscales in total; five to measure distinct aspects of problem focused coping (active coping, seeking social support for instrumental reasons, planning, suppression of competing activities, and restraint coping), five to measure aspects of emotion focused coping (seeking social support for

emotional reasons, denial, turning to religion, positive reinterpretation and growth, and acceptance), and three other subscales (focus on venting of emotion, behavioural disengagement, and mental disengagement). The original COPE inventory was then modified to more accurately assess situational based coping in physical activity settings. MCOPE consists of nine of the original COPE scales, and three additional scales relevant to sport and based on previous research (Crocker, Kowalski, & Graham, 1995). Each of the subscales consists of four items giving a total of 48 items.

Respondents are asked to think of a situation that they have encountered and to read a series of statements about the various coping strategies that they may or may not have employed to cope with the situation (e.g., "I tried talking to someone about how I felt"). Participants indicate on a five point likert-type scale the degree to which they used that particular strategy (1 = used very little or not at all; 5 = used very much). Subscale scores therefore range from 4 to 20. A second scale of "Coping Effectiveness" is also included. Participants are asked to rate how effective they felt each coping strategy was in helping them handle the situation, again on a five point scale (1 = Extremely ineffective; 5 = Extremely effective), with subscale scores again ranging from 4 to 20.

6.4.2.5 Social Validation Questionnaire

A social validation questionnaire was administered to coaches at the completion of the workshop series. The purpose of this exercise was to gain information regarding participants' feelings towards the workshops they had completed. The questionnaire was designed to assess the importance of the study and the perceived efficacy of the intervention programme and was based on the social validation questionnaire employed in Thelwell and Greenlees' (2003) evaluation of a MST package for endurance athletes. Participants were asked to answer a series of questions (e.g., "Do you consider any changes in your coaching performance to be significant?") using a 7 point likert-type

rating scale with responses ranging from 1 (not at all significant) to 7 (extremely significant for me). They were also asked to answer a series of open ended questions regarding their perceptions of the course as a whole (e.g., "If you feel that taking part in the programme has contributed to enhancing or hindering your coaching performance, can you state why you feel this to be the case?").

6.4.3 Procedure

Coaches were recruited by contacting the Deputy Director of Sport (Coaching and Performance) at a UK University. Information about the workshops was provided and a registration form for interested coaches was also supplied (see Appendix K). Coaches were also informed that the workshop was to be evaluated as part of a research study, although it was made clear that the workshops, not the coaches, were subject to evaluation. Five coaches agreed to participate in the study and attend the workshops. Dates and times for the workshops were arranged via the Coaching Services Administrator, and were scheduled to take place weekly for a 6 week period. However, due to severe weather conditions, there was a two week break between the fourth and fifth workshops.

Before the first workshop, coaches were asked to complete a pre-workshop questionnaire pack which included the MSQ, CSAI-2md, and MCOPE questionnaires. Specific instructions were attached to each questionnaire (see Appendix L). Coaches were asked to fill in the CSAI-2md and MCOPE questionnaires retrospectively (i.e., to consider the last important event or competition that they had coached in, when responding to the questionnaire items). At the end of the workshop series, coaches were asked to complete a social validation questionnaire (see also Appendix L) to give their thoughts on the workshop series. To obtain post-intervention questionnaire data, coaches were instructed complete a second set of questionnaires immediately after their

first competition following the workshop series. All coaches returned the post-intervention questionnaires within six weeks of the end of the final workshop.

6.4.4 Data analysis

For the evaluation of the questionnaire data a repeated measures design was adopted. The Independent Variable (IV) was the time of measurement (Pre-workshop [PRE], and Post-workshop [POST]). The outcome measures (OMs) were the coaches' subscale scores on the CSAI-2, MCOPE and the MSQ questionnaires. Because of the small sample size ($n=5$), parametric tests were considered unsuitable. As such, non-parametric statistical tests were used to identify differences between PRE and POST subscale scores on each of the relevant questionnaires. Specifically, Wilcoxon Signed-Ranks tests were carried out to identify meaningful differences. Statistical levels were set at $p<0.05$. Data was analysed using SPSS statistical package (SPSS UK Ltd, Woking UK).

6.5 Results

The results of this evaluation are presented in two sections. The first section reports the findings from analysis of the pre- and post-intervention questionnaire data⁴. The second section examines the data from the social validation questionnaires in which coaches discussed their perceptions of the Coaching under Pressure MST programme. Means and standard deviations for all pre- and post-intervention data are presented in table 6.1 (p.193).

6.5.1 Analysis of questionnaire data

6.5.1.1 MSQ

Coaches' mean scores for imagery, mental preparation, self-confidence, and relaxation all increased from the pre- to the post-intervention evaluations, indicating that coaches rated themselves as better at these skills after the intervention (see Fig 6.3 on p.194). However, the coaches' mean scores on the subscales of anxiety/worry management, concentration, and motivation all showed slight decreases.

To explore whether differences represented significant changes, Wilcoxon Signed-Ranks tests were carried out on each of the subscales. No significant differences were found between pre- and post-evaluation scores for imagery, mental preparation, anxiety/worry management, concentration, or motivation. However, analysis of the data indicated that coaches self-reported ability to relax was significantly higher after the intervention (Mdn = 19.0), than before the intervention (Mdn = 14.0), p (one-tailed) = 0.021. Further coaches scores on the self-confidence subscale of the MSQ were also significantly higher post-intervention (Mdn = 18.0) than pre-intervention (Mdn = 15.0), p (one-tailed) = 0.034.

⁴ See Appendix M for SPSS outputs.

	Pre-intervention		Post-Intervention	
	M	SD	M	SD
MSQ Subscale				
Imagery	18.6	1.34	19.8	1.64
Mental Preparation	16.8	3.42	18.4	2.41
Self-Confidence	15.4	3.21	17.8	1.92
Anxiety/Worry Management	18.6	1.82	17.4	1.14
Concentration	21.8	2.49	20.2	1.48
Relaxation	14.6	2.51	18.0	2.35
Motivation	19.0	2.24	18.6	2.19
CSAI-2md Subscale				
Somatic Intensity	19.6	6.16	17.0	6.22
Cognitive Intensity	22.4	4.03	20.8	4.50
Self-Confidence Intensity	23.8	9.06	24.4	4.27
Somatic Direction	0.2	7.79	4.5	7.05
Cognitive Direction	2.8	9.53	0.3	7.14
Self-Confidence Direction	10.6	15.84	15.5	8.66
MCOPE Subscale				
Instrumental Support	9.2	3.03	8.6	3.50
Emotional Support	8.0	3.67	7.5	3.42
Behavioural Disregulation	6.8	2.59	6.0	1.89
Self-Blame	14.4	2.51	12.0	1.73
Planning	15.2	0.84	14.6	3.83
Suppression of Competing Activities	13.4	1.14	13.4	1.29
Venting	9.4	2.95	9.6	3.40
Humour	5.2	2.17	7.4	3.16
Effort	15.4	2.88	15.6	3.92
Wishful Thinking	10.4	3.65	10.0	3.70
Active Coping	13.6	2.88	14.6	2.16
Denial	6.2	1.10	6.6	1.73
MCOPE Effectiveness Subscales				
Instrumental Support	14.0	1.16	15.4	1.71
Emotional Support	13.0	1.41	14.5	3.12
Behavioural Disregulation	8.8	5.29	10.2	6.02
Self-Blame	13.0	2.99	13.4	3.11
Planning	16.2	1.50	17.0	1.73
Suppression of Competing Activities	13.0	2.83	13.0	4.04
Venting	11.2	1.16	12.2	1.00
Humour	12.6	2.22	11.25	1.71
Effort	14.8	2.30	16.2	1.50
Wishful Thinking	10.2	2.36	9.2	2.63
Active Coping	15.4	1.71	17.2	1.89
Denial	10.8	2.94	11.0	4.08

Table 6.1 Pre- and post-intervention means and standard deviations for each of the questionnaire subscales.

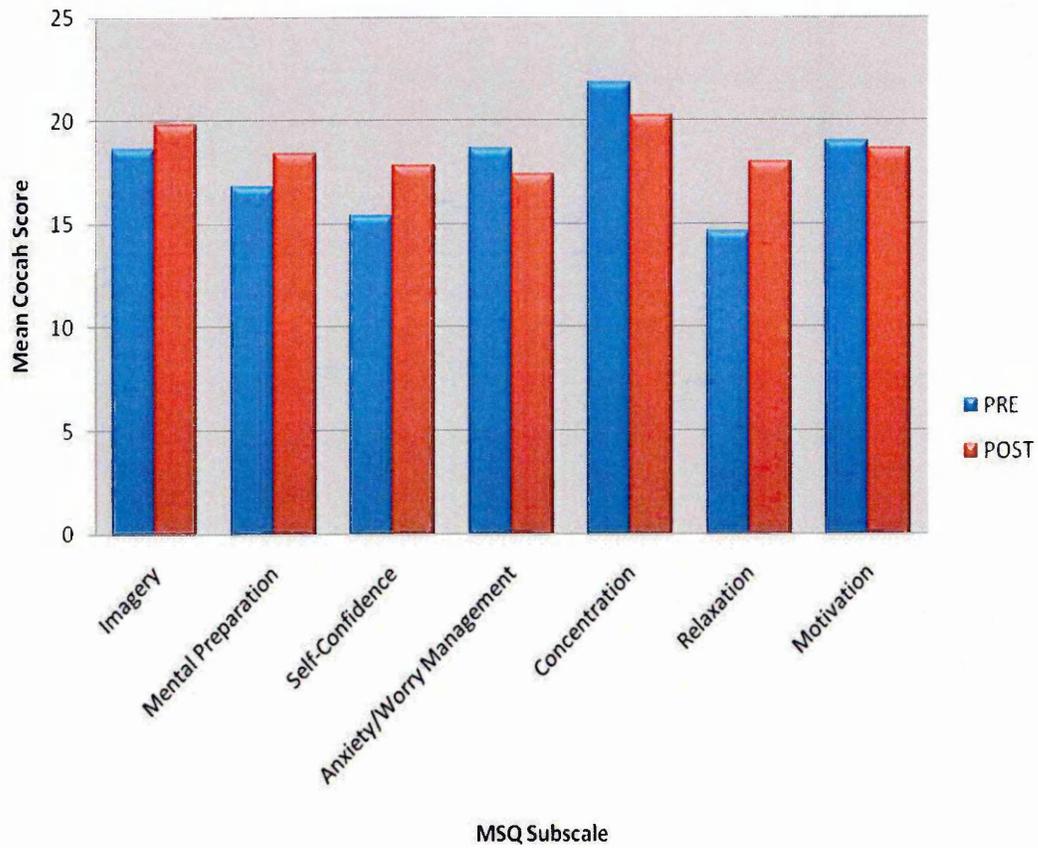


Figure 6.3 Changes in coaches' MSQ subscale scores (pre- to post-intervention).

6.5.1.2 CSAI-2md

Figure 6.4 shows that coaches' mean scores for the intensity of both cognitive and somatic anxiety decreased from pre- to post-intervention measurement, while coaches' mean self-confidence intensity score increased. For the directional interpretation scores, coaches appeared to perceive their somatic anxiety and self-confidence as more facilitative towards performance post-intervention, while cognitive anxiety showed a trend in the opposite direction, becoming perceived as slightly less facilitative.

Again, due to the non-parametric nature of the data, Wilcoxon Signed-Rank tests were carried out on each of the CSAI-2md subscales to find out whether any of the changes in coaches' scores represented significant differences. For the coaches' intensity scores on the CSAI-2md, no significant differences were found between pre- and post-intervention evaluation cognitive anxiety and self-confidence subscales. However, the intensity of coaches' pre-competition somatic anxiety was significantly higher pre-intervention (Mdn = 15.0), when compared with post-intervention (Mdn = 17.5), p (one-tailed) = 0.034. For the directional interpretation scores, although coaches perceived that their somatic anxiety and self-confidence became more facilitative, no significant differences were found.

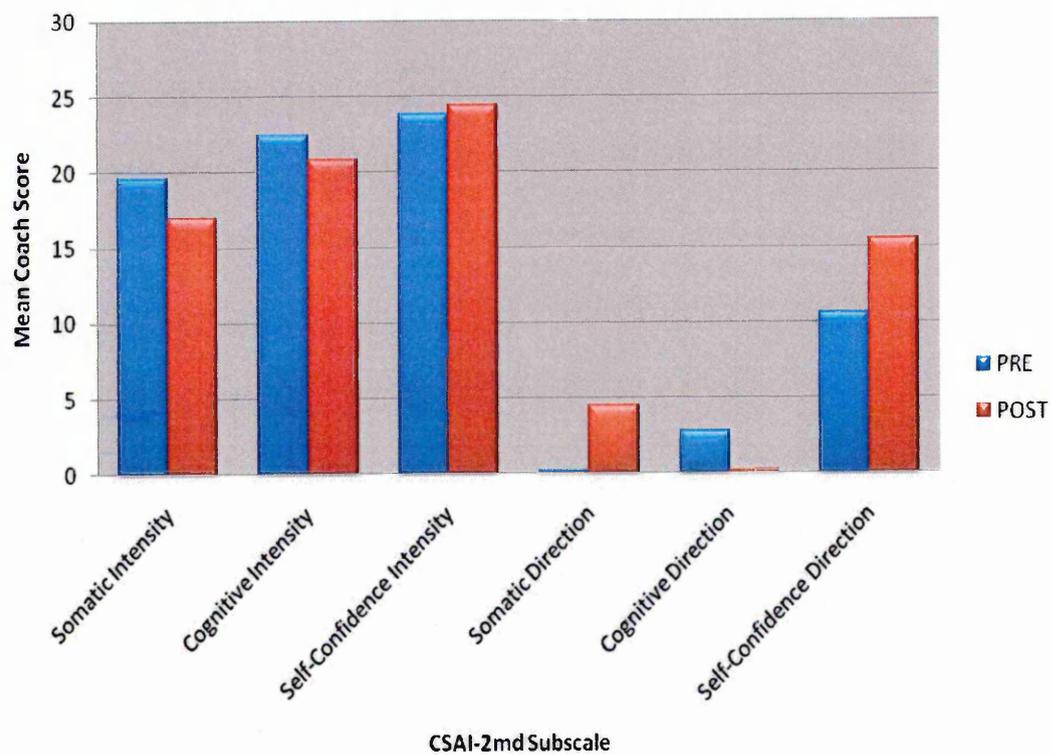


Figure 6.4 Changes in coaches' CSAI-2md subscale scores (pre- to post-intervention).

6.5.1.3 MCOPE

Figure 6.5 shows the changes in the coping strategies employed by coaches between pre- and post-intervention evaluation. The results suggest that coaches used venting, humour, active coping, and denial to a greater extent after the Coaching under Pressure workshops than they had before the intervention. All the other subscale scores (seeking social support for instrumental/emotional reasons, behavioural dysregulation, self blame, planning, and wishful thinking) decreased between pre- and post-intervention evaluation, indicating these coping strategies were used less frequently after the workshops. The subscale suppression of competing activities showed no change from pre- to post-intervention evaluation.

Wilcoxon Signed-Rank tests were again carried out on each of the subscales to find out whether any these differences were significant. Results indicated that coaches used self-blame as a coping strategy significantly less after the Coaching under Pressure workshops (Mdn = 12.0) than before (Mdn = 15), p (two-tailed) = 0.021. No significant differences were found on any other of the MCOPE subscales.

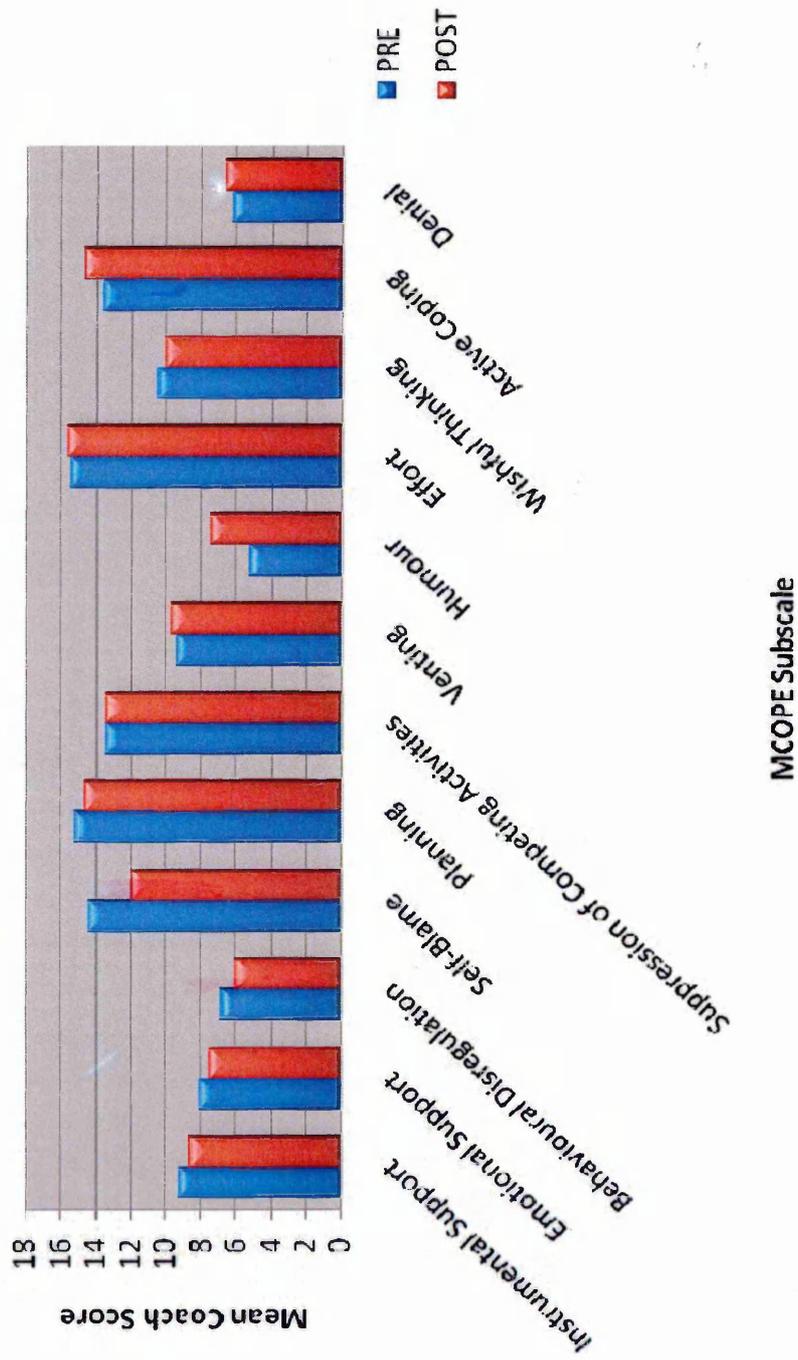


Figure 6.5 Changes in coaches' MCOPE subscale scores (pre- to post-intervention).

6.5.1.3 MCOPE Effectiveness Scale

Figure 6.6 shows how effective the coaches perceived each coping strategy to be before and after the Coaching under Pressure MST programme. While humour, and wishful thinking showed downward trends (i.e., were perceived as less effective), all of the other subscale scores (again, with the exclusion of suppression of competing activities which showed no change) increased, suggesting that coaches found these coping strategies to be more effective after the intervention period.

Once again Wilcoxon Signed-Rank tests were carried out on the data to test for significant differences. However, no significant differences were found between coaches' pre- and post-intervention MCOPE Effectiveness subscale scores.

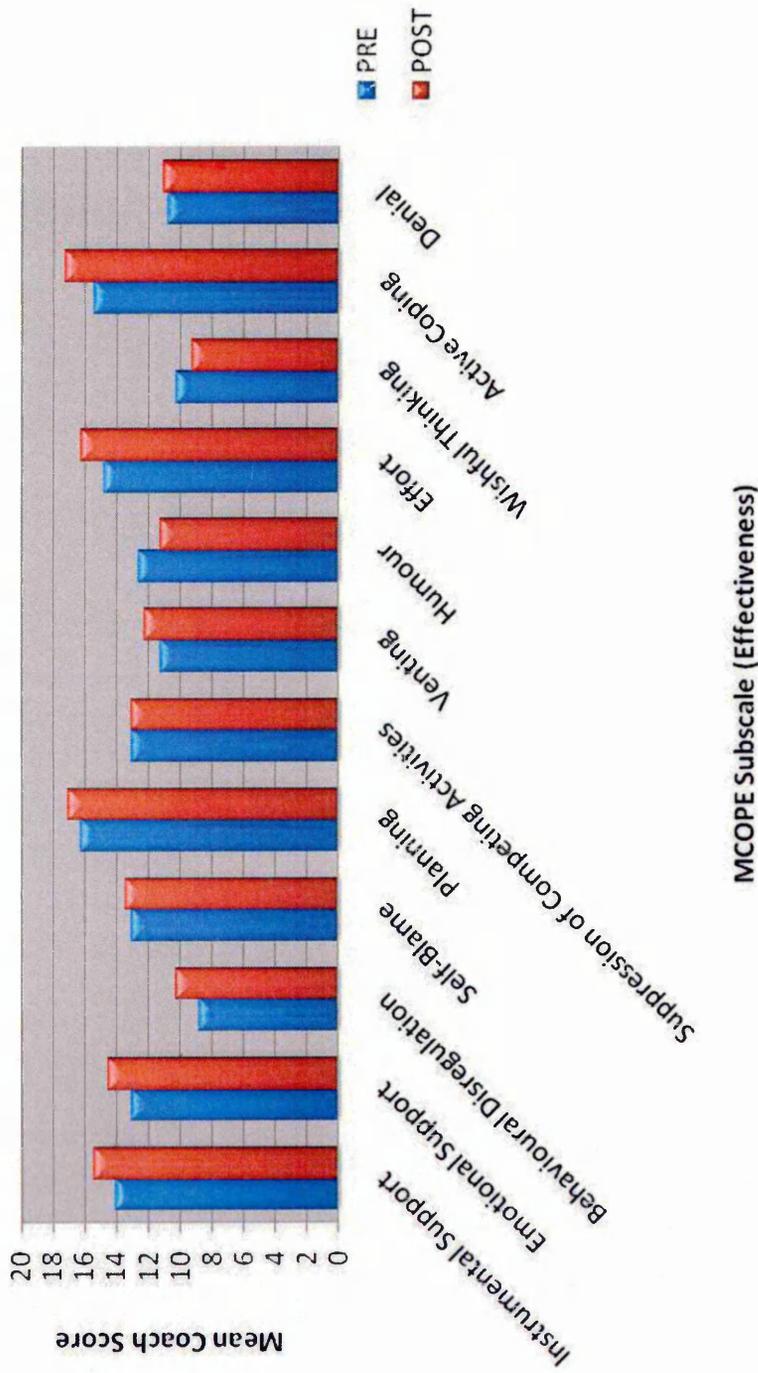


Figure 6.6 Changes in coaches' MCOPE Effectiveness subscale scores (pre- to post-intervention).

6.5.2 Analysis of Social Validation Questionnaire data

Fundamental to applied sport psychology is the need to evaluate applied practice (Andersen et al., 2002; Vealey, 1994). While questionnaires were employed to note any significant changes in coaches' self-reported use of mental skills, experience of competitive anxiety, and use of coping strategies, in accordance with Kelly's (1955) Personal Construct Theory, feedback should also be gathered regarding participants' satisfaction with and perceptions of the intervention. For the first part of the Social Validation Questionnaire Coaches were asked to respond to a series of statements about the intervention on a likert-type scale (e.g., 0 = *not at all important for me* to 7 = *extremely important for me*). For the second part, coaches were asked a series of open ended questions about their participation in the Coaching under Pressure workshops and their perceptions of the programme as a whole (see Appendix L for full list). Here, a deductive approach was taken and the questions asked resulted in pre-determined themes being created (Patton, 2002).

Coaches' post-intervention evaluations indicated that being mentally prepared for the demands of coaching was important to them (Mean = 6.4 on a scale of 0 = *not at all important for me* to 7 = *extremely important for me*). Coaches also suggested that changes in their coaching performance were significant (Mean = 5.2 on a scale of 0 = *not at all significant for me* to 7 = *extremely significant for me*). The results from the Social Validation Questionnaire indicated that coaches were satisfied with the Coaching under Pressure MST programme (Mean = 6.2 on a scale of 0 = *not at all satisfied* to 7 = *extremely satisfied*) and found attending the workshops useful for their coaching development (Mean = 6.0 on a scale of 0 = *not at all useful for me* to 7 = *extremely useful to me*).

Coaches felt that taking part in the programme had helped their coaching performance by giving them "techniques to keep focussed, stay in the moment and be positive". Three coaches also suggested that having time to reflect on their performance was extremely helpful, while one coach explained how the intervention had helped him to pay more attention to his own mental preparation:

It made me realise that I need to look after myself more and use all the performance skills that I encourage in my athletes. Too often I am too focused on them and not paying anywhere near enough attention to myself.

Coaches were also asked about what they felt to be the most beneficial aspects of the programme. Three coaches discussed how beneficial the relaxation training had been for them, while "sharing practices and experiences with coaching colleagues" was also highlighted. One coach also reiterated the importance of self-confidence for coaching in the following answer:

The building of self-confidence and positive self-talk. The sheet we went through for reframing negative thoughts I thought was excellent and have shared it with my athletes.

When asked about which aspect of the course was the most difficult to learn/practise, all five coaches explained that going through the programme of Applied Relaxation was the most challenging. One coach explained that "in terms of new skills, the relaxation technique was difficult because it was completely new so was very time consuming to begin with." Another discussed the fact that he found it difficult to "learn how to release muscular tension in [his] body," because he was "so used to being tense."

In terms of what coaches would change about the programme, only two coaches responded. One coach suggested that the course "could have been done over a longer period of time to allow for more development of skills/ideas." Again, this coach highlighted the benefits of coach interaction, suggesting that a longer course would have

"allowed coaches to feed back to each other more and challenge each other more." The other coach who responded to this question explained how he would have liked "more information reported from high-level/Olympic coaches... this sometimes reinforces personally why we do what we do."

6.6 Discussion and Conclusions

While a significant amount of research has investigated the development and evaluation of MST training packages and interventions for athletes (cf., Daw & Burton, 1994; Hanton & Jones, 1999; Patrick & Hrycaiko, 1998; Thelwell & Greenlees, 2001; 2003; Shoenfelt & Griffith, 2008), the same value does not seem to have been placed on MST for coaches, despite Taylor's (1992) concern over managing stress in the coaching role. Based upon previous research (cf., Olusoga et al., 2009; Olusoga et al., 2010; Olusoga et al., 2012), the purpose of this study was to outline the design, development, delivery and evaluation of a MST programme aimed at helping sports coaches develop the psychological skills and attributes identified as essential for coaching in pressurised, stressful situations (see Chapter V).

While the design and development of the intervention has been outlined in detail in section 6.3 above (pp.175-185), the results suggest that coaches experienced positive changes in their perceptions of their ability to coach effectively under pressure. Perhaps the most pronounced change in coaches over the intervention period was their ability to relax. While the MSQ indicated that the coaches' relaxation skills improved, the CSAI-2md also suggested that coaches were effectively using these skills in competition situations. Specifically, the perceived intensity of somatic anxiety symptoms during competition was significantly lower for coaches after the intervention period. Although coaches had suggested that the Applied Relaxation component had been the most difficult to practise and learn, the findings indicate that this might also had the biggest

impact on coaches. Given the importance afforded to confidence by coaches in studies two and three of this thesis, it was pleasing to see that both the MSQ and the CSAI-2 indicated positive changes in this area.

Consistent with a process-oriented approach to coping (Lazarus & Folkman, 1984), analysis of the MCOPE questionnaire data revealed that coaches used a variety of coping strategies to manage the stressors they encountered in their coaching roles (see Figure 6.5, p.198). However, the only statistically significant changes in the coping strategies used before and after the intervention was that self-blame was used less post-intervention. In terms of coping effectiveness, the data did suggest some positive trends were apparent. Specifically, each of the coping strategies (with the exceptions of suppression of competing activities, humour, and wishful thinking) was perceived by coaches as being more effective after the MST programme.

While it was somewhat disappointing that the observed positive trends did not reach statistical significance, the experimental design used, and the lack of a control group meant that results would have to be interpreted with caution regardless. In applied settings, typical measurement scales consisting of preselected items (e.g., the CSAI-2md used in this study) might not be relevant for all individuals (Feltz & Chase, 1998) and this quantitative, nomothetic approach to research may not, therefore, be appropriate for evaluating the effectiveness of a MST programme. However, Daw and Burton (1994) referred to two types of significance that should be considered in the evaluation of any mental skills training programme. While statistical significance is sought to reassure researchers that observed results were not simply due to chance, the importance of practical significance for the participants should not be underestimated. Practical significance refers to how beneficial an athlete or, in this case, a coach, perceives that the intervention, or the learning of a particular skill was in enhancing their performance. Furthermore, it is entirely possible that practical significance will be

highlighted where statistical significance is absent. In the present study, the practical significance of the Coaching under Pressure MST programme was highlighted by coaches through the Social Validation Questionnaire. Although there were no statistically significant changes in the coping strategies used by coaches, having time to reflect, sharing experiences and best practice with other coaches, building self-confidence, and developing the ability to physically relax when encountering stressors were all highlighted as beneficial aspects of the programme for coaches. Furthermore, coaches indicated that they had experienced positive changes in their coaching performance, that they had been satisfied with the MST programme, that the programme was useful, and that they understood the importance of being mentally prepared for the demands of coaching.

Indeed, one of the major strengths of the study was the benefit gained from the workshop format of the intervention and the interaction between coaches during the programme. As discussed in detail in the previous chapter, frequent discussion and interaction with peers and colleagues is vital for coach development (Gilbert et al., 2006; Lynch & Mallet, 2006). Indeed, in study three (Olusoga et al., 2012), coach interaction was one of the most cited themes when coaches were asked about how they had developed the skills and attributes that were important for Olympic-standard coaching. As such, it was considered important that any intervention or MST programme developed from this thesis be carried out in a group setting to allow a greater degree of coach interaction than in a one-to-one consultancy. The findings certainly seem to provide support for evidence suggesting that the delivery of MST interventions as comprehensive packages can be beneficial in group settings (e.g., Blakeslee & Goff 2007). One of the medal winning coaches in study three raised the point that experienced coaches must be willing to share their experiences and be open and honest about their own practices if other coaches are to benefit from this wealth of experience

available to them. Part of the success of the workshops in the present study was undoubtedly due to the coaches' willingness and, indeed eagerness, to share their own experiences and stories.

Another of the study's strengths was the strong evidence base and rationale for the material included in the Coaching under Pressure MST workshop programme. The fact that the workshops were developed based on findings from three in-depth investigations into coaching stress and performance with elite and highly successful coaches was an undoubted strength of the programme. Existing literature on the use of mental skills to enhance performance and develop adaptive cognitions was also taken into consideration in the design of each workshop. Taking this research into account allowed for the development of a comprehensive MST programme aimed at developing coaches' abilities, skills, and psychological attributes, in areas that had been identified as important by a group of extremely successful Olympic coaches. Indeed, it is particularly encouraging that the workshop material, based on the findings of research with Olympic coaches, can be successfully delivered to developing coaches in the earlier stages of their careers.

This study also faced a number of challenges inherent in conducting research in real-world settings and, as such, there were also several limitations that need to be acknowledged when interpreting the results and taken into consideration when designing and evaluating future MST programmes. First, while the small sample size certainly had its advantages (a more intimate setting for the facilitation of group discussion and interaction), it also meant that the results of the evaluation must be interpreted with a substantial degree of caution. Although the results indicated that the Coaching under Pressure workshops had a largely positive influence on coaches' appreciation, use, and understanding of various mental skills, it is difficult to say with certainty that this was solely the result of the MST programme. The coaches may have

developed their psychological skills naturally through the process of engaging with their teams, athletes, and colleagues over the time of the intervention. The fact that only five coaches participated meant that it was not feasible to include a control group in the evaluation and so causality cannot be concluded. This certainly hinders the generalisability of any positive findings.

One criticism of intervention research is that there has been a distinct lack of follow-up assessments that allow retention effects to be assessed (Hanton & Jones, 1999). Unfortunately, from a practical perspective, the availability of coaches did not allow for any further data collection to take place after the post-intervention evaluation. Future research evaluating MST for coaches should not only include a control and/or placebo group, but should also certainly incorporate follow-up assessments into the study design, as advocated by Hanton and Jones. However, although single-subject designs with multiple baselines are a common and effective way of measuring the efficacy of MST programmes (e.g., Thelwell & Greenlees, 2001; 2003), it was deemed vital, due to the potential benefits of coach interaction that the intervention in the present study be delivered to all participants at the same time.

While the advantages of the group workshop delivery have already been outlined elsewhere, future research might consider using follow-up one-to-one sessions with coaches in addition to the workshop programme to discuss individual issues in greater depth. It was felt that in the present study, having time to discuss, for example, cognitive restructuring strategies, issues with relaxation techniques, and confidence building strategies on an individual basis might have been of benefit for the coaches. However, as outlined by Brewer and Shillinglaw (1992), financial, temporal, and practical constraints, (e.g., the availability of consultants), might preclude the use of one-to-one consultancy in the delivery of MST programmes such as the one employed in this study.

So that future studies can effectively evaluate the efficacy of MST packages for coaches, further research must address the limitations outlined here. The small sample size (and lack of control group) and unavailability of coaches for follow-up retention data to be collected have already been discussed. However, future research should also consider the measures used to assess the efficacy of the training programme. For athletes, performance measures are usually readily available (e.g., race-times, scores, win-loss ratio). However, for coaches, such objective measures of performance are virtually non-existent. Any attempt to use such measures are immediately hindered by the fact that the coaches' athletes and teams are ultimately responsible for how fast they run or how many points are scored. Although the present study attempted to use a social validation questionnaire to explore coaches' perceptions of the MST programme, future research should consider the use of subjective measures. Questioning the coaches' athletes on their perceptions of any changes in overt coach behaviours might be a possible way forward in this regard.

The present study attempted to gain an insight into the overall effectiveness of the programme. However, other authors (e.g., Gould et al., 1990) investigated how each separate skill taught within a MST programme influenced participants' perceived importance, knowledge, and use of that skill. A final area worthy of further investigation is the efficacy of the various elements of the MST programme, and how they impact upon coaches' knowledge and use of various psychological skills.

To conclude, the findings of the present study indicated that a Coaching under Pressure MST programme for coaches, including Applied Relaxation, cognitive restructuring, confidence-building exercises, and communication strategies, had a positive impact on the coaches who took part in the workshops. Although the evaluation of the programme was limited by the small sample size and by logistic and practical constraints, the results indicated that coaches had positive perceptions of the

programme and found it useful for their coaching practice. Delivery of the intervention programme in a group setting, not only followed the recommendations of previous research which outlined the importance of coach interaction for coach development, but the ability of coaches to share information and best practice was also highlighted by coaches as an important part of their development over the course of the intervention. Taken together, the findings of the studies contained within this thesis suggest that there are important implications for sports coaching at a number of different levels (e.g., organisational, individual, cultural). These implications will be discussed further in Chapter VII.

CHAPTER VII

Summary, Discussion, & Conclusions

7.1 Introduction

The final chapter of this thesis is divided into three major sections. First, a summary of the overall aims of the thesis is provided, along with an outline of the major findings from each of the four studies. The discussion section then addresses the major implications of the research findings, the strengths and limitations of the research programme as a whole, and identifies areas in which future research would be beneficial. Finally, overall conclusions drawn from the thesis are presented.

7.2 Summary

A significant amount of research has explored the stressful nature of sport, and, in particular, the emergence of organisational stress as a research topic has driven the need to explore coaches' experiences as well as those of athletes (Woodman & Hardy, 2001). However, until recently, the bulk of this research had been conducted with North American collegiate and high-school coaches, yet the experiences of coaches operating in the world class sporting arena are likely to be significantly different. Further, the focus of sport psychology researchers and practitioners alike has been on identifying the psychological characteristics necessary for peak performance. However, while the majority of research and practice is aimed at athletes, the coaches of these athletes can and should be considered performers in their own right. With a transactional theory of stress in mind (Lazarus & Launier, 1978), the overall purpose of the thesis was to explore, in depth, the stress experiences of elite coaches on world class sports programmes in the UK, with the ultimate aim of informing the education of developing coaches on the pathway to elite sports coaching.

Phase one of the thesis (i.e., studies one and two) was concerned with a comprehensive exploration of elite coaches' experiences of stress during their careers coaching world class athletes. The purpose of study one was to identify the stressors experienced by elite coaches during their careers coaching at an elite level. Consistent with previous literature (e.g., Thelwell et al., 2008b), stressors considered organisational and competitive in nature emerged from interviews with 12 coaches. Coaches described conflict within the organisation as well as the pressure and expectation of success that they placed on themselves and that was placed upon them by management. In addition, coaches cited the athletes they coached as significant stressors for them, indicating that the coach-athlete relationship is a mutually stressful one. To gain an overall picture of coaches' experiences of stress, and in keeping with Fletcher and Fletcher's (2005) meta model of stress, emotions and performance (cf., Fletcher & Scott, 2010), it was deemed important that research explore the responses and effects of stress for coaches, as well as the ways in which coaches at the world class level manage stress.

The purpose of study two was to explore the ways in which world class coaches responded to stressors, the effects of experiencing stress, and the coping strategies coaches employed to help manage the stressors they encountered. In this study, coaches described not only immediate emotional responses to stress, such as anger and frustration, but also explained that there were longer term effects. Specifically, in line with stress explanations of burnout (Smith, 1986), coaches discussed symptoms associated with the syndrome, such as emotional and physical exhaustion, lack of enjoyment, motivation, and withdrawal. Coaches also suggested that their confidence could be affected by stress and that their responses to stress had a negative impact upon the athletes they coached. Furthermore, findings suggested that coaches' use of psychological skills as coping strategies was perhaps limited, with avoidance and distraction often being used to cope with stressors. Based on these findings, it was

proposed that coaches' use of psychological skills in the competitive environment be further explored, and that coaches could benefit from developing the skills and strategies needed to cope with the demands of world class coaching.

The second phase of the thesis (i.e., studies three and four) was concerned with the development of an intervention programme for coaches, aimed at enhancing their coaching performance in a world class environment. While coaching has been recognised as a stressful occupation (Taylor, 1992) and the Olympic Games has been identified as a competitive environment unlike any other (Gould, Guinan et al., 2002), there are still instances where coaches perform to the best of their ability and inspire their athletes to great success. To optimise the education and the personal and professional development of coaches, a comprehensive understanding of the factors that enable coaches to perform under pressure at the highest levels must be sought. As such, study three explored the factors that successful, experienced coaches perceived to be essential for Olympic coaching performances, and the ways in which coaches had developed these attributes.

Coaches identified 11 key psychological attributes including emotional control, confidence, and communication, and also described the important roles of preparation and coping at the events themselves. Coaches also provided recommendations for developing coaches, suggesting that contact with experienced colleagues was a particularly significant feature of coach education. The importance of psychological factors for coaches was clearly apparent, yet their perceptions of sport psychology provision were mixed. Recommendations from coaches were taken into consideration in the development of an intervention programme, the evaluation of which was the focus of study four of the thesis.

While the efficacy of mental skills such as goal-setting, imagery, relaxation, and positive self-talk (e.g., Bull, 1989; Shambrook & Bull, 1996; Ward & Carnes, 2002) has

been demonstrated, combining skills into comprehensive MST "packages" might be particularly gainful in group settings (Blakeslee & Goff, 2007). Study four involved the design, delivery, and evaluation of a Coaching under Pressure mental skills training programme that was developed based on the findings of studies one, two and three. A group of five collegiate/national league level coaches from a higher-education institution in the UK took part in a series of workshops combining a number of mental skills and stress management techniques. The design and development of the intervention package was detailed in the previous chapter (pp.175-185). Although hampered by a number of practical and logistic limitations, analysis of the data suggested that the coaches' experiences of the programme were positive. The small sample size prohibited the use of a control group and, therefore, causality cannot be implied, yet coaches perceived their relaxation skills to have improved over the course of the intervention period. The intensity of the somatic anxiety experienced in competition was also reduced, and although a large proportion of the results from the quantitative analysis were non-significant, several encouraging trends were observed. Specifically, while there appeared to be little change in the coping strategies used by coaches, coaches appeared to perceive their coping efforts as more effective after the intervention.

While statistical significance was only observed for a small number of the variables for which measures were taken, the practical significance of the intervention for coaches was underlined in the study. Specifically, coaches indicated, via a social validation questionnaire, that they understood the importance of being mentally prepared for the demands of coaching, that the programme was useful for them, that they had been satisfied with the MST programme, and, importantly, that they had experienced positive changes in their coaching performance as a result of the intervention.

7.3 Discussion

The following section provides a critical discussion of the research described in the thesis, while practical applications that have emerged from the studies therein are also discussed in detail. The major strengths and limitations of the research programme are examined, and directions for future research are considered.

7.3.1 Stress in elite sports coaching

Lazarus' (Lazarus & Launier, 1978) transactional theory of stress and Fletcher and Fletcher's (2005) meta-model of stress, emotions, and performance provided a framework for the discussion of the various aspects of the stress process. Specifically, within this thesis, performance and organisational stressors, responses to stressors, effects on wellbeing and performance, and coping strategies have all been discussed in relation to elite sports coaching. Previous literature has explored the phenomena of stress and coping in athlete populations (e.g., Giacobbi et al., 2004; Gould et al., 1993; Gould, Finch, et al., 1993; McKay et al., 2008; Nichols & Polman, 2007; Reeves et al., 2009; Scanlan et al., 1991). However, research that has focused on coaches has, until recently, been somewhat scarce, and the research contained within this thesis has certainly advanced the understanding of sports coaches' experiences of stress, not least due to the qualitative methods used (i.e., in-depth interviews) and, thus, the richness of the data gathered.

Importantly, this thesis addressed the criticisms of stress research outlined in detail in Chapter II (pp.48-61), and by Fletcher and Scott (2010). Specifically, Fletcher and Scott suggested that grouping stressors and responses together "obscures the cognitive underpinning of the stress experience, and gives the erroneous impression that stress is a negative experience" (p.128). In particular, Fletcher and Scott referred to research that had reported what were ostensibly responses to stress (e.g., worries/self-

doubts) as stressors or "sources of stress" (e.g., Scanlan et al., 1991). This thesis made the distinction between stressors (environmental demands) and strain (negative physical, behavioural, and emotional responses to stressors) when discussing coaches experiences of stress in studies one and two (Chapters III & IV).

Woodman and Hardy (2001) suggested that research into stress in sport had failed to identify the origins of stressors. Using Carron's (1982) model of group cohesion as a deductive framework, Woodman and Hardy sought to identify the organisational stressors that athletes encountered. Indeed, this line of research continued with several authors (e.g., Fletcher & Hanton, 2003; Hanton et al., 2005) concluding that organisational stressors were mentioned by athletes more than competitive stressors. While study one (Chapter III) did not impose any pre-existing theoretical framework on the data, it did emerge that both organisational and competitive stressors were salient for coaches. Further, in line with the transactional approach to the study of stress, coaches appear to have to cope with a combination of stressors, rather than stressors occurring in isolation.

In reviewing previous literature identifying coaching-related stressors, Fletcher and Scott (2010) tentatively suggested that coaches operating at a higher level might well experience a greater number of performance and organisational stressors. Thelwell et al. (2008b) reported 182 distinct stressors in their study of elite British coaches, while Frey (2007), in her study of collegiate coaches in the USA, only reported nine different stressor themes. While it is fair to point out that Frey did not report the individual stressors that coaches identified, the number of themes reported by Thelwell et al. was significantly higher. Study one of this thesis, which also explored stressors in elite, British coaching, identified 130 distinct stressors, a number closer to the findings of Thelwell et al. This lends credence to the notion that coaches at the elite level operate

in a highly demanding environment, and also provides support for the sheer variety of stressors identified by Thelwell et al. (2008b).

Again in keeping with Fletcher and Fletcher's (2005) meta-model, this thesis distinguished conceptually, between coaches' responses to stress (the more immediate behavioural, physical, and emotional reactions) and the effects of stress (the longer-term consequences of strain). Further, it was important to note that in keeping with the model, and with a transactional approach to stress in general, that coaches described positive experiences of stress in study two. Specifically, while coaches acknowledged that stressors were an inherent part of their coaching roles, several described positive responses, such as increased productivity, determination, and focus. While Lazarus (2000a) suggested that stress is more often associated with negative responses, it is important for researchers to recognise "the reality of the stress experience" as a complex and multifaceted psychological process (Fletcher & Scott, 2010, p.128).

The line of research investigating coaches' responses to stress and the effects of stress for coaches had focused largely on burnout (see Goodger et al., 2007 for a review). Although commitment-based (Schmidt & Stein, 1991) and sociological (Coakley, 1992) explanations have been suggested for burnout, Smith's stress-based explanation has received some attention in the coaching burnout literature. Most notably, Kelley and Gill (1993) found support for Smith's cognitive-affective model of stress, with their results indicating that perceived stress was positively related to burnout. The results of study two (Chapter IV) provide further support for stress-based explanations of burnout with all 12 coaches reporting negative psychological responses to stressors, similar to symptoms of burnout previously described in the literature (e.g., emotional fatigue, mental fatigued, a sense of reduced enjoyment, losing or questioning motivation to continue in the job). While coaches were not asked to complete burnout

inventories as part of this thesis, the findings from study two certainly suggest that burnout might well be a characteristic of elite sports coaching.

In addition, previous research has found evidence that coaches' responses to stress can have an impact on their athletes' cognitions and performances. In particular, one of the coaches in Frey's (2007) study felt that when experiencing stress, her unapproachable manner resulted in her athletes keeping issues to themselves so as not to bother her. McCann (1997) also suggested that athletes can easily recognise when their coaches are experiencing stress and that this might have a negative impact on an athlete's confidence. The findings of this thesis lend support to the notion that coaches' responses to stress might affect their athletes and gives some insight into the mechanism by which this might occur. For example, coaches in study two explained how athletes' performances might suffer as a result of a change in coaching style or behaviour due to stress (e.g., becoming too directive, instructions to athletes might get lost), or as a result of the athlete's cognitions being affected by the coaches stress responses (e.g., the athlete losing confidence).

The findings of the thesis are also supportive of a process-oriented approach to coping. While coping strategies that could be described as problem-focused and emotion-focused were discussed, coaches also reported a significant number of avoidance behaviours in their attempts to manage stress. Conflicting views exist on how avoidance should be conceptualised as a coping strategy. Endler and Parker (1990) assert that avoidance-oriented coping might be a third coping dimension (in addition to problem- and emotion-focused coping). Nicholls et al. (2005) suggested that avoidance might be a type of emotion-focused coping, while Anshel et al. (1997) argued that avoidance was a coping style, rather than a strategy, and could be either problem (e.g., applying a mental distraction) or emotion-focused (e.g., vent unpleasant emotions, cry). However, while this debate over coping dimensions continues, Lazarus (2006)

suggested that conceptually, coping and appraisal are inextricably linked and overlap. Without further research to explore precisely why a chosen coping strategy is employed, it is difficult to declare with any conviction whether avoidance is an attempt to manage the emotions associated with the appraisal of a particular stressor, or a strategy in and of itself. As such it is unclear, without full and detailed explanations of what is going on in an individual's mind, and the context of the transaction, whether any given stress related thought or action is an appraisal, a coping process or a combination of the two.

There are also a number of personal and situational variables that have been highlighted by researchers as moderators of the relationship between stressors, strain, and coping. For example, trait anxiety (Vealey et al., 1992) and hardiness (Kelley, 1994) have both been suggested to play a role in coaches' likelihood of experiencing burnout. Study three of the thesis was aimed at identifying the attributes and characteristics of coaches who had experienced success in a highly demanding Olympic environment. Findings suggested that personal characteristics such as commitment, control (of emotions), confidence, consistency, and a focus on athlete needs were all essential for successful coaching in a stressful, competitive environment. Further, support was provided for the notion that social support might play an important role in coaches' ability to cope with stressors and coach effectively in such an environment. Specifically, coaches in study two discussed the need to have support from friends both in and outside of their professional circles, while coaches in study three emphasised the importance of interaction with other coaches as part of their development.

Taken together, the findings from this thesis not only provide support for consistent and well established transactional conceptualisations of the stress process, but also have a number of practical implications for sport organisations, sport psychology practitioners working within those organisations, and the continued development of world-class sports coaches.

7.3.2 Implications for practice

The stressful nature of coaching in a world class sporting environment has been well established in this thesis. Furthermore, the findings of study two suggested that for coaches, the consequences of experiencing stress could be far reaching and potentially serious. In addition, although assessing coping effectiveness was not part of the research, it could be argued that the coping skills and strategies discussed by the coaches in study two are somewhat limited, with avoidance and distraction being cited frequently. Based on the findings from the first two studies, one of the major recommendations of the thesis was that sports coaches and the organisations they work within should give careful consideration to developing coaches' mental skills and their ability to cope with the demands associated with world class sport.

As mentioned elsewhere in this thesis, the efficacy of mental skills training packages for athletes has been well researched (cf., Brewer & Shillinglaw, 1992; Shoenfelt & Griffith, 2008; Thelwell & Greenlees, 2001, 2003). Indeed, findings have generally supported the notion that psychological factors play an important role in success and that systematic mental skills training can have a beneficial effect on performance (Daw & Burton, 1994). However, scant research had investigated the efficacy of mental skills training for coaches, despite Taylor's (1992) concerns about the stressors involved in the coaching role. Study three (Chapter V) of the thesis in particular highlighted the importance of developing psychological attributes and skills and the ability to manage stress, as well as a number of important practical implications for the development of MST programmes for coaches.

It is widely acknowledged that interaction with other coaches, whether in a formal or an informal setting, is an important part of coach education and development (e.g., Cushion et al., 2003; Nash & Sproule, 2009). The findings of this thesis certainly lend credence to this notion. Not only did the experienced coaches who participated in

study three confirm that contact with colleagues had been an essential aspect of their own development, but the findings of study four also provided support for the idea that opportunities for coach interaction should be incorporated into coach development or education programmes.

The suggestion has been made that formal coach education programmes might not necessarily cater adequately for the needs of coaches (e.g., Nelson et al., 2006; Trudel & Gilbert, 2006). However, there is evidence to suggest that formal coach education is actually desired by coaches (Erickson et al., 2008). This contradiction might be explained by the level of experience possessed by the coaches in question. Although Bloom et al. (1997) suggested that mentoring is an essential aspect of coach development, other researchers (e.g., Nash & Sproule, 2009) have contended that mentoring might be less useful for "expert" coaches of elite athletes. While Reade et al., (2008) suggested that coaches near the top of the "knowledge pyramid" might find other coaches to be a more limited source of new ideas, the findings of this thesis suggest that coaches at the elite level are actively seeking new ideas from other expert coaches. Given these findings, several things appear to be essential for continued coaching success, and changes could be implemented at a number of different levels.

At an individual level, sports coaches have a number of responsibilities. First, experienced coaches must be aware of how much they can contribute to the development of younger, less experienced coaches and be encouraged to do so by the culture of the organisations they work within. Second, coaches must be encouraged to consider themselves as performers in their own right. While the sport psychology literature has long since reached this conclusion, there is still a perception among coaches that the sport psychologist should predominantly be working with and for the athlete rather than the coach, despite the importance clearly afforded to psychological attributes in coaching (explored in study three).

In this regard, the sport organisation also has an important role to play. While mandatory MST for coaches is probably not the best course of action, it is perhaps the job of the sport organisation to encourage coaches to see themselves as performers and to prepare for the rigours of competition as such. In doing so, National Governing Bodies (NGBs) must be willing to remove some of the barriers that appear to prevent coaches from accessing psychological support. In particular, there still exists a culture in which seeking support from a sport psychologist might be viewed as a sign of weakness, especially in the competitive workplace environment described by coaches in study one. The perception that "if you're at that stage, you're probably not a top coach," is one that sport organisations must work hard to eradicate. At the policy level, NGBs and other sports organisations must ensure that psychological development and support for their coaching staff is embedded within their coach education and development programmes, rather than seen as additional and optional CPD opportunity.

The findings of this thesis are of significance not only to sport organisations at the elite level, but, arguably, across the broad spectrum of competitive standards. Specifically, coaches in study one indicated that other coaches were stressors for them. However, the importance of other coaches for the development of younger, less experienced coaches has been outlined both within this thesis and by several other authors (e.g., Bloom et al., 1997; Nash & Sproule, 2009). Organisations must foster a culture where coaches are encouraged to share their experiences, their best practice, and their stories. This is an extremely important part of coach development, yet coaches in study three explained that within their particular organisation, there was a danger that experienced coaches might not be as willing to share best practice and share their experience with younger coaches in what is essentially a highly competitive market. The responsibility here lies with individual coaches and at the feet of sport organisations, but it is important that a "big picture" mentality is developed. In order to ensure

sporting success and develop knowledgeable coaches who can cope with the varied demands of elite coaching, effective mentoring systems must be put in place. Where these systems are in place, periodic review of their effectiveness is essential. Again, the coaches interviewed in study three suggested that learning from the experiences of successful coaches from other sports was an important part of their own development and that the amount of this cross-sport interaction should be increased. Best practice should be shared not only within sport organisations, but also across different sports. If sporting success is to be achieved, this gestalt approach to UK sport should perhaps be considered more carefully.

It is also important to consider the implications that the findings of this thesis have for applied sport psychology practitioners. First, sport psychology consultants must be aware of the organisational and competitive influences on sports coaches. As such, echoing the work of Woodman and Hardy (2001), sport psychologists must be equipped to deal with a range of concerns that spans beyond the athletic arena. Indeed, the sport psychologist might have an active role working with NGBs and other sporting organisations to instigate the cultural change discussed above. Second, while there is certainly still a place for the sport psychologist, seemingly recognised by elite and highly successful coaches, the difficulty for practitioners lies in presenting and packaging sport psychology in a way that coaches feel is actually beneficial for them.

7.3.3 Strengths of the research programme

One of the major strengths of the research programme was the quality of the sample used throughout. It has often been suggested that world class sport is significantly different to sport at the collegiate level (e.g., Gould, Guinan, et al., 2002). Indeed examination of the stressors found in study one suggested that coaches operating on the world class stage encounter stressors that differ from those experienced by collegiate level coaches (Frey, 2007). The fact that the coaches used in studies one, two,

and three of this thesis had all experienced coaching at the world class level, and that coaches in study three in particular had all achieved Olympic medal success with their athletes, was an unquestionable strength of the research programme as a whole, as until relatively recently, coaching stress research had been limited to collegiate and high-school populations.

The methods employed within the thesis could also be considered a major strength of the programme. The first three studies employed qualitative methods, using semi-structured interviews as the method of data collection. As the primary goal of phase one was to gain an overall understanding of elite coaches' experiences of stress, the use of interviews allowed for the collection of rich data which gave an in-depth insight into coaches' thoughts and feelings on the subject. To date, research investigating coaches' responses to stress has shed some light on the relationships between stressors and health, and has typically centred on burnout (cf., Goodger et al., 2007). This thesis has certainly extended the literature surrounding stress in sports coaching, exploring, in-depth, the effects that experiencing stressors can have on coaches, and the impact that coaches perceive their own stress responses can have on their athletes.

A further aim of the thesis was to bridge the gap between research and practice, and the fact that the four studies concluded with the design, development, delivery, and evaluation of an applied intervention could be considered perhaps the greatest strength of the research programme. Specifically, studies one and two have provided an enhanced understanding of coaches' experiences of stress within the unique culture of world class sport. Acknowledging the demands placed upon coaches, study three sought to explore the attributes and characteristics that enable coaches to perform their multifaceted roles with success, in a highly pressurised competitive environment, and study four demonstrated the efficacy of a MST and stress management programme

targeted at development coaches, based on the recommendations from the previous three studies. Furthermore, several recommendations were made for the future of coach education and psychological skills training and development for sports coaches.

7.3.4 Limitations of the research programme

While there are a number of strengths of this research programme, there are also several limitations which must be considered. While the quality of the sample used throughout the thesis was an undeniable strength, the timing of the interviews in phase one is an important factor which should not be overlooked. Because the coaches were selected from a variety of sports, they were in different stages of their competitive cycles when interviews took place. Although coaches were encouraged to discuss stressors they had experienced during their careers coaching world class athletes, the stressors (and therefore the effects and responses to stress) might have been recalled in a different light by a coach preparing for a World Cup, when compared to a coach who had just returned from their World Championships. On a related note, the fact that coaches were asked to consider their whole careers is another potentially limiting factor of the research programme. From a developmental perspective, it might be important to explore coaches' experiences of stress at different stages of their careers.

Study two attempted to explore coaches' responses to stressors and the effects that experiencing stress had for them. In order to aid our understanding of the stress process, and to keep in line with a transactional approach to the study of stress, it has been suggested that the responses to specific stressors and the strategies that performers employ to cope with specific stressors should be noted. As discussed in Chapter IV, this would certainly be in keeping with recent athlete stress research conducted (Weston et al., 2009). However, coaches have discussed the fact that stressors are not always experienced in isolation, rather that they are experienced in combination (Olusoga et al.,

2009). As such, accurately linking specific responses and coping strategies to specific stressors that coaches encounter might prove a difficult task for future researchers.

While the information garnered from experienced, successful coaches in study three was certainly important in developing a MST package for developing coaches, there were a number of issues with the sample used that could be considered limitations of the research. Although the pros and cons of using Olympic medal success as a criterion have been debated elsewhere (see Chapter V), there is no doubt that the coaches used in study three were exceptionally successful in their coaching careers. However, the fact that the coaches were taken from only one sport means that the findings might well reflect the culture of that particular sport organisation, more than the culture of world class sports coaching as a whole. The findings should therefore be interpreted with caution. It is plausible that the approaches and attitudes towards sport psychology and to the attributes required for coaching success discussed in the study might be entirely atypical of world class coaching in general. On a similar note, all the coaches in the study were male, and again, opinions regarding the characteristics required for coaching success might not be the same as if female coaches were interviewed.

Finally, the evaluation of the Coaching under Pressure MST programme was limited by several factors. First, the small sample size meant that a control group for the study was not a feasible option. As such, the results should be interpreted with caution. However, it must also be remembered that the practical significance for coaches should be considered at least as important as any statistical significance when evaluating MST programmes. Intervention research has received criticism in the past because of a lack of follow-up assessments that allow retention effects to be assessed (Hanton & Jones, 1999). Unfortunately, this was also an unavoidable limitation of

study four as the unavailability of coaches precluded further data collection after the post-intervention evaluation.

7.3.5 Future research directions

The limitations outlined above suggest that exploring a number of avenues for future research might prove fruitful. Although coaches in studies one and two were encouraged to consider their whole careers with world class athletes, the research really captured coaches' perceptions of their stress experiences at a particular time. As noted above, from a developmental perspective, exploring coaches experiences of stress at various stages in their careers coaching world class athletes might be an interesting avenue for future research.

Goodger et al. (2007) noted that "there is a notable absence of elite coaches" in the burnout literature (p.132). While quantitative methods were not used to assess levels of burnout with the coaches participating in study two, the findings certainly indicated that burnout might well be a significant feature of elite sports coaching with emotional exhaustion and withdrawal being highlighted as effects of stress by coaches. Future research with world class coaches might include such questionnaire based measures of burnout, as comparisons with dual-role collegiate coaches and, indeed, other highly interpersonal occupations might prove worthwhile.

Although this thesis has addressed the strategies used by world class coaches to cope with the demands of coaching in a world class environment, there are a number of issues that perhaps require further investigation. In previous studies of stress in sport (e.g., Anshel & Kassidis, 1997; Crocker, 1992; Giacobbi et al., 2004) avoidance (behavioural and cognitive removal of the self from the stressor) has been reported as a coping strategy. While it has been suggested that the use of avoidance as a coping strategy predicts negative affect and is associated with greater cognitive anxiety

(Ntoumanis & Biddle, 2000), this needs to be investigated further within the arena of elite sports coaching. Along similar lines, coping effectiveness is another area that requires a more thorough investigation.

The present study did not explore gender differences in the coaching stress literature. However, a number of interesting points were raised with reference to gender issues in sports coaching which might provide interesting directions for further study. It has been suggested that perceptions of stress in the workplace can differ between the sexes (Antoniou et al., 2006; Thompson et al., 2006). Further, Kelley and Baghurst (2009) found that female collegiate-level coaches were higher on the coaching issues of Time-Role and Athlete-Concerns, Perceived Stress, and the Emotional Exhaustion dimension of burnout. It would be interesting to investigate whether similar patterns were found in world class sporting environments. However, one related issue highlighted by this thesis was the difficulty in finding female coaches who were operating at that level. Indeed, as noted elsewhere, all of the successful, experienced, medal winning coaches who participated in study three were male. Barriers to professional development for female coaches have been explored, with unequal assumption of competence, lack of mentors, homophobia, and the need to balance home and work life having been identified as salient factors (Kilty, 2006; Knoppers, 1994). However, several of the male coaches in study one reported that balancing the conflicting demands of work and family were stressors for them. Further, lack of mentors, or at least, lack of willingness to engage in useful mentorship, was an issue highlighted by male coaches in study three. While this is not to say that barriers for female coach development do not exist or are exaggerated, this does suggest that perhaps further exploration of this area is warranted.

It has been established that the coach athlete relationship is a mutually stressful one, regardless of the standard of either coach or athlete (Frey, 2007; Olusoga et al.,

2009). Yet the relationship between coach and athlete is vital for the satisfaction of both parties, and for the performance of athletes themselves (Jowett & Cockerill, 2003). While this thesis has provided several practical recommendations for coaches, sport organisations, and applied sport psychology practitioners, research is still required to explore athletes' and coaches' perceived needs in relation to one another in a high performance environment. Importantly, the findings of this thesis not only suggest that coach-athlete communication might be improved at the world class standard, but it is also proposed that communication between coaches, managers, performance directors, and support staff might also be enhanced. Consequently, future research might explore further the dynamic relationships between athletes, coaches, managers, Performance Directors and other support staff at the world class level, with particular emphasis on developing or enhancing the quality of communication. In study two of this thesis, it was suggested that while Dale and Wrisberg (1996) advocated the use of performance profiling in a team setting as an effective method of creating a more open atmosphere for communication, the process might also prove valuable if undertaken with a team of coaches and support/managerial staff.

On a similar theme, the findings of this research programme have demonstrated how stressors can affect coach behaviour in a negative manner. It is also apparent that coaches recognise that resultant changes in their behaviour are stressors for their athletes. While it is clear that coaches perceive their stress responses can have a negative impact on their athletes, either directly through their communication and coaching styles, or indirectly through their behaviours, these situation specific behaviour changes in coaches, and the specific ways in which athletes are affected, warrant further investigation. As such, future research should explore how athletes interpret coaches' verbal and non-verbal stress related behaviours. The effects of coach's stress responses on athletes' subsequent behaviour, performance, and

perceptions of their relationships with their coaches should also be examined in detail. Given that conflict emerged as an important stressor for coaches, and that communication has been cited throughout the thesis as an important aspect of successful coaching that can be negatively affected by stress, determining the extent to which an athlete's performance and satisfaction is due to their perceptions of coach-athlete communication and their coach's ability to manage conflict might be an important research avenue (LaVoi, 2007).

Unfortunately, while the role of confidence has been explored in detail in relation to athletic performance, no research has explored the role of confidence in coaching performance. However, it would appear that confidence is important for coaches, as well as athletes, operating in a world class sports environment. These findings seem particularly significant given that coaches described a loss of confidence as an effect of the stressors involved in world class sports coaching (Olusoga et al., 2010). From an applied perspective, the development and protection of coaches' confidence should play a role in the mental preparation of coaches for the demands of coaching under pressure. However, further research investigating the role of confidence in coaching performance certainly seems justified.

Finally, further research is needed to evaluate MST programmes for sports coaches. While many of the limitations outlined in study four are problems that are inherent in real world research, it is still important to make the design of these experiments as robust as possible. Larger sample sizes are needed so that a control group can be included in the design. Further a longitudinal approach (e.g., over the course of a whole season) should be considered to allow an exploration of how well coaches retain the skills and coping strategies taught as part of the intervention.

7.4 Concluding Remarks

The major purpose of this thesis was to explore, in depth, the phenomenon of stress within the unique culture of world class sport. Results identified the stressors that elite coaches encounter both in and out of the competitive arena. The ways in which coaches respond to stressors, and the effects of these stressors were also explored, along with the ways in which these elite coaches attempt to manage the stress they experience.

The overall aim of this thesis was to bridge the gap between research and practice by informing coach education and development programmes, and providing practical recommendations for sport organisations and for sport psychology practitioners working with coaches. A further, aim of the thesis was to develop an intervention programme based on the experiences of successful, world class coaches, and aimed at enhancing the performance of less experienced, development coaches. The second phase of the thesis in particular (studies three and four) has certainly addressed these major aims. An intervention, based on existing literature and the findings of the thesis, was designed and developed, delivered, and evaluated. Moreover, a number of important implications for the delivery of sport psychology for coaches and for the ways in which sport organisations approach their coach education and development were discussed, while several avenues were also identified for continuing research in elite sports coaching.

References

- Andersen, A. G., Miles, A., Mahoney, C., & Robinson, P. (2002). Evaluating the effectiveness of applied sport psychology practice: Making the case for a case study approach. *The Sport Psychologist, 16*, 432-453.
- Andersen, M. (2000). *Doing sport psychology*. Champaign, IL: Human Kinetics.
- Anshel, M. H. & Kassidis, A. N. (1997). Coping style and situational appraisals as predictors of coping strategies following stressful events in sport as a function of gender and skill level. *British Journal of Psychology, 88*, 263-276.
- Anshel, M. H. & Wells, B. (2000). Sources of acute stress and coping styles in competitive sport. *Anxiety, Stress, and Coping, 13*, 1-26.
- Anshel, M. H. (2001). Qualitative validation of a model for coping with acute stress in sport. *Journal of Sport Behaviour, 24*(3), 223-245.
- Anshel, M. H., Williams, L. R. T., & Hodge, K. (1997). Cross-cultural gender differences on coping style in sport. *International Journal of Sport Psychology, 28*, 141-156.
- Antoniou, A. S., Polychroni, F., & Vlachakis, A. N. (2006). Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece. *Journal of Managerial Psychology, 21*(7), 682-690.
- Appley, M. H., & Turnbull, R. (1967). On the concept of psychological stress. In M. H. Appley & R. Turnbull (Eds.), *Psychological stress: Issues in research* (pp. 1-13). New York: Appleton-Century-Crofts.
- Aris, S. (1990). *Sportsbiz: Inside the sports business*. London: Hutchinson
- Baker, J., Yardley, J., & Côté, J. (2003). Coach behaviours and athlete satisfaction in team and individual sports. *International Journal of Sport Psychology, 34*, 226-239.

- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioural change. *Psychological Review*, 84, 191-215.
- BBC Press Office (2004). [online]. Last accessed 10 March, 2010 at:
www.bbc.co.uk/pressoffice/pressreleases/stories/2004/08_august/29/olympics.shtml
- Beehr, T. A. & Newman, J. E. (1978). Job stress, employee health, and organisational effectiveness: A facet analysis, model, and literature review. *Personnel Psychology*, 31, 665-699.
- Blakeslee, M. L., & Goff, D. M. (2007). The effects of a Mental Skills Training Package on Equestrians. *The Sport Psychologist*, 21, 288-301.
- Bloom, G. A., Durand-Bush, N., & Salmela, J. H. (1997). Pre- and post-competition routines of expert coaches of team sports. *The Sport psychologist*, 11, 127-141.
- Bouffard, M. & Crocker, P. R. E. (1992). Coping by individuals with physical disabilities with perceived challenge in physical activity: are people consistent? *Research Quarterly for Exercise & Sport*, 63(4), 410-417.
- Bowes, I. & Jones, R. L. (2006). Working at the edge of chaos: Understanding coaching as a complex interpersonal system. *The Sport Psychologist*, 20, 235-245.
- Brewer, B. W. & Shillinglaw, R. (1992). Evaluation of a psychological skills training workshop for male intercollegiate lacrosse players. *The Sport Psychologist*, 6, 139-147.
- Bruening, J. E., & Dixon, M. A. (2007). Work-family conflict in coaching II: Managing role conflict. *Journal of Sport Management*, 21, 471-496.
- Bull, S. J. (1989). The role of the sport psychology consultant: A case study of ultra distance running. *The Sport Psychologist*, 2, 254-264.
- Bull, S. J., Albinson, J. G., & Shambrook, C. J. (1996). *The mental game plan: Getting psyched for sport*. Brighton, U.K.: Sports Dynamics

- Bull, S. J., Shambrook, C. J., James, W., & Brooks, J. (2005). Towards an understanding of mental toughness in elite English cricketers. *Journal of Applied Sport Psychology, 17*, 209-207.
- Caccese, T. M. & Mayerberg, C. K. (1984). Gender differences in perceived burnout of college coaches. *Journal of Sport Psychology, 6*, 279-288.
- Campbell, E. & Jones, G. (2002). Sources of stress experienced by elite male wheelchair basketball players. *Adapted Physical Activity Quarterly, 19*(1), 82-99.
- Campen, C. & Roberts, D. C. (2001). Coping strategies of runners. Perceived effectiveness and match to pre-competitive anxiety. *Journal of Sport Behaviour, 24*, 144-161.
- Cannon, W. (1939). *The wisdom of the body*. New York, NY: W.W. Norton and Co Inc.
- Capel, S. A., Sisley, B. L., & Desertrain, G. S. (1987). The relationship of role conflict and role ambiguity to burnout in high school basketball coaches. *Journal of Sport Psychology, 9*, 106-117.
- Carron, A. V. (1982). Cohesiveness in sport groups: Interpretations and considerations. *Journal of Sport Psychology, 4*, 123-138.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267-283.
- Chelladurai, P. (1980). Leadership in sports organizations. *Canadian Journal of Applied Sport Sciences, 5*, 226-231.
- Chelladurai, P. (1984). Discrepancy between preferences and perceptions of leadership behavior and satisfaction of athletes in varying sports. *Journal of Sport Psychology, 6*, 27-41.

- Chelladurai, P., Haggerty, T. R., & Baxter, P. R. (1988). Decision style choices of university basketball coaches and players. *Journal of Sport and Exercise Psychology, 11*, 201-215.
- Cheetham, G. & Chivers, G. (2001). How professionals learn in practice: An investigation of informal learning amongst people working in professions *Journal of European Industrial Training, 25*(5), 248-292.
- Chernis, C. (1980). *Staff burnout: Job stress in the human services*. Beverly Hills, CA: Sage.
- Coakley, J. A. (1992). Burnout among adolescent athletes: A personal failure or social problem. *Sociology of Sport Journal, 9*, 271-285.
- Connaughton, D., Wadey, R., Hanton, S., & Jones, G. (2008). The development and maintenance of mental toughness: Perceptions of elite performers. *Journal of Sports Sciences, 26*(1), 83-95.
- Cooper, C. L. & Marshall, J. (1976). Occupational sources of stress: A review of the literature relating to coronary heart disease and mental ill health. *Journal of Occupational Psychology, 49*(1), 11-28.
- Cooper, C. L. & Dewe, P. (2004). *Stress: A Brief History*. Malden, MA: Blackwell.
- Cooper, C. L., Dewe, P. J., & O'Driscoll, M. P. (2001). *Organisational stress. A review and critique of theory, research, and applications*. Thousand Oaks, CA: Sage.
- Côté, J., Salmela, J. H., Baria, A., & Russel, S. (1993). Organising and interpreting unstructured qualitative data. *The Sport Psychologist, 7*, 127-137.
- Cox, T. & Ferguson, E. (1991). Individual differences, stress and coping. In C. Cooper & R. Payne (Eds.), *Personality and stress: Individual differences in the stress process* (pp. 7-30). Oxford, England: John Wiley & Sons.

- Cresswell, S. L. & Eklund, R. C. (2006). The nature of player burnout in rugby: Key characteristics and attributions. *Journal of Applied Sport Psychology, 18*, 219-239.
- Cresswell, S. L., & Hodge, K. (2004). Coping skills: role of trait sport confidence and trait anxiety. *Perceptual & Motor Skills, 98*(2), 433-438.
- Crocker, P. R. E. (1992). Managing stress by competitive athletes: Ways of coping. *International Journal of Sport Psychology, 23*, 191-175.
- Crocker, P. R. E. & Isaak, K. (1997). Coping during competitions and training sessions: Are youth swimmers consistent? *International Journal of Sport Psychology, 28*, 355-369.
- Crocker, P. R. E., Kowalski, K. C., & Graham, T. R. (1995). Measurement of coping strategies in sport. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp.149-172). Morgantown, WV: Fitness Information Technology, Inc.
- Cushion, C. J., Armour, K. M., & Jones, R. L. (2003). Coach education and continuing professional development: Experience and learning to coach. *Quest, 55*, 215-230.
- Dale, G. A. (2000). Distractions and coping strategies of elite decathletes during their most memorable performances. *The Sport Psychologist, 14*, 17-41.
- Dale, G. A., & Wrisberg, C. A. (1996). The use of a performance profiling technique in a team setting: Getting the athletes and coach on the "same page." *The Sport Psychologist, 10*, 261-277.
- Dale, J. & Weinberg, R. S. (1989). The relationship between coaches' leadership style and burnout. *The Sport Psychologist, 3*(1), 1-13.

- Davidson, R. J. & Schwartz, G. E. (1976). The psychobiology of relaxation and related states: A multi-process theory. In D. I. Mostofsky (Ed.), *Behaviour control and modification of physiological activity* (pp.399-442). Englewood Cliffs, NJ: Prentice Hall.
- Daw, J. & Burton, D. (1994). Evaluation of a comprehensive psychological skills training program for collegiate tennis players. *The Sport Psychologist*, 8, 37-57.
- Drewe, S. B. (2000). An examination of the relationship between coaching and teaching. *Quest*, 52, 79-88.
- Eccles, D. W. & Johnson, M. B. (2009). Letting the social and cognitive merge: New concepts for an understanding of group functioning in sport. In S. D. Mellalieu & S. Hanton (Eds.), *Applied sport psychology advances: A review* (pp.281-316). London, UK: Routledge.
- Eccles, D. W., Ward, P., Woodman, T., Janelle, C. M., LeScanff, C., Ehrlinger, J., Castanier, C., & Coombes, S. A. (2011). Where's the emotion? How sport psychology can inform research on emotion in human factors. *Human Factors*, 53, 180-202
- Edwards, T. & Hardy, L. (1996). The interactive effects of intensity and direction of cognitive and somatic anxiety and self confidence upon performance. *Journal of Sport and Exercise Psychology*, 18, 296-312.
- Edwards, T., Hardy, L., Kingston, K., & Gould, D. (2002). A qualitative analysis of catastrophic performances and the associated thoughts, feelings, and emotions. *The Sport Psychologist*, 16, 1-19.
- Ely, M. (1991). *Doing qualitative research: Circles within circles*. London: The Falmer Press.

- Endler, N. S. & Parker, J. D. A. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology*, 58(5), 844-854.
- Ericsson, K. A., Prietula, M. J., Cokely, & E. T. The making of an expert. *Harvard Business Review*, 85, 114-121.
- Erickson, K., Bruner, M. W., MacDonald, D. J., & Côté, J. (2008). Gaining insight into actual and preferred sources of coaching knowledge. *International Journal of Sports Sciences and Coaching*, 3(4), 527-538.
- Erickson, K., Côté, J., & Fraser-Thomas, J. (2007). Sport experiences, milestones, and educational activities associated with high-performance coaches' development. *The Sport Psychologist*, 21(3), 302-316.
- Evers, A. T., van der Heijden, B. I. J. M., Kreijns, K., & Gerrichhauzen, J. T. G. (2011). Organisational factors and teachers' professional development in Dutch secondary schools. *Journal of European Industrial Training*, 35(1), 24-44.
- Ezzy, D. (2002). *Qualitative analysis - practice and innovation*. London, UK: Routledge.
- Fisher, C. D., & Gitelson, R. (1983). A meta-analysis of the correlates of role conflict and ambiguity. *Journal of Applied Psychology*, 68(2), 20-333.
- Fletcher, D. & Fletcher, J. (2005). A meta-model of stress, emotions and performance: Conceptual foundations, theoretical framework, and research directions (Abstract). *Journal of Sports Sciences*, 23, 157-158.
- Fletcher, D. & Hanton, S. (2003). Sources of organizational stress in elite sport performers. *The Sport Psychologist*, 17, 175-195.
- Fletcher, D. & Scott, M. (2010). Psychological stress in sports coaches: A review of concepts, research, and practice. *Journal of Sports Sciences*, 28(2), 127-137.

- Fletcher, D., Hanton, S., & Mellalieu, S. D. (2006). An organizational stress review: conceptual and theoretical issues in competitive sport. In S.Hanton & S. D. Mellalieu (Eds.), *Literature reviews in sport psychology* (pp. 321-374). New York: Nova Science Publishers.
- Focht, B. C. & Hausenblas, H. (2001). Influence of quiet rest and acute aerobic exercise performed in a naturalistic environment on selected psychological responses. *Journal of Sport & Exercise Psychology, 23*, 108-121.
- Folkman, S. & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48*, 150-170.
- Fotinos-Ventouratos, R. & Cooper, C. (2005). The role of gender and social class in work-stress. *Journal of Managerial Psychology, 20*(1), 14-23.
- Frey, M. (2007). College coaches' experiences with stress - "problem solvers" have problems too. *The Sport Psychologist, 21*, 38-57.
- Gaudreau, P., Blondin, J. P., & Lapierre, A. M. (2002). Athletes' coping during a competition: Relationship of coping strategies with positive affect, negative affect, and performance goal discrepancy. *Psychology of Sport and Exercise, 3*, 125-150.
- Gerrard, B. (2004). Media ownership of teams: The latest stage in the commercialisation of team sports. In T. Slack (Ed.), *The commercialisation of sport* (pp. 247-266). London: Routledge.
- Giacobbi, P. R. J., & Weinberg, R. S. (2000). An examination of coping in sport: Individual trait anxiety differences and situational consistency. *The Sport Psychologist, 14*(1), 42-62.

- Giacobbi, P. R. J., Foore, B., & Weinberg, R. S. (2004). Broken clubs and expletives: The sources of stress and coping responses of skilled and moderately skilled golfers. *Journal of Applied Sport Psychology, 16*(2), 166-182.
- Gilbert, W., Côté, J., & Mallett, C. (2006). Developmental paths and activities of successful sport coaches. *International Journal of Sports Science and Coaching, 1*(1), 69-76.
- Gilbert, W., Lichtenwaldt, L., Gilbert, J., Zelezny, L., & Côté, J. (2009). Developmental profiles of successful high school coaches. *International Journal of Sports Sciences & Coaching, 4*(3), 415-431.
- Gilbert, W. D. & Trudel, P. (2001). Learning to coach through experience: Reflection in model youth sport coaches. *Journal of Teaching in Physical Education, 21*(1), 16.
- Gillespie, N. A., Walsh, M., Winefield, A. H., Dua, J., & Stough, C. (2001). Occupational stress in universities: staff perceptions of the causes, consequences, and moderators of stress. *Work and Stress, 15*(1), 53-72.
- Goodger, K., Gorley, T., Lavalley, D., & Harwood, C. (2007). Burnout in sport: A systematic review. *The Sport Psychologist, 21*, 127-151.
- Gordon, S. (1990). A mental skills training programme for the Western Australian state cricket team. *The Sport Psychologist, 4*, 386-399.
- Gorrell, J. J., Bregman, N. J., McAllister, H. A., & Lipscomb, T. J. (1985). An analysis of perceived stress in elementary and student teachers and full-time teachers. *Journal of Experimental Education, 54*, 11-14.
- Gould, D., Eklund, R. C., & Jackson, S. A. (1993). Coping strategies used by U.S. Olympic wrestlers. *Research Quarterly for Exercise and Sport, 64*(1), 83-93.

- Gould, D., Finch, L. M., & Jackson, S. A. (1993). Coping strategies utilized by national champion figure skaters. *Research Quarterly for Exercise and Sport*, 64, 453-468.
- Gould, D., Greenleaf, C., & Krane, V. (2002). Arousal-anxiety and sport behaviour. In T. S. Horn (Ed.), *Advances in sport psychology* (2nd ed.), (pp.207-241). Champaign IL: Human Kinetics.
- Gould, D., Guinan, D., Greenleaf, C., & Chung, Y. (2002). A survey of U.S. Olympic coaches: Variables perceived to have influenced athlete performances and coach effectiveness. *The Sport Psychologist*, 16, 229-250.
- Gould, D., Guinan, D., Greenleaf, C., Medbery, R., & Peterson, K. (1999). Factors affecting Olympic performance: Perceptions of athletes and coaches from more and less successful teams. *The Sport Psychologist*, 13, 371-394.
- Gould, D., Hodge, K., Peterson, K., & Petlichkoff, L. (1987). Psychological foundations of coaching: similarities and differences among intercollegiate wrestling coaches. *The Sport Psychologist*, 1(4), 293-308.
- Gould, D., Jackson, S. A., & Finch, L. M. (1993). Sources of stress in national champion figure skaters. *Journal of Sport and Exercise Psychology*, 15, 134-159.
- Gould, D., & Maynard, I. W. (2009). Psychological preparation for the Olympic Games. *Journal of Sports Sciences*, 27(13), 1393-1408.
- Gould, D. & Petlichkoff, (1988). Psychological stress and the age-group wrestler. In E.W. Brown & C. F. Branta (Eds.), *Competitive sports for children and youth: An overview of research and issues* (pp.63-73). Champaign, IL: Human Kinetics.
- Gould, D., Petlichkoff, L., Hodge, K., & Simons, J. Evaluating the effectiveness of a psychological skills educational workshop. *The Sport Psychologist*, 4(3), 249 - 260.

- Gould, D., Udry, E., Bridges, D., & Beck, L. (1997). Stress sources encountered when rehabilitating from season-ending ski injuries. *The Sport Psychologist, 11*(4), 361-378.
- Gould, D. Udry, E., Tuffey, S., & Loehr, J. (1996). Burnout in competitive junior tennis players: II. Qualitative analysis. *The Sport Psychologist, 10*(4), 341-366.
- Greenleaf, C., Gould, D., & Dieffenbach, K. (2001). Factors influencing Olympic performance: Interviews with Atlanta and Nagano US Olympians. *Journal of Applied Sport Psychology, 13*, 154-184.
- Griffith, C. R. (1925). Psychology and its relation to athletic competition. *American Physical Education Review, 30*, 193-199.
- Hall, C. R. & Rodgers, W. M. (1989). Enhancing coaching effectiveness in figure skating through and mental skills training programme. *The Sport Psychologist, 3*, 142-154.
- Hamilton, R. A., Scott, D., & MacDougall, M. P. (2007). Assessing the effectiveness of self-talk interventions on endurance performance. *Journal of Applied Sport Psychology, 19*, 226-239.
- Hanton, S. & Connaughton, D. (2002). Perceived control of anxiety and its relationship to self-confidence and performance: A qualitative inquiry. *Research Quarterly for Exercise and Sport, 73*, 87-97.
- Hanton, S. & Fletcher, D. (2005). Organizational stress in competitive sport: More than we bargained for? *International Journal of Sport Psychology, 36*, 273-283.
- Hanton, S., Fletcher, D., & Coughlan, G. (2005). Stress in elite sport performers: A comparative study of competitive and organizational stressors. *Journal of Sports Sciences, 23*(10), 1129-1141.

- Hanton, S. & Jones, G. (1999). The effects of a multimodal intervention programme on performers: II. Training the butterflies to fly in formation. *The Sport Psychologist*, 13, 22-41.
- Happ, C. K. (1998). Hardiness levels and coping strategies of female head women basketball coaches in the National Collegiate Athletic Association. *Kinesiology Publications*, Abstract only: Microform Publications, University of Oregon.
<http://kinpubs.uoregon.edu/>
- Hardy, L. Jones, G., & Gould, D. (1996). *Understanding psychological preparation for sport: Theory and practice of elite performers*. Chichester: Wiley.
- Hatzigeorgiadis, A., Zourbanos, N., Mpoumpaki, S., & Theodorakis, Y. (2009). Mechanisms underlying the self-talk–performance relationship: The effects of motivational self-talk on self-confidence and anxiety. *Psychology of Sport & Exercise*, 10(1), 186-192.
- Hays, K., Thomas, O., Maynard, I., & Bawden, M. (2009). The role of confidence in world-class sport performance. *Journal of Sports Sciences*, 27, 1185-1199.
- Hoar, S. D., Kowalski, K. C., Gaudreau, P., & Crocker, P. R. E. (2006). A review of coping in sport. In S.Hanton & S.D. Mellalieu (Eds.), *Literature reviews in sport psychology* (pp. 47-90). New York: Nova Science Publishers.
- Holmes, T. H. & Rahe, R. H. (1967). The social readjustment scale. *Journal of Psychosomatic Research*, 11, 213-218.
- Holmes, T. H. (1970). Psychological screening. In *Football injuries: Papers presented at a workshop* (sponsored by the Subcommittee on Athletic Injuries, Committee on the Skeletal System, Division of Medical Sciences, National Research Council, pp.211-214). Washington, DC: National Academy of Sciences.

- Holt, N. L. & Hogg, J. M. (2002). Perceptions of stress and coping during preparations for the 1999 Women's Soccer World Cup Finals. *The Sport Psychologist, 16*, 251-271.
- Holt, N. L. (2003). Coping in professional sport: A case study of an experienced cricket player. *Athletic Insight, 5*, Article 1 (available at: <http://www.athleticinsight.com/Vol5Iss1/CricketPlayerCoping.htm>; accessed 18 June, 2009).
- Horn, T. S. (2008). Coaching effectiveness in the sport domain. In T.S. Horn (Ed.), *Advances in sport psychology* (3rd ed.), (pp.239-268). Champaign IL: Human Kinetics.
- House, R. J., & Rizzo, J. R. (1972). Role conflict and ambiguity as critical variables in a model of organizational behavior. *Organizational Behavior & Human Performance, 7*(3), 467-505.
- Hunt, K.R. (1984). The relationship between occupational stressors and burnout among coaches (Doctoral dissertation, University of Iowa, 1984). *Dissertation Abstracts International, 44*, 2406.
- International Olympic Committee. (2009). Games of the XXIX Olympiad, Beijing 2008 Global Television and Online Media Report.
- Jackson, S. E., & Schuler, R. S. (1985). A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings. *Organizational Behavior and Human Decision Processes, 36*(1), 16-78.
- Jaloweic, A. & Powers, M. J. (1981). Stress and coping in hypertensive and emergency room patients. *Nursing Research, 30*(1), 10-15.
- Janelle, C. (1999). Ironic mental processes in sport: Implications for sport psychologists. *The Sport Psychologist, 13*, 201-220.

- Janssen, J., & Dale, G. (2002). *The seven secrets of successful coaches: How to unlock your team's full potential*. Cary, NC: Winning the Mental Game.
- Jones, G. (1990). A cognitive perspective on the processes underlying the relationship between stress and performance in sport. In G. Jones and L. Hardy (Eds.), *Stress and performance in sport* (pp. 17-42). Chichester, UK: Wiley.
- Jones, G. (1995). More than just a game: Research developments and issues in competitive anxiety in sport. *British Journal of Psychology*, *86*, 449-478.
- Jones, G. (2002). Performance excellence: A personal perspective on the link between sport and business. *Journal of Applied Sport Psychology*, *14*, 268-281.
- Jones, G., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Journal of Applied Sport Psychology*, *14*, 205-218.
- Jones, G., Hanton, S., & Connaughton, D. (2007). A framework of mental toughness in the world's best performers. *The Sport Psychologist*, *21*, 243-264.
- Jones, G. & Hardy, L. (1990). The academic study of stress in sport. In G. Jones & L. Hardy (Eds.), *Stress and performance in sport*. Chichester: John Wiley & Sons Ltd.
- Jones, G. & Swain, A. B. J. (1992). Intensity and direction dimensions of competitive state anxiety and relationships with competitiveness. *Perceptual and Motor Skills*, *74*, 467-472.
- Jones, G., Swain, A., & Hardy, L. (1993). Intensity and direction dimensions of competitive state anxiety and relationships with performance. *Journal of Sports Sciences*, *11*, 525-532.
- Jones, R. L. (2000). Toward a sociology of coaching. In R. L. Jones & K. M. Armour (Eds.), *The sociology of sport: Theory and practice* (pp.33-43). London: Addison Wesley Longman.

- Jowett, S. & Cockerill, I. M. (2003). Olympic medallists' perspective of the athlete-coach relationship. *Psychology of Sport and Exercise*, 4, 313-331.
- Jowett, S. (2005). The coach-athlete partnership. *The Psychologist. Special Issue: Enabled*, 18(7), 412-415.
- Jowett, S. (2008). What makes coaches tick? The impact of coaches' intrinsic and extrinsic motives on their own satisfaction and that of their athletes. *Scandinavian Journal of Medicine and Science in Sports*, 18, 664-673.
- Kahn, R. L. (1964) *Organizational stress: studies in role conflict and ambiguity*. New York: Wiley
- Kahn, R. L., & French, J. R. P. (1962). A summary and some tentative conclusions. *Journal of Social Issues*, 18(3), 122-127.
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, D. J., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity*. Oxford, England: John Wiley.
- Kahn, R. L., & Byosiere, P. (1992). Stress in organisations. In M. D. Dunnette (Ed.), *Handbook of industrial and organisational psychology* (pp.571-648). Chicago: Rand McNally.
- Kaufmann, G. M. & Beehr, T. A. (2000). Interactions between job stressors and social support: Some counterintuitive results. *Journal of Applied Psychology*, 71(3), 522-526.
- Kelley, B. C. & Gill, D. L. (1993). An examination of personal/situational variables, stress appraisal, and burnout in collegiate teacher-coaches. *Research Quarterly for Exercise and Sport*, 64(1), 94-102.
- Kelley, B. C. (1994). A model of stress and burnout in collegiate coaches: effects of gender and time of season. *Research Quarterly for Exercise and Sport*, 65(1), 48-58.

- Kelley, B. C., & Baghurst, T. (2009). Development of the Coaching Issues Survey (CIS). *The Sport Psychologist, 23*, 367-387.
- Kelly, G. A. (1955). *The psychology of personal constructs*. Vols. I & II. New York: Norton.
- Kidd, T. R. (1979). Social-psychological characteristics of physical educators and coaches. *Review of Sport and Leisure, 4*(1), 26-39.
- Kilty, K. (2006). Women in coaching. *The Sport Psychologist, 20*, 222-234.
- Kinicki, A. J., McKee, F. M., & Wade, K. J. (1996). Annual review, 1991-1995: occupational health. *Journal of Vocational Behaviour, 49*, 190-220.
- Kirschenbaum, D. S. & Bale, R. M. (1984). Cognitive behavioural skills in sports: Application to golf and speculations about soccer. In W. F. Straub and J. M. Williams (Eds.), *Cognitive sport psychology* (pp. 275-288). Lansing, NY: Sport Science Associates.
- Knoppers, A. (1994). Gender and the coaching profession. In S. Birrell & C. L. Cole (Eds.), *Women, sport, and culture* (pp. 119-133). Champaign, IL: Human Kinetics.
- Kosa, B. (1990). Teacher-coach burnout and coping strategies. *Physical Educator, 47*(3), 153-158.
- Kristiansen, E., & Roberts, G. C. (2009). Young elite athletes and social support: Coping with competitive and organizational stress in "Olympic" competition. *Scandinavian Journal of Medicine and Science in Sports, 20*(4), 686-695.
- Kroll, W. & Gundersheim, J. (1982). Stress factors in coaching. *Coaching Science Update, 23*, 47-49.
- Lafrenière, M. K., Jowett, S., Vallerand, R. J., Donahue, E. G., & Lorimer, R. (2008). Passion in sport: On the quality of the coach-athlete relationship. *Journal of Sport & Exercise Psychology, 30*(5), 541-561.

- LaVoi, N. M. (2007). Interpersonal communication and conflict in the coach-athlete relationship. In S. Jowett & D. Lavallee (Eds.), *Social psychology in sport* (pp. 29-40). Champaign, IL: Human Kinetics.
- Lazarus, R. S. (2000a). How emotions influence performance in competitive sports. *The Sport Psychologist*, 14(3), 229-252.
- Lazarus, R.S. (2000b). Toward better research on stress and coping. *American Psychologist*, 55(6), 665-673.
- Lazarus, R.S. (2006). *Stress and emotion: A new synthesis*. New York: Springer.
- Lazarus, R. S. & Cohen, J. B. (1977) Environmental stress. In I. Attman & J.F. Wohlwill (Eds.), *Human behavior and environment. Current theory and research*. New York: Plenum Press.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer.
- Lazarus, R. S. & Launier, R. (1978). Stress-related transactions between person and environment. In L. A. Pervin and M. Lewis (Eds.), *Perspectives in Interactional Psychology* (pp. 287-327). New York: Plenum.
- Lazarus, R. S., Deese, J., & Osler, S. F. (1952). The effects of psychological stress on performance. *Psychological Bulletin*, 49(4), 293-317.
- Levy, A., Nicholls, A., Marchant, D., & Polman, R. (2009). Organizational stressors, coping, and coping effectiveness: A longitudinal study with an elite coach. *International Journal of Sports Science and Coaching*, 4, 31-45.
- Loehr, J., & Schwartz, T. (2001). The making of a corporate athlete. *Harvard Business Review*, January, 120-128.
- Lyle, J. (1999). Coaching philosophy and coaching behaviour. In N. Cross & J. Lyle (Eds.), *The coaching process: Principles and practice for sport* (pp. 25-46). Oxford: Butterworth-Heinemann.

- Lyle, J. (2002). *Sports coaching concepts: A framework for coaches' behaviour*. London: Routledge.
- Lynch, M., & Mallett, C. (2006). Becoming a successful high performance track and field coach. *Modern Athlete and Coach*, 44, 15-20.
- Madden, C. C., Kirby, R. J., & McDonald, D. (1989). Coping styles of competitive middle distance runners. *International Journal of Sport Psychology*, 20, 287-296.
- Mallett, C. J., Trudel, P., Lyle, J., & Rynne, S. B. (2009). Formal vs. informal coach education. *International Journal of Sports Science & Coaching*, 4(3), 325-334.
- Martens, R. (2004). *Successful Coaching*. Champaign, IL: Human Kinetics.
- Martens, R., Burton, D., Vealy, R. S., Bump, L. A., & Smith, D. E. (1990). Development and validation of the Competitive State Anxiety Inventory-2. In R. Martens, R. S. Vealy, & D. Burton (Eds.), *Competitive Anxiety in Sport* (pp.117-190). Champaign IL: Human Kinetics.
- Maslach, C., & Jackson, S. E. (1986). *MBI: Maslach Burnout Inventory; Manual Research Edition*. Palo Alto, CA: Consulting Psychologists Press.
- Maynard, I. W. & Cotton, P. C. J. (1993). An investigation of two stress-management techniques in a field setting. *The Sport Psychologist*, 7, 375-387.
- McCann, S. (1997). Overcoaching and undercoaching: What pressure can do to coaches. *Olympic Coach*, 7, 12.
- McCann, S. C. (2000). Doing sport psychology at the really big show. In M. B. Andersen (Ed.), *Doing sport psychology* (pp. 209-222). Champaign, IL: Human Kinetics.
- McGrath, J.E. (1970). Major methodological issues. In J. E. McGrath (Ed.), *Social and psychological factors in stress* (pp.41-57). New York: Holt, Rinehart and Winston.

- McKay, J., Niven, A. G., Lavallee, D. White, A. (2008). Sources of strain among elite UK track athletes. *The Sport Psychologist*, 22, 143-163.
- McKenna, J. & Mutrie, N. (2003). Emphasising quality in qualitative papers. *Journal of Sports Sciences*, 21, 955-958.
- Mechikoff, R. A., & Kozar, B. (1983). Sport psychology: The coach's perspective. Springfield, IL: C.C. Thomas.
- Mellalieu, S. D., Neil, R., Hanton, S., & Fletcher, D. (2009). Competition stress in sport performers: Stressors experienced in the competition environment. *Journal of Sports Sciences*, 27, 729-744.
- Meyers, A. W. & Schleser, R. A. (1980). A cognitive behavioural intervention for improving basketball performance. *Journal of Sport Psychology*, 2, 69-73.
- Miles, M. B. & Huberman, A.M. (1994). *Qualitative Data Analysis* (2nd ed.). Thousand Oaks, CA: Sage.
- Muchinsky, P. M. (2000) *Psychology applied to work*. USA: Wadsworth Thomson Learning.
- Narayanan, L., Menon, S., & Spector, P. E. (1999). Stress in the workplace: a comparison of gender and occupations. *Journal of Organisational Behaviour*, 20, 63-73.
- Nash, C. S., & Sproule, J. (2009). Career development of expert coaches. *International Journal of Sports Science & Coaching*, 4(1), 121-138.
- Nelson, L. J., Cushion, C. J., & Potrac, P. (2006). Formal, nonformal and informal coach learning: A holistic conceptualisation. *International Journal of Sports Science and Coaching*, 1(3), 247-259.
- Nicholls, A. R., Holt, N. L., & Polman, R. C. J. (2005a). A phenomenological analysis of coping effectiveness in golf. *The Sport Psychologist*, 19, 111-130.

- Nicholls, A. R., Holt, N. L., & Polman, R. C. J. (2005b). Think aloud: Performance relates stressors and coping during golf performance. *Journal of Sports Sciences*, 23, 1266.
- Nicholls, A. R., Holt, N. L., Polman, R. C. J., & Bloomfield, J. (2006). Stressors, coping, and coping effectiveness among professional rugby union players. *The Sport Psychologist*, 20, 314-329.
- Nicholls, A. R., Holt, N. L., Polman, R. C. J., & James, D. W. G. (2005). Stress, coping, and coping effectiveness among international adolescent golfers. *Journal of Applied Sport Psychology*, 17, 333-340.
- Nicholls, A. R., Levy, A. R., Grice, A., & Polman, R. C. J. (2009). Stress appraisals, coping, and coping effectiveness among international cross-country runners during training and competition. *European Journal of Sport Science*, 9(5), 285-293.
- Nicholls, A. R., & Polman, R. C. J. (2007). Coping in sport: A systematic review. *Journal of Sports Sciences*, 25(1), 11-31.
- Noblet, A. J. & Gifford, S. M. (2002). The sources of stress experienced by professional Australian footballers. *Journal of Applied Sport Psychology*, 14, 1-13.
- Ntoumanis, N. & Biddle, S. J. H. (1998). The relationship of coping and its perceived effectiveness to positive and negative affect in sport. *Personality and Individual Differences*, 24, 773-788.
- Ntoumanis, N. & Biddle, S. J. H. (2000). Relationship of intensity and direction of competitive anxiety with coping strategies. *The Sport Psychologist*, 14, 360-371.
- Olusoga, P., Butt, J., Hays, K., & Maynard, I. W. (2009). Stress in elite sports coaching: Identifying stressors. *Journal of Applied Sport Psychology*, 21(4), 442-459.
- Olusoga, P., Butt, J., Maynard, I. W., & Hays, K. (2010). Stress and coping: A study of world class coaches. *Journal of Applied Sport Psychology*, 22(3), 274-293.

- Olusoga, P., Maynard, I., Hays, K., & Butt, J. (2012). Coaching under pressure: A study of Olympic coaches. *Journal of Sports Sciences, 30*(3), 229-239.
- Orlick, T., & Partington, J. (1988). Mental links to excellence. *The Sport Psychologist, 2*, 105-130.
- Parfitt, C. G., Jones, G., & Hardy, L. (1990). Multidimensional anxiety and performance. In G. Jones & L. Hardy (Eds.), *Stress and performance in sport* (pp.43-80). Chichester: Wiley.
- Park, J. K. (2000). Coping strategies used by Korean national athletes. *The Sport Psychologist, 14*, 63-80.
- Pastore, D.L. (1991). Male and female coaches of women's athletic teams: Reasons for entering and leaving the profession. *Journal of Sport Management, 5*, 128-143.
- Patrick, T. D. & Hrycaiko, D. W. (1998). Effects of a mental training package on an endurance performance. *The Sport Psychologist, 12*, 283-299.
- Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Pidgeon, N., & Henwood, K. (1997). Using grounded theory in psychological research. In N. Hayes (Ed.), *Doing qualitative analysis in psychology*. Hove: Psychology Press.
- Pines, A. (1993). Burnout: an existential perspective. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 35-51). Washington, DC: Taylor & Francis.
- Poczwardowski, A., & Conroy, D. E. (2002). Coping responses to failure and success among elite athletes and performing artists. *Journal of Applied Sport Psychology, 14*, 313-329.

- Price, M. S. & Weiss, M. R. (2000). Relationships among coach burnout, coach behaviours, and athletes' psychological responses. *The Sport Psychologist*, 14, 391-409.
- Pritchard, C. (2000). *Making managers in universities and colleges*. Buckingham, UK: Open University Press.
- Prymachuck, S. & Richards, D. (2007). Mental health nursing students differ from other nursing students: Some observations from a study on stress and coping. *International Journal of Mental Health Nursing*, 16(6), 390-402.
- Quinlan, D. (2002). More art than science: Top coach Dennis Quinlan joins the ongoing distance running debate. *Athletics Weekly*, 56, 26-27.
- Raedeke, T. D., Granzky, T. L., & Warren, A. (2000). Why coaches experience burnout: A commitment perspective. *Journal of Sport and Exercise Psychology*, 22, 85-105.
- Raedeke, T. D., Lunney, K., & Venables, K. (2002). Understanding athlete burnout: Coach perspectives. *Journal of Sport Behavior*, 25(2), 181-206.
- Rainey, D. W. (1995). Stress, burnout, and intention to terminate among umpires. *Journal of Sport Behaviour*, 18(3), 312-323.
- Rainey, D. W. (1999). Sources of stress, burnout and intention to terminate among basketball referees. *Journal of Sport Behaviour*, 22(4), 578-590.
- Ravizza, K. (2010). Increasing awareness for sport performance. In J. M. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (6th ed.), (pp.189-198). New York: McGraw-Hill.
- Reade, I., Rodgers, W., & Spriggs, K. (2008). New ideas for high performance coaches: A case study of knowledge transfer in sport science. *International Journal of Sports Science & Coaching*, 3(3), 335-354.

- Rees, T., Hardy, L., & Freeman, P. (2007). Stressors, social support, and effects upon performance in golf. *Journal of Sports Sciences*, 25(1), 33-42.
- Reeves, C. W., Nicholls, A. R., & McKenna, J. (2009). Stressors and coping strategies among early and middle adolescent Premier League academy soccer players: Differences according to age. *Journal of Applied Sport Psychology*, 21(1), 31-48.
- Risley, T., & Hart, B. (1986). Developing correspondence between the non-verbal and verbal behaviour of preschool children. *Journal of Behavioural Analysis*, 1, 267-281.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15(2), 150-163.
- Ryska, T. A.. (2002). Leadership styles and occupational stress among college athletic directors: The moderating effect of program goals. *The Journal of Psychology*, 136(2), 195-213.
- Sales, S. M. (1970). Some effects of role overload and role underload. *Organizational Behavior and Human Performance*, 5, 592-608.
- Savoy, C. (1993). A yearly training program for a college basketball player. *The Sport Psychologist*, 7, 173-190.
- Scanlan, T. K., Stein, G. L., & Ravizza, K. (1989). An in-depth study of former elite figure skaters: II. Sources of Enjoyment. *Journal of Sport and Exercise Psychology*, 11, 65-83.
- Scanlan, T. K., Stein, G. L., & Ravizza, K. (1991). An in-depth study of former elite figure skaters: III. Sources of stress. *Journal of Sport and Exercise Psychology*, 13, 103-120.
- Schaufeli, W. B. & Buunk, B. P. (2003). Burnout: An overview of 25 years of research and theorizing. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.),

- The handbook of work and health psychology* (3rd ed.), (pp. 383-425).
Chichester: Wiley.
- Schmidt, G.W., & Stein, G. L. (1991). Sport commitment: A model integrating enjoyment, dropout, and burnout. *Journal of Sport and Exercise Psychology*, *13*, 253-265.
- Schmidt, K. (2007). Organizational commitment: A further moderator in the relationship between work stress and strain? *International Journal of Stress Management*, *14*(1), 26-40.
- Schutte, N., Toppinen, S., Kalimo, R., & Schaufeli, W. (2000). The factorial validity of the Maslach Burnout Inventory - General Survey (MBI - GS) across occupational groups and nations. *Journal of Occupational and Organizational Psychology*, *73*(1), 53-66
- Seabourne, T. G., Weinberg, R. S., Jackson, A., & Suinn, R. (1985). Effect of individualized nonindividualized and packaged intervention strategies on karate performance. *Journal of Sport Psychology*, *7*, 40-50.
- Selye, H. (1936). A syndrome produced by diverse noxious agents. *Nature*, *138*, 32.
- Shambrook, C. J., & Bull, S. J. (1996). The use of a single-case research design to investigate the efficacy of imagery training. *Journal of Applied Sport Psychology*, *8*(1), 27-43.
- Shoenfelt, E. L., & Griffith, A. U. (2008). Evaluation of a mental skills program for serving for an intercollegiate volleyball team. *Perceptual and Motor Skills*, *107*(1), 293-306.
- Silva, J. M. (1984). The status of sport psychology: a national survey of coaches. *Journal of Physical Education, Recreation & Dance*, *55*(7), 46-49.
- Smith, R. (1986). Toward a cognitive-affective model of athletic burnout. *Journal of Sport Psychology*, *8*, 36-50.

- Sparkes, A. C. (1998). Validity in qualitative enquiry and the problem of criteria: Implications for sport psychology. *The Sport Psychologist, 12*, 363-386.
- Spinks, W. L. (1997). Sports research and the coach. *Sports Coach, 19*, 18-19.
- Suinn, R. M. (2005). Behavioral intervention for stress management in sports. *International Journal of Stress Management, 12*(4), 343-362.
- Sullivan, P. A. & Nashman, H. W. (1993). The 1992 United States Olympic Team sport coaches: Satisfactions and concerns. *Applied Research in Coaching and Athletics Annual, March*, 1-4.
- Taylor, J. (1992). Coaches are people too: An applied model of stress management for sports coaches. *Journal of Applied Sport Psychology, 4*, 27-50.
- Thelwell, R. C. & Greenlees, I. A. (2001). The effects of a mental skills training package on gymnasium triathlon performance. *The Sport Psychologist, 15*(2), 127-141.
- Thelwell, R. C. & Greenlees, I. A. (2003). Developing competitive endurance performance using mental skills training. *The Sport Psychologist, 17*, 318-337.
- Thelwell, R. C., Weston, N. J. V., & Greenlees, I. A. (2005). Towards an understanding of mental toughness within soccer. *Journal of Applied Sport Psychology, 17*, 326-332.
- Thelwell, R. C., Weston, N. J. V., & Greenlees, I. A. (2007). Batting on a sticky wicket: Identifying sources of stress and associated coping strategies for professional cricket batsmen. *Psychology of Sport and Exercise, 8*, 219-232.
- Thelwell, R. C., Weston, N. J. V., Greenlees, I. A., & Hutchings, N.V. (2008a). A qualitative exploration of psychological-skills use in coaches. *The Sport Psychologist, 22*(1), 38-53.

- Thelwell, R. C., Weston, N. J. V., Greenlees, I. A., & Hutchings, N. V. (2008b). Stressors in elite sport: A coach perspective. *Journal of Sports Sciences, 26*, 905-918.
- Thibault, L. (2009), Globalization of sport: An inconvenient truth. *Journal of Sport Management, 23*, 1-20.
- Thompson, B. M., Kirk, A., & Brown, D. (2006). Sources of stress in policewomen: A three-factor model. *International Journal of Stress Management, 13*(3), 309-328.
- Travers, C. J. & Cooper, C. L. (1996). *Teachers under pressure: Stress in the teaching profession*. London: Routledge.
- Trudel, P., & Gilbert, W. D. (2006). Coaching and coach education. In D. Kirk, M. O'Sullivan, & M. McDonald (Eds.), *Handbook of physical education* (pp. 516-539). London: Sage.
- Tsorbatzoudis, H., Kassidis-Rodafinos, A., Partemian, S., & Grouios, G. (2005). Sources of stress among Greek team handball referees: Construction and validation of the handball officials' sources of stress survey. *Perceptual and Motor Skills, 100*, 821-830.
- UK Sport. (2000). *The UK vision for coaching*. London: UK Sport.
- UK Sport. (2006) [online]. Last accessed 10 March, 2011 at:
<http://www.uk sport.gov.uk/news/2302/>
- UK Sport. (2009). [online]. Last accessed 10 March, 2011 at:
www.uk sport.gov.uk/pages/summer_olympic_sports_-_london_2012/
- Vallerand, R. J., Blanchard, C. M., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., et al. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology, 85*, 756-767.

- Van Sell, M., Brief, S. P., & Schuler, R. S. (1981). Role conflict and role ambiguity: Integration of the literature and directions for future research. *Human Relations*, 34(1), 43-71.
- Vealey, R. S. (1994). Current status and prominent issues in sport psychology intervention. *Medicine and Sciences in Sport and Exercise*, 26, 495-502.
- Vealey, R.S., Armstrong, L., Comar, W., & Greenleaf, C.A. (1998). Influence of perceived coaching behaviours on burnout and competitive anxiety in female college athletes. *Journal of Applied Sport Psychology*, 10, 297-318.
- Vealey, R. S., Udry, E.M., Zimmerman, V., & Soliday, J. (1992). Intrapersonal and situational predictors of coaching burnout. *Journal of Sport and Exercise Psychology*, 14, 40-58.
- Wang, J. & Ramsey, J. (1998). The relationship of school type, coaching experience, gender and age to new coaches' challenges and barriers at the collegiate level. *Applied Research in Coaching and Athletics*, 13, 1-22.
- Ward, P., & Carnes, M. (2002). Effects of posting self-set goals on collegiate football players' skill execution during practice and games. *Journal of Applied Behavior Analysis*, 35(1), 1-12.
- Weinberg, R., Butt, J., & Knight, B. (2001). High school coaches' perceptions of the process of goal setting. *The Sport Psychologist*, 15(1), 20-47.
- Weinberg, R. S., Butt, J., Knight, J., Perritt, N. (2001). Collegiate Coaches' Perceptions of Their Goal Setting Practices: A Qualitative Investigation. *The Journal of Applied Sport Psychology*, 13(4), 374-398.
- Westerbeek, H. & Smith, A. (2003). *Sport Business in the Global Marketplace*. Basingstoke, UK: MacMillan.

- Weston, J. V., Thelwell, R. C. Bond, S., & Hutchings, N. V. (2009). Stress and coping in single-handed round-the-world ocean sailing. *Journal of Applied Sport Psychology, 21*, 460-474.
- Willey, A., (2010). Champions League Final Tops Super Bowl in TV Survey [online]. Last accessed 10 March 2011 at: <http://www.reuters.com/article/2010/01/31/us-soccer-nfl-television-idUSTRE60U19U20100131>
- Williams, J. M. & Straub, W. F. (2006). Sport psychology: Past present, future. In J. M. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (5th ed.), (pp.1-14). New York: McGraw-Hill.
- Williams, J.M. (2006). *Applied sport psychology: Personal growth to peak performance*. New York: McGraw-Hill.
- Williams, S. J. & Kendall, L. (2007). Perceptions of elite coaches and sports scientists of the research needs for elite coaching practice. *Journal of Sports Sciences, 25*(14), 1577-1586.
- Williams, J. M., Nideffer, R. M., Wilson, V. E., Sagal, M., & Peper, E. (2010). Concentration and strategies for controlling it. In J. M. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (6th ed.), (pp.336-358). New York: McGraw-Hill.
- Wimbledon Championships (2010). Wimbledon 2010 in Numbers [online]. Last accessed 10 February, 2011 at: http://2010.wimbledon.org/en_GB/news/articles/2010-07-06/201007071278484605882.html.
- Winefield, A. H. & Jarrett, R. (2001). Occupational stress in university staff. *International Journal of Stress Management, 8*(4), 285-298.
- Woodman, T. & Hardy, L. (2001). A case study of organizational stress in elite sport. *Journal of Applied Sport Psychology, 13*, 207-238.

- Yerkes, R.M. & Dodson, J.D. (1908). The relation of strength of stimulus to rapidity of habit formation. *Journal of Comparative Neurology and Psychology*, 18, 459-482.
- Yukelson, D. (2010). Communicating effectively. In J. M. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (6th ed.), (pp.149-165). New York: McGraw-Hill.
- Zinsler, N., Bunker, L., & Williams, J. M. (2010). Cognitive techniques for building confidence and enhancing performance. In J.M, Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (6th ed.) (pp.305-335). New York: McGraw-Hill.

Word Count

63,500 words.

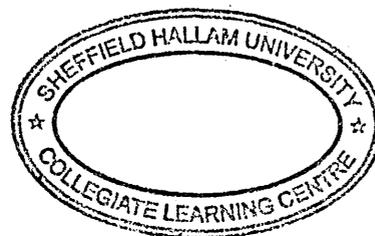
Stress & Coping: A Study of Elite Sports Coaches

Appendices

Peter Olusoga

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy

October, 2011



Appendices

Appendix A

Ethics Approval for Study One and Two

Ethics application forms

Risk assessment forms

Participant information sheet

Informed consent form

CONFIDENTIAL

	<p><i>Sheffield Hallam University</i></p> <p>Faculty of Health and Wellbeing Research Ethics Committee</p> <p>Sport and Exercise Research Ethics Review Group</p> <p>APPLICATION FOR APPROVAL OF RESEARCH</p>	
---	---	--

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Ethics Committee before approving a project. ALL of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

2. Anticipated Date of Completion	March, 2008
--	-------------

3. Title of Investigation	Stress in Elite Sports Coaching: Stressors, Consequences and Coping Strategies of World Class Sports Coaches.
----------------------------------	---

4. Subject Area	Sport and Performance Psychology
------------------------	----------------------------------

5. Principal Investigator Name	Peter Olusoga
Email address	p.ulusoga@shu.ac.uk
Telephone/mobile number	0114 225 5752 (work) 07921 465926 (mobile)
Student number	

6. Is this		
6.1 a research project? [YES]		
6.2 an undergraduate project? []	Module Name	Module Number
6.3 a postgraduate project? []		

7. Director of Studies/ Supervisor/Tutor	Prof. Ian Maynard, Dr. Joanne Butt, Kate Hays
---	---

8. Intended duration and timing of project	May 2007	Preparation of participant list and initial contact with potential participants
	Jun - ongoing	Recruitment of participants
	Jul - Aug 2007	Pilot testing and reviewing of interview guide.
	Sep - Dec 2007	Conduct and transcribe interviews
	Dec - Jan 2007/2008	Content analysis
	Jan - Feb 2008	Write up of study 1

9. Location of project (If parts are external to SHU, provide evidence in support in section 19)	
--	--

10. Is this study	
10.1 Collaborative? [NO]	If yes please include appropriate agreements in section 19
10.2.1 Replication [] of	
10.2.2 New [YES]	No research of this type has yet investigated stress experiences of elite sports coaches in the UK.

11. Participants	
11.1 Number	16 (male=8, female=8)
11.2 Rationale for this number: (eg calculations of sample size)	<p>The sample for this study will be purposefully selected (Patton, 2002) in order to provide a depth and richness to the information gathered.</p> <p>Based on previous qualitative research of this type (Hanton, Mellalieu, & Young, 2002; Hanton & Connaughton, 2002; Holt & Hogg, 2002; Bull, Shambrook, James, & Brooks, 2005), a total of 16 participants (8 male and 8 female) will be selected. This number also takes into account the practicality of conducting, transcribing, and analysing interviews within the timescale.</p>
11.3 Criteria for inclusion and exclusion for example age and gender:	The criteria for 'elite' coaches adopted in this research are as follows. Coaches must be over 18 years of age and must have experience of coaching at a major championship event in their sport (Olympic Games, World Championships, Commonwealth Games).
11.4 Procedures for recruitment for example location and methods:	Purposive criterion sampling (Patton, 2002) will be used to select potential participants for this investigation. All coaches will be contacted initially via email and invited to participate. It will be made clear that participation is voluntary and the nature and purpose of the study will be explained. Coaches will be assured that their comments will remain anonymous and data be treated confidentially. For the coaches who agree to participate, convenient times and locations for the interviews will be agreed.
11.5 Does the study have *minors or ‡vulnerable adults as participants?	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
11.6 Is CRB disclosure required for the Principal Investigator? (To be determined by risk assessment)	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>] If yes, is standard [<input type="checkbox"/>] or enhanced [<input type="checkbox"/>] disclosure required?
11.7 If you ticked 'Yes' in 11.5 and 'No' in 11.6 please explain why:	
<p>*Minors are participants under the age of 18 years. ‡Vulnerable adults are participants over the age of 16 years who are likely to exhibit: a) learning difficulties b) physical illness/impairment c) mental illness/impairment d) advanced age e) any other condition that might render them vulnerable</p>	

12. Purpose and benefit of investigation

Statement of the research problem with any necessary background information.

(No more than 1 side of A4)

The study of stress in elite sport has been heavily influenced by Lazarus' (1966) transactional definition of stress in which the emphasis is placed on the dynamic relationship between environmental demands (stressors) and an individual's psychological resources for dealing with them (coping ability; hardiness), with stress responses (strain) resulting from a perceived imbalance between these demands and resources. In short, the meaning constructed by an individual about his or her relationship with the environment is pivotal in his or her experience of stress. However, the areas receiving most attention have been stressors and the effects of stress responses (namely anxiety) on the performance of elite athletes (e.g. Holt & Hogg, 2002). Recent research has demonstrated the important impact that organisational factors have on the stress experiences of elite athletes (Hanton, Fletcher, & Connaughton, 2005). However, Woodman and Hardy (2001) suggest that if we are to gain a better understanding of stress in sport organisations, there is a need to study the stress experiences of 'non-performing' members of such organisations.

Early research focused on the stressors experienced by elite and champion athletes (e.g. Giacobbi, Foore, & Weinberg, 2004; Gould, Jackson, & Finch, 1993; Nicholls, Holt, Polman, & Bloomfield, 2006; Noblet & Gifford, 2002; Scanlan, Stein, & Ravizza, 1991). Woodman and Hardy (2001) suggest that such studies are valuable in enhancing our understanding of athletes' stressful experiences, but have often failed to examine the origins of stressors. Woodman and Hardy conducted an interview based study and categorised emergent themes into four general dimensions (deductively, based on Carron's 1982 model of group cohesion). Specifically; environmental issues, personal issues, leadership issues, and team issues. Fletcher and Hanton (2003) extended the literature by sampling from a variety of sports and the emergent themes were found to be similar to those in Woodman and Hardy's study. Specifically, these studies emphasised the importance of organisational factors in athletes' experiences of stress.

Two stressors consistently mentioned by athletes are 'coaches' and 'coaching style'. However, coaches themselves have received little research attention. Throughout the 1980s and early 1990s research examining burnout in coaches increased in popularity (Caccese & Mayerberg, 1984; Capel, Sisley, & Desertrain, 1987; Kelley, 1994; Kelley & Gill, 1993). Most of these studies *assumed* role conflict and role ambiguity to be the major stressors, although Narayanan, Menon, and Spector (1999), suggested that role ambiguity and conflict are rarely mentioned as stressors in the workplace. Much more recently, Frey (2007) conducted interviews with 10 US college coaches and identified 5 major themes that characterised their experiences of stress, including 'sources of stress', 'perceived effects of stress', and 'coping strategies'. Coaches seemed aware that their responses to stress could impact upon their athletes and, importantly, a number of stressors were described as increasing a coach's likelihood to leave the profession.

Research into coach stress has largely focused on dual-role teacher-coaches in educational establishments in the USA. Since research into organisational stress has shown that stressors can emerge as a direct consequence of the organisational climate, the stress experiences of elite sports coaches in UK organisations are likely to be significantly different. Given the importance of the coach-athlete relationship in fostering peak performance, the aim of this research is to explore, in depth, the stress experiences of elite UK sports coaches. More specifically, potential stressors will be identified and the affective, behavioural, and cognitive responses to identified stressors will be explored in detail, including an examination of coaches' choices of coping strategies and perceptions of coping effectiveness. The findings will be discussed in relation to Lazarus' transactional conceptualisation of stress and the research will then be used to inform the design and development of interventions aimed at reducing unwanted stress.

14. Indicative methods of analysis

14.1 Provide details of the quantitative and qualitative analysis to be used.

Each interview will be conducted by the primary investigator, will be tape recorded, and transcribed verbatim. The content and transcriptions of each interview will be read and re-read until familiar and will be analysed by three researchers, following procedures outlined by Gould Eklund, & Jackson (1993) and Gould, Dieffenbach, & Moffat (2002).

Three researchers will individually code themes (quotes or paraphrased quotes representing a single meaningful point or thought) characterising each athlete's responses to the interview questions. Consensus between all 3 researchers will be reached through extensive discussion and group meetings.

If there are disagreements between the researchers, transcripts will be re-read and further discussion followed until triangular consensus is reached. During these discussions, particular credence will be given to the views of the principal researcher who carried out the interviews and listened to and transcribed the audio tapes

Responses from each coach will be compiled resulting in a list of raw data responses for each question in the interview guide. Raw data responses will be organised into groups of like responses to create a lower order themes. These lower order themes will again be grouped into larger meaningful groups or higher order themes. Again, group discussion will ensure that triangular consensus is reached over the theming of the raw data responses.

15. Substances to be administered (Refer to Appendix V of the ethics guidelines)

15.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements. *(Please tick the box if this statement applies and go to section 16)* []

15.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.

16. Degree of discomfort that participants might experience

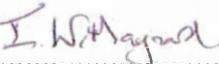
16.1 To consider the degree of physical or psychological discomfort that will be experienced by the participants. State the details which must be included in the participant information sheet to ensure that the participants are fully informed about any discomfort that they may experience.

Participants will be asked to recall stressful experiences and may feel some mild psychological discomfort in doing so. However, participants will be reminded that anonymity is assured, they do not have to answer a question should they choose not to, and that they may withdraw from the study at any time This information will be included on the participant information sheet.

17. Outcomes of Risk Assessment	
<p>17.1 Provide details of the control measures arising out of the assessment of risk including the nature of supervision and support required during the experimental phase of the project.</p> <p>Control Measures.</p> <p>Participant feeling slight discomfort in talking about their anxiety All interview material will remain anonymous. Participants do not have to answer specific questions if they choose not to. Participants are free to stop the interview and withdraw from the study at any time</p>	

18. Safe System of Work	
<p>18.1 Indicate how the control measures outlined in section 17.1 will be implemented to minimise the risks in undertaking the research protocol (refer to 13.1). State the technical skills needed by the Principal Investigator to ensure safe working.</p> <p>Participant information sheet explaining that</p> <ol style="list-style-type: none"> 1. although taped, the interview data will remain anonymous, 2. there are no right and wrong answers, and 3. they are free to stop the interview and withdraw from the study at any time. <p>Principal Investigator has experience of interviewing and is trained in qualitative research methods, including interview techniques.</p>	

19. Attachments <i>(Place a tick in the appropriate description)</i>		
19.1	Risk Assessment(s) (Include CRB risk assessment)	[X]
19.2	COSHH Assessment	[]
19.2	Participant Information Sheet	[X]
19.3	Informed Consent Form	[X]
19.4	Pre-Test Medical Questionnaire	[]
19.5	Collaboration evidence/support (see 10)	[]
19.6	Collaboration facilities (see 9)	[]
19.7	Clinical Trials Form (FIN 12)	[]

<p>20. Signature Principal Investigator</p>	<p>Once this application is approved, I will undertake the study as approved.</p> <p>If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor. If the supervisor advises that there should be a resubmission to the Ethics Committee, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.</p> <p>Principal Investigator</p> <p>Name : Peter Olusoga</p>
<p>21. Approval Project Supervisor to sign off <u>EITHER</u> box A <u>OR</u> box B as applicable.</p> <p><i>(refer to Appendix I and the flowchart in appendix VI of the ethics guidelines)</i></p>	<p>Box A: I confirm that the experimental protocol contained in this proposal is based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Operating Group Procedures for the Use of Humans in Research document, and therefore does not need to be submitted to the HWB Sport and Exercise Research Ethics Operating Group.</p> <p>In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.</p> <p> Project Supervisor .....Date 31/03/2008</p> <p>Name ...Prof. Ian Maynard</p>
	<p>Box B: I confirm that the experimental protocol contained in this proposal is <u>not</u> based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Operating Group Procedures for the Use of Humans in Research document, and therefore <u>must</u> be submitted to the HWB Sport and Exercise Research Ethics Operating Group for approval.</p> <p>I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to the HWB Sport and Exercise Research Ethics Operating Group.</p> <p>Project Supervisor..... Date</p> <p>Name</p>
<p>22. Signature Technician</p>	<p>I confirm that I have seen the full and approved application for ethics approval and technical support will be provided.</p> <p>Technician Date</p> <p>Name</p>



**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Operating Group**

Risk Assessment Pro Forma

Procedure	Taped interviews with elite sports coaches. The interviews will investigate, in depth, the coaches' experiences of stress during their careers
------------------	--

Assessment Number	01
--------------------------	----

Date Assessed	
----------------------	--

Assessed By	Peter Olusoga
--------------------	---------------

Signed	Position
	Principal Investigator

Hazards	Risks and Specific Control Measures
Discomfort in talking about feelings of anxiety and their causes.	<p><u>RISK</u> (Likelihood X Consequence) 2 X 1 = 2</p> <p><u>CONTROL MEASURES</u> Participants informed and reminded that there are no right or wrong answers and confidentiality will be maintained. Furthermore, participants will be reminded that they do not have to answer a specific question if they choose not to and they are free to stop the interview and withdraw from the study at all times.</p>

Risk Evaluation (Overall)
The risk assessment has highlighted only one hazard, that of distress occurring from recall. However, given the nature of the study, the overall risk is low

General Control Measures

Is a pre-screen medical questionnaire required? Yes [] No [X]

Participants will be informed that any information given in the interviews will remain strictly confidential. Participants will also be reminded that they do not have to answer a specific question should they choose not to, and are free to stop the interview and withdraw from the study at any time.

Emergency Procedures

N/A

Monitoring Procedures

Prior to commencing the study, the principal investigator will pilot test and review the interview guide. The principal Investigator has previous experience of qualitative interviewing and has been trained in qualitative methods.

Review Period**Reviewed By**

I. W. Magwood

Date

31/03/2008



**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Review Group**

Participant Information Sheet

Project Title	Stress in Elite Sports Coaching: Stressors, Consequences and Coping Strategies of World Class Sports Coaches.
----------------------	---

Supervisor/Director of Studies	Prof Ian Maynard, Dr Joanne Butt, Kate Hays
---------------------------------------	---

Principal Investigator	Peter Olusoga
-------------------------------	---------------

Principal Investigator telephone/mobile number	0114 225 5752 (office), 07921 465926 (mobile)
---	---

Purpose of Study and Brief Description of Procedures

(Not a legal explanation but a simple statement)

Elite athletes' experiences of stress have been researched in detail over the last 20 years, but their coaches' experiences of stress have largely been ignored. Given the importance of the coach-athlete relationship in fostering peak performance, the aim of this research is to explore, in depth, the stress experiences of elite sports coaches. More specifically, this research intends to identify the sources of stress that elite coaches encounter in their professions, the consequences of stress for coaches, and the strategies they use to cope with stress. This information will then be used to help future coaches reduce their experiences of negative stress in their careers.

The research will take the form of an interview that lasts approximately an hour. The interview will be tape-recorded and transcribed so that your comments can be accurately reproduced but your comments will remain anonymous and the interview data will be treated confidentially. You will be asked to complete and sign an Informed Consent form before the interview takes place, if you haven't already done so.

The interview will be divided into four main sections. The first section will briefly cover your coaching history and what your current coaching job entails. The remaining sections are geared towards understanding your personal thoughts on the sources of your stress and why you find these things stressful, the consequences of stress for you, and the methods you use to cope with any stress you encounter. At the end of the interview, you will be given a chance to talk about anything you feel is relevant that was not covered by the questions.

There are no right or wrong answers to any of the questions and you are asked to simply give your honest thoughts and feelings, although you do not have to answer a specific question should you choose not to. You may feel slightly uncomfortable talking about stressful experiences but, although the interview will be taped, all the information you give will remain strictly anonymous and you are free to stop the interview and withdraw from the study, without prejudice, at any time.

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the Faculty of Health and Wellbeing Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.

INFORMED CONSENT FORM

TITLE OF PROJECT: Stress in Elite Sports Coaching: Stressors, Consequences and Coping Strategies of World Class Sports Coaches.

The participant should complete the whole of this sheet himself/herself

Have you read the Participant Information Sheet?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
<p>To whom have you spoken?</p> <p>.....</p> <p>Do you understand that you are free to withdraw from the study:</p> <ul style="list-style-type: none"> • at any time • without having to give a reason for withdrawing • and without affecting your future medical care 	YES/NO
Have you had sufficient time to consider the nature of this project?	YES/NO
Do you agree to take part in this study?	YES/NO
<p>Signed Date</p> <p>(NAME IN BLOCK LETTERS).....</p>	
<p>Signature of Parent / Guardian in the case of a minor</p> <p>.....</p>	

STUDY 1

Section 1 - intro and demographics

1. To start with, can you tell me a little about how you first got into coaching?
2. Can you tell me a little about your role now?
3. What's a typical week like for you in your current role?

Section 2 - identifying stressors

I'd like you to think about your current role as a [name of sport] coach and the environment that you work in.

4. Do you find your job as a [name of sport] coach to be stressful?
5. What is it that makes your job stressful?

Elaboration probes - Why is that a particular source of stress for you?

Clarification Probes - I'm not sure I understand what you mean by [specific stressor]. Can you just go over that again?

6. You've talked a little about XXX. Tell me about stress from other areas/stress related to other parts of your job.

STUDY 2

Section 3 - consequences of stress and coping strategies

In this part of the interview, I'd like to talk about some of the consequences that stress has for you. If you can think back over your career coaching world class athletes...

7. Can you tell me about a time or times during that period that have been particularly stressful?
8. What effects did this stress have on you/What were the consequences of this stress for you?

Prompts-
-behaviour, what would happen when you experienced stress like that?
-moods/emotions, how did you feel?
-thoughts?

Clarification Probes - I'm not sure I understand what you mean by ??? Can you just go over that again?

*General Probes - What other effects did this have?
Has it ever gotten too much?
What would have to happen for you to say enough is enough?*

9. If I were one of the people around you at that time, for example, another coach or one of your athletes, how would I have been able to tell that you were stressed?

10. How did you cope with the stress you felt during this part of your career?

Elaboation probe - What strategies did you put in place to help you cope with stress?

Before we move on to the final part of the interview, is there anything else that you can think of that you'd like to add, regarding how stress affected you and the ways that you coped with it?

Section 4 - positive experiences of stress and concluding remarks

11. Have you ever viewed stress in a positive way? Tell me about that.

*Elaboration probes - When did it become positive?
When were you aware of stress?
Coping strategy?
How was this different to other experiences of stress?
Was it an effort to see it as positive?*

12. Thinking about all the things we've talked about today, what would you say stands out as the most stressful part of your job? Why?

13. Thank you very much, I think that's everything I'd like to ask you, but before we finish, is there anything you'd like to ask, or anything you'd like to add that you feel we haven't covered?

Appendix C

Example Transcript from Study One & Two Interview

PART ONE

Interviewer: To start with then, can you just tell me a little bit about how you first got into coaching?

Participant: Erm (pause----) As a... as a competitor... no it was probably two... two things. As a career, I'd always considered teaching as opposed to coaching, erm... and er... as a competitor erm... it was the exploration of ideas... of different ideas with different [athletes], erm... from whatever country at the time but that... that... that was interesting as well as the competing. Er... (pause--) and erm... it was... the way I first got into it was being perceived as a good [athlete], being perceived as an expert, I had the chance to get some small income to help support [the sport]. So that's how it... how that happened. Erm... and then er... basically as a financial necessity, erm... I fell into a job er... working in the [name of] sports centre down the road here and erm... and part of that was er... teaching [the sport], quite a lot was coaching at a higher level and I also got asked by erm... [name of individual] of the [name of organisation] to run his winter training, his youth training erm... about that time as well. Er... that's probably when I started doing more and more coaching and then erm... compared to the other parts of the job, that quickly became the... the bit that was interesting and challenging at a youth level and then er... really just seemed to grow up with those youths as they came through and ended up coaching them at a higher level. So that would be that... So the financial, supplementary income at one level and then it sort of developed from a career in [sport] rather than a career in coaching.

I: So how long have you been coaching on total then?

P: Erm... in total, since... I mean I did some very small bits up... up to '92. Then since '92, I'd say that's been my career at all sorts of levels. And then '97 was probably when erm... I started doing a lot more work for the [name of organisation] with their Olympic development squad. At that time, it was just the development squad and then erm... and then working on what erm... [names organisation 2] would call the world... the... performance programme since erm... (pause--) probably only since just before the last games (pause--) 2002, 2003 something like that.

I: Can you tell me a little bit about the role that you've got now?

P: Erm... two sides to it. The main... the main thing I perceive is er... working with er... currently 2... er... 2 of the top athletes in the country so er... the performance squad as... as I said before. So the main responsibility is working with them, erm... one's just been selected for the Olympics so working with him towards the Olympics. The other one, realistically, looking at 2012 on so trying to sort of get him through the pathway there. I'm also head coach, been given the role of head coach... or the title of head coach which is more to support [name] the Olympic manager, erm... but within that there's... I wouldn't say there's much of a managerial role but there's a bit of er... erm... communication and er... err... linking... linking up with some other coaches in... in different areas, particularly when we're away at events. Then I have more... then I have a more obvious role when we're away at events in terms of making sure everybody knows everything they need to know and how things are gonna run at events. INDEX01.

I: And how long have you been in your current role then?

P: Er... since... when we'd been to Athens... so early sort of 2005 I'd say to... to... to... just over 2 years.

I: What's a typical week like for you... or do you have a typical week?

P: Er... don't have a typical week there seems... er... there's er... if you were gonna say there was typ... typical week, there's two sorts of typical weeks. One is at [events] which... obviously the day is focused around the event plus er... any follow up admin

or... or er... or pre... pre-event admin as it were. Also training camps is pretty similar. That's quite structured, around training camps. The rest of the time erm... I mean I'm ... this week is pretty unstructured. I've got erm... , typing up stuff, planning ahead, er... at a fairly ad hoc basis and rarely would that be in the office so erm... so that would be... those would be the two... the two different weeks. One's very structured round the racing, or training and one is very much an admin, ad hoc erm... fairly fluid sort of... Sometimes I might do some odd jobs for other people, but generally it'll be either working in clubs or other class associations but not directly for the [names organisation] in their schemes or in a responsibility in their schemes. I might work for them but it'll be as an assistant coach or a... or a... or a expert just to come in for half a day or something.

I: Ok, well bearing in mind the definition of stress that we talked about just a little while ago...

P: Yeah.

I: So thinking about your role as a coach, the current role and the different sorts of environments that you work in, so you mentioned being away at [events], training...

P: Yeah.

I: ... First of all, do you find your job to be stressful?

P: At times. At times. Er... er... at the important [events], where there's an obvious focus on the er... on the outcome. Er... you know, just (pause) a couple of things that are stressful; one is being the perceived expert on how er... the team should work. So erm... dealing with all those... the different... the different issues that everybody else has and trying to make that work smoothly. And then also, [at the event], it comes to the time when there's... there's nothing you can do any more and perversely, that's... that... when you can't do any more, that's one of the most stressful things, is knowing when to... when to let go and then just let the athlete do what they... what they're supposed to be good at and you can't really influence it after that point. And that's... in a way, that can be quite erm... It's out of your control then... completely.

I: So the first one then, being the perceived expert, why is that stressful for you?

P: In that er... in terms of er... how [events] are going to be run, how the rules are interpreted, it's still fairly... a fairly woolly area and (pause) when you get involved in that, you don't really know quite where it's gonna head I suppose, in that it could set up a chain reaction that may or may not impact on the team or an individual. Whereas er... you know, you still need to... you still need to let the competitor go out in the right frame of mind to do what they've got a need to do and it's almost working in their best interests without them being involved in the process which is quite a hard thing to do as well. On a need to know basis, how much do they need to know and how far do you do what you want to do erm... without consulting the athlete up to a point.

I: Ok... And the second thing you mentioned, the time when you're not in control any more, when they're [competing]...

P: Yeah.

I: Why is that a stressful situation for you?

P: Erm... 'cause you can... you can see the mistakes, you can see the opportunities, erm... (pause-) and you want to be able to influence what's gonna happen, but you can't, erm... (pause) er... particularly mistakes, that's probably... 'Cause when you see mistakes being made you want to intervene there and then but you can't. So it's er... you know, trying to get a strategy of how you can get that point across later, but at the time, it er... erm... whether that's changes in the conditions, whether that's judges decisions, erm... whether that's [athletes] mistakes and all those... all those things which could form mistakes.

I: What else then about the competitive environment is stressful for you?

P: Erm... (pause---) the emphasis... the emphasis on results can be stressful but I think as long as you're satisfied that you're doing all the... all you can in the processes and the [athlete]'s doing that, it's possible to... it's possible to ignore than so er... erm...

I: What is it that would make that stressful, that emphasis on results...?

P: Erm... (pause--) probably if there were... if the... if... if finance at our level was tied into it really closely, you know, for me personally, that might make it more stressful. Might... might not though. Erm... (pause) what would make it more stressful (quietly)? (pause----) Erm... yeah, probably leave it at that for now but erm... yeah.

I: Ok, so you talked a little bit about the competitive environment there, tell me about stress from other areas of the job you do, other areas of you role as a coach.

INDEX 02

P: Erm... (pause--) I think particularly (pause--) in... in... I mean I'm sure it is the same in most other sports, erm, but even at a reasonably basic level, [the sport]'s so multi-faceted, it erm... knowing where to concentrate your energies as a coach (pause) and as a [athlete] is... is... very difficult. And that can be, you know, you're given so many options of areas that you could get expertise, you could follow, you could check up on, erm... and assessing I think... can be quite... it can be a hard decision to make as to where you're gonna put your energies and your resources and erm... always not being sure that you've picked the right ones is always a difficult... is always difficult. Erm... whether, you know for example, [name of organisation]'s got a very large technical project, erm... and a large ***** project and knowing how much input to put into that and what the gains are compared to, you know, looking after the athletes and getting them in the right frame of mind, is always a bit of a... there's a bit of conflict there as to erm... how much effort you should be putting into the different areas. Or how good... or how good you need to be in those areas, those things are like... those things are very hard. Which I suppose just basically comes down to the time management thing again.

I: So is that just stressful in terms of you not being sure if you're doing the right thing or...

P: Yeah.

I: Yeah.

P: Yeah, you know, you can, you know, I think you're always aware that I'm doing these areas very, very, very well, or I believe I'm doing them very, very well, and I'm not sure that's having an impact on performance. Conversely, I'm doing these areas very badly, but at the moment, I don't think that's gonna be making a difference in performance, but maybe it does. That uncertainty, the unmeasurability I suppose, is quite stressful.

I: Ok. So what else then, what other things are stressors in your role as a coach, again, thinking about all the different environments that you might work in or find yourself in?

P: Erm... (pause-----) the (pause---) erm... I wouldn't say ambiguity but erm... (pause) probably the... the ad hoc nature of our sport team in itself is quite stressful as well in that it's not, you know, there's not a lot of people who can train in the same way, erm... or... or... understand the same working practices, erm... you know, and then are therefore expected to behave in a certain way but... again, to get the best and er... er maybe the best and most innovative coaches, erm... our Olympic manager is quite prepared to take on mavericks or people... people with short term interest or a different viewpoint if... if that might make a difference to performance...

I: Uh huh.

P: ...you know, which, at the end of the day, that's... that... he's all about... all about performance. Erm... maybe more so than the competitors and the [athletes], you know, it's very clear for him. So... even if he thinks it might affect performance in the short term or the long term, he's prepared to try it and that can lead to... not necessarily

conflict... well yeah con... conflict in the working practices and how best to... to move the whole team forward. And in the head coach role, that can be quite stressful in that there's, er... a whole variety of people with different... different views and outlooks on life, not necessarily, you know, they're... they're... they're not [name of organisation] through and through, so it's... there can be conflict there and that can be quite stressful.

INDEX03

I: Erm... ok, just before we move on to the next part then, is there anything else that you can think of, or any other things that are stressors for you in your role as a coach? Again, in all aspects of your role.

P: Erm... possibly the (pause--) not necessarily lack of support but difficulty in support er... in some of the basic admin or IT etc., particularly being remote, erm which, you know, is largely my choice but er... you know, not having a... an IT department at the end of the phone to solve problems when, you know when... when... when you need it etc. And that's just stressful

I: Ok so why is that stressful?

P: It might just be exaggeration...

I: Is that just a case of it takes up time or...

P: Yeah, I think it's time, as in you know that this could be done a lot better

I: Yeah.

P: A lot quicker. That you're just having to thrash through what are pretty... sometimes pretty routine jobs, erm... you know, form filling, ticking boxes, when actually you could be doing something er... more... more related to performance.

I: So taking you away from what you see your role to be?

P: Yeah taking... yeah, you know, the... the... the non... the jobs which don't have any added benefit, I... I... I don't know, filling in claims, and you know, yes you can see that has to be done but (pause)...

I: That's not what...

P: Yeah, then there's... you've got 30 things and ten of them are just not gonna add any benefit then they... they... they'd just be seen as, not just annoying, they can actually be quite stressful. If you don't do them there are implications for you personally and maybe for the team, but not for the athlete. That... that... that can be quite... quite stressful.

I: Is there anything else you can think of?

P: Maybe just any ... being part of a (pause) is it not feeling trusted? Not being able to make decisions in terms of programme er... without consulting, you know, always having to check, always having to check, that can be, you know, can I change my programme, can I do this, can I do this, erm... that... erm... yeah, so that can be (pause--) that can be quite stressful in a... in a... in a way as well.

I: So is that in terms of the management structure...

P: Yes. Yeah.

I: And is it that they are impinging upon what you... on what your role is or...?

P: Erm... yes. You know, I know... I have no management, you know, despite being given the title of head coach, I have no management role as such. I don't decide who... who's rented and for how long and what they're gonna do and what their priorities are. That's, you know, that's decided er... at a higher level.

I: Ok, and that's stressful for you because...?

P: Sometimes I don't... I don't... I ... I don't know the exact agenda of why, you know, how they're involved. Are they a personal... are they a personal coach, are they er... erm... are they part of our sports staff, are they supposed to be er... helping in certain areas or not? All those things have to be found out later on. It's just a case... it's probably the ambiguity and the uncertainty that... that's quite stressful. Each squad's

run in a slightly different way. There's no... so it's largely up to the coach and the Olympic manager decide exactly what the roles and the... (trails off..)

I: So there's no sort of continuity between squads?

P: Yeah so... so... so again, because then, you know, you can use the mavericks at a... at a... at a different stage, a different level. Even to the stage of there being a conflict between the people who work for the [names organisation] and the people who work for the athlete, you know? Large... largely they are the... largely they are coordinated and they are the same but if (pause--), you know the athlete takes on board someone who (pause) works with foreigners often or even if it's just for a small consultancy then there's a whole load of confidentiality issues and should they be involved in all the squad activity, should they be trained up, should... what should you tell them because they're gonna go back and work for the foreigners at other times. So that stuff can be (pause) quite tricky.

I: Ok, unless there's anything else you can think of that is a stressor for you...

P: Not through, not... not... not through the... through the...the... the role or the job. I think that's probably covered it.

PART TWO

I: Ok. We'll I'd like to move on to the next part then. If you do think of any more stressors as we go through, please feel free to mention them, but now I'd like to talk about some of the consequences that stress may have for you.

P: Yeah.

I: So again, if you can think back over your career at the top level, coaching world class athletes, can you tell me about a time or times that have been particularly stressful for you?INDEX04

P: Erm... (pause-) starting with the more obvious ones, erm... (pause-----) first race of the Athens er... Olympics, not someone that I directly coach but er... one of our top athletes was involved in a protest at erm... (pause) that if he lost obviously would (pause) not help... not help... not help the cause that's for sure. Erm, you know, so it started and as I was involved... the rules and advice... er... that was one of my roles, one of my roles at... at the Olympic [event], I had to advise him on er... how to go about that and so in the short term that was quite stressful but also there... it was ongoing and that we knew there was TV footage somewhere but we had to get hold of it and we had to try and get that to... and erm... whilst still not making that an issue for the athlete, if we did or didn't get hold of it. Erm... and also working at the edge of my knowledge of the processes. So that was... so that was an obvious case where I found that... pretty... pretty stressful.

I: Ok, so what were some of what were some of the consequences of that stress for you?

P: Erm... (pause----) I th... (pause--) I think it affected my preparation for my athletes er.. the interaction they have. I think I did a pretty good job of not showing it but you know, just that erm... partly 'cause of time taken up, partly because of energy taken up, then it wasn't... probably wasn't putting as much effort and energy into erm... collecting... collecting and interpreting the information for my [athletes] in that event erm... (pause) and also, you know, the relationship... mmm... was a lot more inflexible than it normally is because I had to be going and sorting out the other stuff. Erm... so those tho... the... that... that... tho... tho... so those could be the... the effects.

I: Is that something that would happen often, like you would have to go and do other things while you're still coaching your athletes?

P: Yes but erm... the... but er... certainly [names athlete] and [names other athlete] really are pretty used to that.

I: Ok.

P: Erm... the... they're flexible enough as well and it's just the understanding we've come to, that yeah, yeah... yes I've got to go and do this but we... if necessary, we will come back to other stuff and I will be available. But it does mean that erm... mmm... maybe it's not the best thing anyway but sometimes the flexibility and the informality can't happen as well as it often can do which I think, at that level, is often quite key 'cause things can be brought up as and when (???) just have to push the agenda a little bit harder, and so you know I've got... we've 20 minutes, I've got to do this and then I'm off, erm... which might be a better way of working but erm... certainly a few years ago, that seemed to be... that seemed to be a compromise.

I: So I guess that stress, you could say affected your behaviour then, in that your behaviour had to change?

P: Behaviour had to change, yeah. I don't think erm... (pause) I don't think my outward demeanour changed very much but in terms of... yes I'd like to, you know... just the... the unavailability changed so there was a change of behaviour there yeah.

I: Ok. Can you think of any other sort of occasions when you've been particularly stressed maybe specifically coaching your athletes or...?

P: Er... I did have one before I went into that incident. Erm another partic... particular one would be at an even but it had been building up, would be when er... (pause----)

with athletes giving up. Erm... you know, it was fairly implicit... fairly explicit really that er... , you know, that wasn't tolerable and that wasn't right and erm... I mean as it was, it was the end of their careers, as it was, but they were giving up during an event, erm... which just because it went against all the things we'd been working on was incredibly stressful and also that the effect that might be having on the people who were still competing. So... so that would be another example with the athletes I was coaching at the time. It was... yeah that was pretty stressful at the time. Err... you know, particularly in terms of anger, erm... you know trying to manage that so that it didn't affect the others. I mean, you know, the concern was the athletes still competing at that time.

I: Yeah. How else, then, did that affect you at the time? You said anger was one sort of response...

P: Yeah... anger...er... anger and... anger and motivation I think were the two ways it would... that it affected me, you know. Erm... (pause---).

I: So what would happen? How did it...?

P: How did it... how did that... how did it manifest itself? Large... largely again in (pause--) again probably managed to do most of it behind, you know, you'd have to ask the athletes, you know, if it affected my relationships with the other... with the other athletes but certainly erm, I was having to find a bit more time to myself to rationalise it and sort it out and try and get a strategy without erm... blowing up in public I suppose. So erm... certainly, certainly it made the whole event a lot less enjoyable for me and (pause) for... fortunately the athletes are so up themselves at that time that they probably don't notice.

I: I was gonna say, if I was one of the people around you at the time, say like another coach even, or one of the athletes, how would I be able to tell that you were stressed?

P: Erm... (pause---) probably by being more withdrawn. I think I'm... I tend not to (pause) outwardly show the differences. I'm... Erm... you know, consistency is almost a bit of a mantra that as a coach I should be consistent erm... in success in defeat in, you know, hard times and good times which might have some negative effects in that erm... when things are going well, I don't get over excited. Certainly the younger athletes often say I don't seem to, you know, I don't share their buzz and drive them on to wanting more, but I think with the more experienced athletes, you know, where the whole er... motivation is much more internalised, that that's not an issue so whether long term... I think there might be a long term affect in that erm... er... by deliberately trying to be consistent, you reduce the motivation a little bit. And in the short term, don't know if there's much of a short term effect, probably just a bit more withdrawn, slightly harder to approach, generally, you know, I think I can work through that.

I: I know you said you athletes are kind of "up themselves" at the time anyway, but do you think that affects them at all, that you're sort of more withdrawn, harder to approach?

P: Yeah... I think it can do but I think erm... I'd like to think it doesn't, you know, certainly not with the... probably the ones I've been working for for a long time. I think just they know, you know, like I know them better, they know me better.

I: Yeah.

P: And, you know, they've seen instances of it before and... and... and managed to work through that.

I: Erm... what other... or what other effects does experiencing stress have on you?

P: Er... disturbed sleep... up to a point. Pretty rare but erm... er... certainly when I'm at camps and events, er... you know, normally if I wake up in the night, I just fall asleep again but once your brain starts... brain starts buzzing, and you can't go and deal with it

then so it' useless but you can't, you know, you just keep running through possibilities. Worry I suppose is what it is but, you know.

I: Would you say your confidence was ever affected? INDEX06

P: Yes. Yeah I would, erm... I'd say that er... (pause--) er... probably don't... I'm not saying I'm not self-confident but fairly reserved outwardly in showing that anyway. So again, I think... I don't think outwardly there would be much difference. Erm... you know, it might be a problem all the time that er... er... the lack of confidence in certain areas leads to procrastination and therefore more time issues, erm... less interventions or inappropriate changes at inappropriate times. Erm... but er... again I don't think it makes that much change in my outward behaviour but er...

I: But it might have sort of knock-on effect in terms of practical things that...

P: Yes in terms of actually getting things done and making the decisions and... and doing it well 'cause you've waited so long to decide on the course of action that your running out of time to actually do it really well. Whether that's er... whether it's... whether it's to advise an athlete, going back to the rules example, whether to advise that athlete to protest or how they should do it or erm.. er.. On the other hand, I think always having maybe that little bit of lack of self-confidence means that you don't jump to the... it does stop you jumping to conclusions anyway, erm... and taking people off down a course of action that they can't come back from... back from. So I think it's always useful to consider all the options. But that can be, you know, it can be... And then the long term, at the end of an event when the big decisions are being made, and you're not really up and ready for it, just through a bit of fatigue.

I: Alright, we've talked about the incidents you mentioned before when I asked about stressful times. How did you cope with the stress that you felt during that part of your career?

P: Erm... In... in terms of... the athlete, when it comes to the point when you can't affect things anymore or certainly for a couple of hours, erm... I think just learn to rationalise that and know it's gonna happen and use that time to er... (pause-) to very... to use that time positively to very carefully decide what points to get across and how to do that in the... in the 5 minutes you're gonna have after the race. Erm... hopefully so it still seems fairly spontaneous but actually just to try and... So you can still do something positive but it's just that realisation that you can't do anything about it so therefore, erm... if it's... if the mistakes are being made through lack of knowledge, er you can go and find that stuff out around the course, whether that's ***** , whether that mistake is, you know, due to other competitors, you know, to try and work out the strategy that they might be using and... and what their game is. If it's down to the athlete, just trying to work out, you know if there's anything you can do to affect their mood or mood or preparedness before the next event. So just trying to use that time positively erm... while still seeing enough of the race to actually er... to back those ideas up I suppose. The danger is either getting (??) and jumping to conclusions or just getting so would up that when you do get the 5 minutes between races that that time's not usefully spent. So I suppose it's just having something... having... having two or three things to work on during that... that dead time.

I: What about, you mentioned the... the management issue....

P: Yeah.

I: How do you... what do you do to cope with that?

P: I'm not sure that I do particularly well. Erm (laughing)... er... (pause). I think... I think just the way I do it is working out the things I can effect without having to erm... ask advice or clarification and just tick off those even though some of them seem quite ineffectual, just to try and tick those boxes and try and er... do... do... do what I can do with the information I've got which erm... probably isn't the best strategy. The other one would be to find out how we can make the big decisions and the big answers but er..

you know that's a time issue with the people above me I suppose. You know I feel... feel... feel like I can't go and ask for that time and that input at certain times in the programme. And at others but not, you know, other times in the programme.

I: Ok, you mentioned again about your role at the [event] where you're looking after your... trying to look after your athletes but you end up doing other stuff as well...

P: Yes.

I: Are there any sort of specific strategies that you might put in place to help you cope with things or...?

P: Er... (pause---) just I think the only way is... the only real strategy I'd say is that we've got to the understanding with the athlete that... that if there's still an issue, then that can always be dealt with later. Erm... and making sure there's certain times of the day, er... particularly in the morning before the races where I'm at... I'm not at their disposal but I'm not gonna get distracted by other things. And erm... the coaches are aware of that as well. Erm... some of that's implicit and some of that... some... some of that's just implicit in the way that... the way it's set up is that, you know, everybody's aware that from then to then, everybody's on their own programme and there's not enough time to budge it unless it's an absolute emergency. And if there is an absolute emergency, they'll have to get someone else to do it.

I: So it's kind of sort of drawing out all the...

P: Yeah.

I: You'll be available at this time, so on and so forth...

P: Yeah. Race is at 11, [preparation] at 10, from 9.30 'til 10, I'm (pause) uninterruptible.

I: Is there anything that you've... or is there anything else that you've done to try and cope with stressors that you've experienced? So again, if you think of your career with the world class athletes.

P: Erm... (pause--), yeah, I might not have mentioned this as a sort of stress but er... er... procrastination and indecision on the athletes part in terms of programmes and what they're doing next and what they're working on, erm... can be incredibly frustrated(ing) when you're trying to plan your programme around them and how you're gonna fit their needs into the programme. Erm... and when there's a late change, from my viewpoint without good justification, er.. that can be very ... that can be upsetting, erm.. and probably the way I've coped with that is to, as long as the athlete can give a rational reason and er... a reasonable argument, is to go with the athlete's... so ok, yeah, we can, flex that and go with it and we can do that. Erm... sometimes I think that is... hasn't been the best answer in terms of getting certain bits of the programme sorted out. Erm... you know once we're into the pre-[event] stuff, there's... the priority for me is that the athletes are in the right frame of mind come the start time and I'm a little bit scared to challenge in the previous, you know, 60, 70 hours before an important event, you know, the fear of doing that. So I think some of those strategies aren't so good. Erm, you know, I think the [athletes] know that if they... they change things just before events, then I'm gonna... I'm a... I'll be a soft touch. I think that can be a bit of a weakness. Erm... so that can be, yeah... yeah probably, maybe, not necessarily the wrong strategy but a strategy that erm... I should challenge myself on more often just to say well actually, I'm pretty sure for these reasons that that's wrong and get into the dialogue and the argument rather than just ok, if that's the way it is.

I: So is that not an effective strategy in terms of the consequences that it might have or in terms of your own sort of reactions to stress?

P: It's not effective in the consequences... I think it's... I think it's... I think in the... it's not effective in the consequences it has long term in the programme.

I: Right.

P: Erm... I think it is a way I... it's a way I avoid those conflict situations and my stress in the build up to events. So that... in that respect it's probably good but... I probably need to... I need to probably be a bit more challenging to myself and the athletes at those times.

I: You talked... before about the strategies that were effective and about er... er... about planning so everyone knows when you're available. Is that just effective in terms of everybody knows what's happening or...?

P: I think it's effective in that I know what's happening up to a point and I think it's effective for the athletes that they know, you know, that... that they know they're the priority at certain times of the day. I think that's critical for them.

I: Alright, before we move on to the last bit then, is there anything else that you can think of that you might do to cope with some of the stress, any specific strategies that you put in place to help you cope with stress? INDEX07

P: Erm... (pause----) It's useful... I find it useful to have (pause--) er... space for myself. Lock the door and (pause) have a bit of a tantrum, erm... I'm fortunate in that respect in that I've managed to build up a reputation as a snorer so I end up with my own accommodation a lot of the time.

I: Right.

P: And although sometimes, socially you get a bit left out in that situation, I think in terms of those things, it's very useful to have some space erm... that...that...that... that is yours and if you do behaviours that, you know, people wouldn't expect of me, at least I can do that behind closed doors. (??) it would be having a time or a place, erm.. you know often I'd... you know, I like to get quarter of an hour, 20 minutes to myself at some point during the day. Erm... often that (??) just to... just to sort of... just to put things back into order, er... er... and to reassess.

I: So on the flip side I guess, is having other people around you something that can help you to cope with stress or would you say...?

P: I would... I would (laughing) generally (pause) generally that erm... would be a stressor in that the way probably the way... the way the role is... having one or two people and just having a beer quietly with one or two people would be good but in terms of being socially available, erm... it nearly always ends up with just another thing... just another few things, just hoops, what about this, what about that, what about this and that and that, all the, you know... And that has to be done, you have to be available, but I definitely do find, and again this might be a... probably a mistake but certainly recently I've found that I don't go looking for the social situations because I know the list is gonna get bigger, I'm already behind on the list. So I suppose that's probably a time management thing. Even to the stage of not phoning people up because you know... to get an answer, 'cause you'll get three more questions.

I: Just more and more and more to do.

P: Yeah.

I: Alright, just before we move on to the last bit, anything else you can think of in terms of consequences of stress for you and how you cope with it?

P: Erm (pause---). Er... I think one of the consequences is (pause) erm... that some time, and I suppose this is a strategy, I make sure I've got a lot of time to myself in the year. Normally, it's September time, you know, had the season, done that, normally it's at the same time the athletes have a bit of down time, I make sure that erm... whether it's... you call it down time or not but... look after your own health a bit better, er... do some of the hobbies you enjoy, erm... make sure you get your computer turned off, before, you know, your partner comes back from work. I do always finish before, you know, as soon as she's back, then that's down, you know, whatever happens. Erm... I just do find there are times, normally at that time of year where I'm very de-motivated and I'm constantly wondering whether actually this is what I want to do, erm... what are the

other options? Without that (the down time) that I think would probably lead to some rash decisions that I'd regret later on.

I: Is there anything that would make you sort of want to (pause) get out of coaching or...

P: Erm...

I: What... what would have to happen for you to decide enough was enough?

P: Probably, erm... too big a gap between why I'm doing it and why the s... why the athletes are doing it and why the management are doing it. You know, if it's... I think if it's... not, you know, personally, you know, the process isn't interesting and useful and enjoyable, then it doesn't matter what the bloody results are, 'cause it's then that it's just not worth... it's just worth it where obviously erm... you know, you can't really (pause)... considering the management is very results orien... oriented and some of the athletes are, er... and there seems to be a general (pause--) er... you know, if that gets too far apart, you know, I... I... I'd go in some ways to result being more important but if that gets too far apart then it's just not worth... you know, if the process isn't worthwhile erm... then... or enjoyable, then it doesn't matter how good the results are, it's not erm...

I: Do you think that's affected by the whole London 2012 thing coming up or... I mean is that anything to do with it?

P: I think it's certainly to do with the increased commercialisation of [names sport] in that er... erm... it's... and that probably goes all the way through, you know the pathway to success in that it's all about professional lifestyles, you know, when you're 12, you know? It's that... it's that... I suppose the... the professionalisation and I'm not saying I'm not professional but the... the so called professionalisation in terms of erm... being accountable to goals and erm... results and erm... child protection act, lardy da, you know, the actual ticking the boxes, making people fit into the mould isn't what... I'm about people exploring themselves through sport, erm... obviously er... and even further down the rankings I think that's probably it. So I think I... I do find that quite stressful at times, when you get the whole team together and I'm just thinking, you know, you selfish, you know, you selfish bastards, can't you see that there's more to it than erm, you know, than nearly cheating, nearly, you know, right... going right into the grey areas of sport just to try and get a *perceived* advantage most of the time, not even *an* advantage. So that's probably a whole other topic altogether.

I: Yeah, that's another interview for another day.

P: Yeah.

I: Interesting though. Have you ever viewed stress in a positive way? INDEX08

P: Er... certainly as a competitor I did. Erm, you know, about the nervousness was seen as being ready and without it, it was hard to... to focus well enough or to get, you know to perform well enough. As a coach, erm... I don't mind seeing... I don't mind seeing nervousness in my athletes or them saying oh I'm a bit nervous. Er... and even as, you know, in... in making a presentation or something like that, erm... I think it can be useful just to concentrate the mind until it gets erm... too... too much where you just start getting to paralysis by analysis, you've got too many options buzzing around and you lose... lose the thread of what's going on. But generally... often, you know, a bit of nervousness erm... can be... can be useful I think.

I: In competitive situations as well? Like as a coach, would you say just that little bit of nerves is... is maybe useful?

P: Yes as long as I can still be consistent with the athlete.

I: Yeah.

P: Yeah, I think in terms or er... (pause) er... you know, analysing situations, erm, making decisions a little bit of excitement, er... is probably a good thing. It's... (pause), you know, we're in danger of getting into jargon now but that... once that actually becomes fear, then that can be quite debilitating.

I: Yeah.

P: You know, there's occasions like in the... in the process scenario we talked about in Athens, that I... I was almost as scared of the effects that... that actually it became... probably became a little bit obstructing rather than helping.

I: Erm... can you think... can you think of an example of a time when you've viewed stress positively as a coach.

P: As a coach? As a coach, erm... yeah I can remember when we first started having (group) camps, erm... and the sports staff were expected to present to everybody, whereas before we would have been very much expected to present to present to your own class and then there'd be one or two experts to present themselves. And (??) in a position to present to everyone, erm, you know, they were all very good athletes, all knowledgeable, erm... and they hadn't been introduced to any of my wacky ideas and they hadn't... or anything odd, you know? And erm... I think being put in those situations helps clarify your thinking and certainly makes (pause)... Without that nervousness, that even wouldn't have been as important as I made it out to be. And I wouldn't have researched it as well, probably performed... I probably would have performed as well at the time, I just wouldn't have researched it as well and I could have been caught out around the various areas. Erm, you know, there's times when almost you're putting, in front of everybody, you're putting your reputation on the line and maybe if you say something stupid then it takes a long time, in this sort of cynical world of sport, to actually make... if you say something that is actually an error, it takes a long time for some people to trust and believe in you, to come back.

I: When... when did you see that as positive stress? Was that, you know, when you were doing all that research or was it after the event?

P: After the event, but I think I've been in enough situations to know that after... after the event, it will have been a good thing, erm... and I think that's just something you learn from, you know, being... I dunno, doing a teacher training course and being put in that situation then, you know? That was a sort of... I think you know as soon as you get pushed out of your comfort zone bit by bit, you know, with hindsight, actually it's a good thing as long as you're gonna have time to reflect on it and recover from it, you know. Erm... again, going back to the sleeplessness, you know I... I'm aware that the person I was sharing a room with at the time was an expert in the areas that I was trying to deliver on. I thought that was a complete pain in the arse 'cause, you know, half past 12 at night I'll go 'yeah but what about this idea [names person]?' and he'd be saying no that's completely idiotic, can't we just go to bed now. So er... there are... but I think you learn that, just the same as I think as a competitor learns that if their nerve... some of them learn, that if they're nervous and scared then that's quite a good sign.

I: Do you think your experience as a competitor has helped you deal with stress as a... as a coach.

P: Yes.

I: Yeah?

P: Yes. Erm... (pause--). Yeah, I think it certainly helped me erm... understand the stress they're under a lot better in terms of empathy. I think that's certainly... that's certainly true.

I: So is that just that relationship between the athlete and the coach?

P: Yeah. And you can understand (pause) why an athlete might find the situation stressful even if to you, they're not anymore. You know, even to the stage of just speaking their mind in front of the squad or erm, asking advice of the physiologist. The experts are there for them but when you're 14 and you're, you're used to sitting at the back of the class at school, to actually make that approach, you know? So I think (pause) er... in that respect, it's made me a better coach, but whether it's made me cope with stress better, I don't know. Probably not, I've probably learned some pretty bad

strategies in terms of procrastination because I've got away with it so many times before. I wait and wait and wait and wait, then it'll be over and... and that's worked with success at a number of levels, so I think some of the strategies you learn when you're a teenager, same with the athletes, they stick with you for a long time and it's very hard to change the behaviour later. It's... if that makes sense?

I: Yeah.

P: Yeah. Even if... yeah, even if the strategy is wrong, because it's got you through, maybe not in the best way, but in a good way, it can be very hard to... very hard to change it.

I: Yeah. Alright thinking about everything that we've talked about today then, what would you say stands out as the most stressful part of your job as a coach? If there is one?

P: (pause-----) erm... (pause--) I'd say there's... cop out answer, I'd say there's two.. two being in completely separate spheres. In terms of the job, I think the biggest one, but I've learned to cope with it, is just at the end of the day, you can't do anything... at the end of the day, the athlete has to do it and you can't affect that. And so when the... the time that really matters, you can't do anything and I think that is...that... that... that's incredibly stressful but I've learned to cope with that quite well. In terms of the (pause) the job is them... I think just the... maybe it's just the age I am, the effect it has on your lifestyle and your relationships. Just in terms of time away erm... errr... you know if you have a family, how it would affect that all those... all those sort of things.

I: Is there anything that you do or any strategies, again, that you might put in place to help cope with that side of things... that you mentioned... having a family...?

P: Never... never outstretch myself in terms of finance, emotions and erm... and erm... commitments, really, so... so that's actually quite, you know, those things probably do impact on a lot of the decisions you make that in the long term might be sensible but in the short term, you can't make them erm... (trails off)

I: Well thank you.... that's everything that I want to ask. Is there anything that you want to ask, or is there anything that you want to add that you haven't maybe had a chance to... to talk about?

P: Er... (pause--) don't think so. I suppose just the... the last point, you know, tying in to the time to yourself bit and that is that the nature of... there's sort of been two extremes of coaching. One is to be quite *selfless*, erm... which is generally the approach we try and sell in the [names organisation] or to be incredibly, *?avidly? selfish*, you know, the ***** approach, maybe, you know, would be like (pause). I mean each of those would have their attendant stressors and erm... I can see... I can see what you need is a ??? in the situation very much but it can be completely different sets of... sets of stress. I think you choose your... I choose the way I go about what I do because I know I can cope. Erm, you know, whether that's limiting or not, I don't know, so if (pause-) if I thought to be successful in coaching, which is a pretty hard thing to measure anyway, I needed to change a lot, I think I'd be very reluctant to because I might not see myself able to change to... to be able to cope with those challenges. And I couldn't, if I was asked to be a very erm, not arrogant but strong, outspoken, erm, controlling leader, erm, at the moment, I don't think I could do it, not necessarily just because philosophically I don't agree with it, just that I don't think... I don't think I have the skills to cope with the pressures of setting yourself up to be knocked down the whole time.

I: So you're saying to be a successful coach, however you want to measure that, I guess you have to sort of stay true to who... your own philosophy, your own sort of style...

P: Yeah.

I: ... The things that you know you can cope with?

P: The things you can cope with and also that you believe in. I think if you're gonna do it for a long term... long term, I think that's absolutely it. (pause). If you came in to be a consultant and tried to sell something that someone else believed is right and you bought into it a little bit, I think you could do that. But I think long term over a number of years, that would be... it would be too stressful to... to put on someone else's ideas, erm... and that's, you know I think the coach has to be given... has to be able to do it their way, up to a point. Erm... yeah, just sort of one of the problems... yeah just sort of that contradiction between the team thing and the individual thing, it's quite, I think, er... for people to keep doing it long term, I think that's quite hard.

I: That's a cause of stress in itself?

P: Yeah.

I: Ok well thank you very much for that.

P: Thank you.

Appendix D

Ethics Approval for Study Three

Ethics application forms

Risk assessment forms

Participant information sheet

Informed consent form

CONFIDENTIAL



Sheffield Hallam University

Faculty of Health and Wellbeing
Research Ethics Committee

Sport & Exercise Research Ethics Review Group

APPLICATION FOR ETHICS APPROVAL OF RESEARCH

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Sport and Exercise Research Ethics Review Group before approving a project. **ALL** of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

1) Date of application	28th May, 2009
2) Anticipated date of completion of project	July, 2009
3) Title of research	Coaching Under Pressure: Factors influencing the success of World Class sports coaches.
4) Subject area	Sport and Performance Psychology
5) Principal Investigator	
Name	Peter Olusoga
Email address @ SHU	p.ulusoga@shu.ac.uk
Telephone/Mobile number	0114 225 5752 (office) / 07921 465 926 (mob)
Student number (if applicable)	15023313
6) State if this study is: (If the project is undergraduate or postgraduate please state module name and number)	<input checked="" type="checkbox"/> Research <input type="checkbox"/> Undergraduate <input type="checkbox"/> Postgraduate Module name: Module number:
7) Director of Studies/Supervisor/Tutor name	DoS: Prof. Ian Maynard Supervisors: Dr Joanne Butt & Dr Kate Hays

8) Intended duration and timing of project?	May-June, 2009 - Recruitment of participants June-Aug, 2009 - Conducting interviews Aug - Sep, 2009 - Data analysis and write up.
9) Location of project If external to SHU, provide evidence in support (see section 17)	SHU
10) State if this study is:	<input checked="" type="checkbox"/> New <input type="checkbox"/> Collaborative (please include appropriate agreements in section 17) <input type="checkbox"/> Replication of :

11) Purpose and benefit of the research

Statement of the research problem with any necessary background information (no more than 1 side of A4)

The first phase of this research project (Olusoga, Butt, Hays, & Maynard, in press), along with previous research findings, have identified coaching, especially in the arena of World Class sport, as an inherently stressful occupation (Taylor, 1992, Gould Guinan, Greenleaf, & Chung, 2002). Various organisational and competitive stressors were identified in the first phase, and coaches' responses to stress and the consequences of stress for them, their athletes, and, indeed, for their relationships outside sport were explored in depth. In response to stress, coaches experienced symptoms of burnout, such as emotional and physical exhaustion, lack of confidence and motivation, and withdrawal. Coaches also felt that their athletes' performances and attitudes could also be negatively influenced by their own stressful behaviour. Furthermore, an exploration of coaches coping strategies indicated that their use of psychological skills was generally limited and that avoidance and distraction were often used strategies for coping with the demands of World Class coaching. Based on the findings from studies one and two, one clear recommendation was that coaches could potentially benefit from developing the psychological attributes that might help them cope more effectively with the demands of a high pressure environment.

Although it could be argued that the primary role of World Class coaches is to facilitate their athletes' preparation and performance, as is now well established, coaches should be considered performers themselves, not least because they are expected to carry out their coaching duties in an exceptional manner, in a highly pressurised setting, with their jobs often depending on the success of their athletes and teams (Gould et al., 2002). However, although coach education programmes and the majority of research articles dedicated to coaching theory and practice make some reference to the ever increasing number of roles and responsibilities a coach must take on (Lyle, 2002), the factors that enable coaches to achieve success when coaching under pressure have never been explicitly identified, with the discussion instead often limited to a mere description of the roles. Furthermore, although recent research has identified coaches coping strategies and use of psychological skills, little is known as to how coaches have developed these attributes and coping strategies (Frey, 2007).

The purpose of the present study is therefore to explore, in depth, the factors that underpin coaches' ability to coach effectively in a highly pressurised, World Class coaching environment. The results of the study will help to drive coach education and development in the future.

12) Participants	
12.1 Number	8 individual interviews
12.2 Rationale for this number (eg calculations of sample size, practical considerations)	The practicality of accessing a sample of World Class coaches precludes larger group.
12.3 Criteria for inclusion and exclusion (eg age and sex)	Coaches must have coached an athlete (or team) to a medal on at least one Olympic games.
12.4 Procedures for recruitment (eg location and methods)	Purposive criterion sampling (Patton, 2002) will be used to select potential participants for this investigation. Because we want to explore the experiences of successful World Class coaches, the participants will be coaches from one of Great Britain's most successful Olympic teams (not named for reasons of confidentiality). Participants will be recruited via the Governing Body's Performance Co-ordinator, initially via email, with follow up telephone calls where required. It will be made clear that participation is voluntary and the nature and purpose of the study will be explained. Coaches will be assured that their comments will remain anonymous and data be treated confidentially.
12.5 Does the study have *minors or ‡vulnerable adults as participants?	[] Yes [X] No
12.6 Is CRB Disclosure required for the Principal Investigator? (to be determined by Risk Assessment)	[] Yes [X] No If yes, is standard [] or enhanced [] disclosure required?
12.7 If you ticked 'yes' in 12.5 and 'no' in 12.6 please explain why:	

*Minors are participants under the age of 18 years.

‡Vulnerable adults are participants over the age of 16 years who are likely to exhibit:

- a) learning difficulties
- b) physical illness/impairment
- c) mental illness/impairment
- d) advanced age
- e) any other condition that might render them vulnerable

13) Details of the research design

13.1 Provide details of intended methodological procedures and data collection.

(For MSc students conducting a scientific support project please provide the following information: a. needs analysis; b. potential outcome; c proposed interventions).

Because, to date, only limited research has investigated the factors underpinning the ability of coaches to perform successfully in a World Class coaching environment, interviews will be used as a method of data collection. Adopting this method allows us to gain a rich understanding of coaches' experiences and beliefs regarding their ability to coach effectively under pressure. To ensure credibility, experienced coaches will be purposefully sampled (Patton, 2002) from a sport with recognised international success (see inclusion criteria above).

The main interview will comprise two distinct sections. First, coaches will be asked about the factors that enable them to coach effectively in a high pressure environment like the Olympics. Coaches will be asked to consider their coaching role inside and outside of the performance arena (Jones et al., 2002).

The second major area of the interview guide concerns how coaches have developed any attributes and coping strategies they might have, and significant others who may have helped them.

As the purpose of the study is to drive coach education and development, these elite, experienced coaches will also be asked about any specific advice they might have for the training and development of less experienced coaches.

The interviews will last approximately an hour and will be tape recorded so that coaches' comments can be accurately reproduced. Due to the difficulty of accessing a World Class sample of coaches, all interviews will be conducted via telephone.

13.2 Are these "minor" procedures as defined in Appendix 1 of the ethics guidelines?

Yes No

13.3 If you answered 'no' in section 13.2, list the procedures that are not minor

13.4 Provide details of the quantitative and qualitative analysis to be used

Each interview will be conducted by the primary investigator, will be tape recorded, and transcribed verbatim. The content and transcriptions of each interview will be read and re-read until familiar and will be analysed by three researchers, following procedures outlined by Gould Eklund, & Jackson (1993) and Gould, Dieffenbach, & Moffat (2002).

Three researchers will individually code themes (quotes or paraphrased quotes representing a single meaningful point or thought) characterising each athlete's responses to the interview questions. Consensus between all 3 researchers will be reached through extensive discussion and group meetings.

If there are disagreements between the researchers, transcripts will be re-read and further discussion followed until triangular consensus is reached. During these

discussions, particular credence will be given to the views of the principal researcher who carried out the interviews and listened to and transcribed the audio tapes.

Responses from each coach will be compiled resulting in a list of raw data responses for each question in the interview guide. Raw data responses will be organised into groups of like responses to create a lower order themes. These lower order themes will again be grouped into larger meaningful groups or higher order themes. Again, group discussion will ensure that triangular consensus is reached over the theming of the raw data responses.

14) Substances to be administered (refer to Appendix V of the ethics procedures)

14.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements.

Please tick box if this statement applies and go to section 15) [X]

14.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.

N/A

15) Degree of discomfort that participants might experience

Consider the degree of physical and psychological discomfort that will be experienced by the participants. State the details which must be included in the participant information sheet to ensure that the participants are fully informed about any discomfort that they may experience.

No physical or psychological discomfort should be experienced by participants. However, the participant information sheet reminds participants that all data will remain anonymous, and that they are free to withdraw from the study **at any time without prejudice**.

16) Outcomes of Risk Assessment

Provide details of the risk and explain how the control measures will be implemented to manage the risk.

Participant information sheet will explain to participants that all data will be treated confidentially. Participants will be reminded of this prior to the commencement of interviews and will also be assured that any references they might make to people or other places, will be removed from the transcripts.

17) Attachments	Tick box
17.1 Risk assessment (including CRB risk assessment)	X
17.2 COSHH assessment	
17.3 Participant information sheet (this should be addressed directly to the participant (ie you will etc) and in a language they will understand)	X
17.4 Informed consent form	X
17.5 Pre-screening questionnaire	
17.6 Collaboration evidence/support correspondence from the organisation consenting to the research (this must be on letterhead paper and signed) See sections 9 & 10.	
17.7 CRB Disclosure certificate <u>or</u> where not available CRB application form	
17.8 Clinical Trails form (FIN 12)	

<p>18. Signature Principal Investigator</p>	<p>Once this application is approved, I will undertake the research study as approved.</p> <p>If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor. If the supervisor advises that there should be a resubmission to the Sport and Exercise Research Ethics Review Group, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.</p> <p>Principal Investigator signature <i>P. Olusoga</i> Date 28/05/2009</p> <p>Name : Peter Olusoga</p>
<p>19. Approval Project Supervisor to sign either box A or box B as applicable</p> <p>(refer to Appendix I and the flowchart in appendix VI of the ethics guidelines)</p>	<p>Box A:</p> <p>I confirm that the research proposed is based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore does not need to be submitted to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.</p> <p>Project Supervisor signature <i>I. Maynard</i> Date 28/05/2009</p> <p>Name : Prof. Ian Maynard</p>
	<p>Box B:</p> <p>I confirm that the research proposed is <u>not</u> based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore <u>must</u> be submitted to the HWB Sport and Exercise Research Ethics Review Group for approval.</p> <p>I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>----- Project Supervisor signature _____ Date _____ Name _____</p>
<p>20. Signature Technician</p>	<p>I confirm that I have seen the full and approved application for ethics approval and technical support will be provided.</p> <p>Technician signature _____ Date _____</p> <p>Name _____</p>



**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Operating Group**

Risk Assessment Pro Forma

Procedure	Coaching Under Pressure: Factors influencing the success of World Class sports coaches.
------------------	---

Assessment Number	01
--------------------------	----

Date Assessed	28/05/2009
----------------------	------------

Assessed By	Peter Olusoga
--------------------	---------------

Signed	Position
	Principal Investigator

Hazards	Risks and Specific Control Measures
Psychological discomfort involved in recall of highly pressurised situations, feelings of anxiety, and perceptions of sport psychology consultants.	<p><u>RISK</u> (Likelihood X Consequence) 2 X 1 = 2</p> <p><u>CONTROL MEASURES</u> Participants informed and reminded that there are no right or wrong answers and confidentiality will be maintained. Furthermore, participants will be reminded that they do not have to answer a specific question if they choose not to and they are free to stop the interview and withdraw from the study at all times.</p>

Risk Evaluation (Overall)
The risk assessment has highlighted distress occurring from recall as a potential hazard. However, given the nature of the study, the overall risk is extremely low. There is a small likelihood of adverse effects occurring as a result of stressful recall. However, the focus of the interviews is positive experiences and characteristics involved in coaches' success. As such, the likelihood of any psychological discomfort being experienced is extremely low.

General Control Measures
Is a pre-screen medical questionnaire required? Yes [] No [X]
Participants will be informed that any information given in the interviews will remain strictly confidential. Participants will also be reminded that they do not have to answer a specific question should they choose not to, and are free to stop the interview and withdraw from the study at any time and without prejudice.

Emergency Procedures
N/A

Monitoring Procedures
Prior to commencing the study, the principal investigator will pilot test and review the interview guide. The principal Investigator has previous experience of qualitative interviewing and has been trained in qualitative methods.

Review Period	
---------------	--

Reviewed By	Date
<i>I. W. Magwood</i>	28/05/2009



**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Review Group**

Participant Information Sheet

Project Title	Coaching Under Pressure: Factors influencing the success of World Class sports coaches.
----------------------	---

Supervisor/Director of Studies	Dr Joanne Butt, Dr Kate Hays / Prof. Ian Maynard
---------------------------------------	--

Principal Investigator	Peter Olusoga
-------------------------------	---------------

Principal Investigator telephone/mobile number	0114 225 5752 (work) / 07921 465 926 (mobile)
---	---

Purpose of Study and Brief Description of Procedures <i>(Not a legal explanation but a simple statement)</i>
--

Athletes' experiences of stress have been researched in detail over the last 20 years, but their coaches' experiences of stress have largely been ignored. The first phase of this research study was concerned with identifying the sources of coaches' stress, the ways in which they responded to stress and the coping strategies they used to help them deal with stress. Coaching has been identified as a stressful occupation, especially at the elite level, and the purpose of this study is to help future coaches understand what it takes to coach at a world class level, and to achieve success in an inherently stressful environment.

The aim of this study is to identify the factors that enable coaches to be successful on the Olympic stage. The study involves an interview in which you will have the opportunity to discuss what you feel are the key attributes of a successful sports coach and some of the factors that might have helped you in your development as a coach. There are no right or wrong answers, and at the end of the interview, you will be given a chance to talk about anything you feel is relevant that was not covered by the questions.

Interviews will be conducted at a time and location suitable for you, or might be conducted over the telephone if this is more convenient. The interview will last approximately an hour and will be tape recorded so that your comments can be accurately reproduced. The recording will only be used to analyse the interview data and will not be kept afterwards. Neither your name, nor any other identifying information will be attached to any comments you make, and the interview data will be treated confidentially.

You have the right to withdraw from the study at any time.

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the Faculty of Health and Wellbeing Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.



Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Review Group

INFORMED CONSENT FORM

TITLE OF PROJECT:

Coaching Under Pressure: Factors influencing the success of World Class sports coaches.

The participant should complete the whole of this sheet himself/herself

Have you read the Participant Information Sheet?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
To whom have you spoken?	
Do you understand that you are free to withdraw from the study: • at any time • without having to give a reason for withdrawing	YES/NO
Have you had sufficient time to consider the nature of this project?	YES/NO
Do you agree to take part in this study?	YES/NO

Signed Date
(NAME IN BLOCK LETTERS).....

Signature of Parent / Guardian in the case of a minor
.....

Study 3 Interview Guide

Date
Time
Location

Introduction/Checklist

Thanks

Intro – studying stress and coping.

Overall purpose – to help younger, less experienced coaches develop attributes that will help them cope with the demands of coaching.

Research to date – as explained in initial email – first phase causes of stress, responses and coping in elite sports coaching.

- Organisational and competitive stressors
- Physical, emotional, behavioural responses affecting coaches and athletes
- Some coping strategies but overall, not so good
- But still manage to achieve a level of success. SO.....

Purpose of today – insight into:

- As an experienced coach, what makes a successful coach?
Eventually this will help up and coming coaches identify their own strengths and areas for improvement and might have an impact on coach education in the future.

Quick ground rules

Should last around 60 minutes

Tape recorded – analysis only

Future publications and confidentiality – won't be identified.

Free to withdraw consent without prejudice

Might have to move conversation on to keep to schedule

Any questions?

Introductory questions –some background (experience etc)

PART ONE: Introductory Questions

Q0 Background, experience etc.

PART TWO: Factors Influencing Success

Q1 The Olympic environment has been identified as highly demanding for coaches and athletes alike. What do you feel are the factors that influence your performance as a coach in such an environment?

- Why do you feel that this is an important attribute/skill?
- Example of when you've demonstrated this in your own coaching?
- Can you think of any more attributes that would help you be successful in a stressful environment like the Olympics?

Q2 How do you, as coach, prepare for the demanding Olympic environment (do they neglect themselves while preparing their athletes)?

Q3 If Psychological Skills discussed, probe around following areas.

- Are you taught skills to use for yourself (rather than with your athletes)
- What psych skills do you get from coach education/training/workshops?

PART THREE: Development of Skills/Attributes

You mentioned a number of attributes/skills/factors so far.....

Q4 As a coach who has been successful at the Olympics, how have you developed _____? - experience/courses/mentoring?

- Has anyone or anything specifically helped you develop _____?

PART FOUR: Advice

Q7 What advice would you give to someone less experienced than you, to help them become a more successful coach?

- What should appear in training and development programmes that will help developing coaches prepare for the demanding environment of the Olympics?
- What might you have done differently in your preparation?

Q6 What, if anything, do you feel you need more of, as a coach, to help you cope with the demands of the Olympic environment?

- Is there anything that you don't feel equipped to deal with?

PART FIVE: Sport Psych Questions

Q8 Have you had the opportunity to work alongside a sport psychologist?

- Who were they working with (coach/athlete/both)?
- Whether you have or you haven't worked with a psych, what do you feel is the role of the psychologist?
- What do you feel is the role of the psych in developing the relationship between the coach and the athlete?

Appendix F

Example Transcript from Study Three Interview

Interview 2 – C2

Interviewer: Ok. I just wanted to start really by asking you a little bit about your background, how you got into coaching?

Participant: The classic answer I always give as to how I got into coaching is by accident. And that's probably actually pretty much the truth. Erm... I trained originally as a *****. I was what you describe as a keen, barely competent, amateur athlete, couple of national titles to my credit, nothing more than that, erm... and never gonna be any better than that. I... I started coaching, well, almost exactly 20 years ago. I had no coaching skills, no coaching qualifications, absolutely, completely nothing. Erm... and in very simple terms, one of our [sentence removed to preserve anonymity of participant]. She was [states nationality], [sentence edited for anonymity]..., erm, and I kind of slowly and imperceptibly got drawn into coaching her, which I did for a period of about 10 years.

I: Ok, so what sort of experience do you have then, as a coach. Presumably you've developed as a coach since then and...

P: Personally, I've been, in one capacity or another, not always as a coach, I'm now the ***** for the team... I've been, in one capacity of another to the last five Olympic Games.

I: And how many of those have you been to as a coach?

P: Two as a coach. Two as a ***** , two as a coach.

I: And have you had successes as well?

P: [paragraph removed to preserve anonymity].

I: Ok, brilliant. Well, the Olympic environment itself has been identified as being particularly demanding for athletes and for coaches. What do you feel are the important attributes needed to be a successful coach in an environment like that?

P: I can answer that by... it's very simple to me. A great American athlete named ***** , who you might have heard of, er... three times ***** winner, was once interviewed by a journalist asking him about what was required, what did he look for when he was recruiting his [sentence edited again to preserve anonymity] And that, to me, pretty much sums it up for elite sports coaching. My view is that if you want to be an elite sports coach and you want to win at the highest level as a coach, you have to be prepared to a great extent to subjugate your entire life to that endeavour.

I: Can you tell me a little bit more about that?

P: I think that the... the great coaches that I'm involved in and the ones that I know and that I have huge respect for, and the people who I, you know, treat as my role models in coaching, are the people who totally immerse themselves in every aspect of the coaching process. And they are the people who don't say "it's not my job." They don't say "somebody else will deal with that." They're the people, whatever it is that's

involved and whatever is required in winning, willingly take it on. And... and that is people... Sometimes, you know, people who get involved and things like... and maybe it's somewhere you don't have expertise. I mean, you know, let's just say you... you... you don't have expertise in nutrition; just use it as an example. But they feel it's something important to their athlete or they're squad of athletes. They'll go and get the books, they'll go and talk to the nutritionist, they'll go on the internet, they'll find out what they need to know and they'll educate themselves, and they will put themselves in a position where they can work with their athletes. Whatever particular area it is that they need to do, then they will do it and, you know, they are the people who will shirk nothing, who will stop at nothing, who will work 15 hours a day, days a week. And that is an absolutely common trait that runs through the people that are really conspicuously successful, year after year after year, winning medals with their athletes.

INDEX 01

I: Ok, well...

P: I think the other thing just, sorry, just to press the rewind button back on that as well, you must also have all... you must have the technical skills to do it as well. That's a given. If you haven't got the technical skills, forget it. Well, even that's not true. You can learn and gain the technical skills, but you can't learn commitment. Commitment is something... I mean that is the key, you can't learn commitment. If you're dedicated and committed enough, you can learn almost anything else you need, but you can't learn commitment.

I: Ok. Well, you mentioned technical skills, immersion in the processes... you feel are some of the more important attributes that would help you in that sort of stressful Olympic environment.

P: Well, the key things for me, and I'd be the first to admit that I wasn't very good at this and it is a skill that I've taught myself, is that, as a coach, you need to have erm... you need to be very level, but particularly in [names sport], which is a very psychological game, you almost need to have er... well there are two aspects, there's the training coaching and there's the performance coaching, you know, are you competing or are you training, and you need to... you need to separate those. In the performance area, you are largely a psychologist. There's very little you can actually do to your athlete, you know, to help them do anything, you know. It's not like a golf caddy where you can make suggestions or whatever, they're out on [edited] their own, and it's very important to be quite level and not to, in a way, not to get too emotionally involved in what's going on. And I always felt it was that it was very important to be quite, you know, controlled when your athlete was winning and doing well, and equally, never to be disappointed or upset when your athlete wasn't doing well, because that er... you know, that just compounds their problems, and particularly, you know, your athletes that do well in races, and if you get very excited and they get very excited between events, and then suddenly they haven't focused on what they need to do for the next event. So it's very important, you know. Your athlete wins [an event] on the day and they come alongside the coach and, you know, I would typically say "yeah, well done,

nice job, right, what are we gonna do in the next one?" You know, that's it, we've done that [event], move on, that's history. Yeah great, it was a win, but we've gotta move on. Likewise, if they have an absolute shocker, you know, you've just gotta be able to say "that was a bad deal, we've had a bad [event], what are we gonna do in the next one, how are we gonna get moving from here?" So very important not to ride the emotional rollercoaster with your athletes.

I: So you maintaining that level of emotional control, I guess is something that helps keep the athletes on an even keel?

P: Yeah, absolutely. Absolutely. And it's about being able to read the situation and to understand, you know, whether they need a little lift, or whether they just maybe need bringing back down a little bit. You know, they... live in this very narrow zone between too much arousal and... and... erm... kind of you know, being over pumped up, and not being quite revved up and ready to go enough, and you've just got to get them in the right space.

I: So is that something else that you'd say was an attribute then, being able to read what the athlete needs...?

P: Yeah, it took me about 17 of the last 20 years of coaching to be able to do it, to be honest with you. So I mean, for example, in my role as ***** at the Olympic Games, very often when the athletes are coming [back from an event], or from the day's [events], I won't actually know what their results are. And I thought long and hard about that and I've used exactly the same format... I mean it's pretty boring, but it works... I've used exactly the same format for every single athlete on every single day of the last two Olympics, 2004 and 2008. And my first, and generally speaking, only question to the athletes when they come [back] at the end of the day is: "is there anything I can do to help you?" Not "how did you go today?" or "have you had a good day?" or any of those things, because that's a very emotional question, have you had a good day? If they've had a shocker, that might not be just what you wanna talk about. And if you've had a good day, they'll talk about it anyway. So "what can I do to help you today?" is always my question; "is there anything I can do to help you?" [sentence edited]. Fine, what can we do, how do we do it, let's crack on with it. No, thanks. Right, ok, cheers, thanks, see you later, bye. So very, very important.

I: Right, ok...

INDEX 02

P: And... sorry... and I think the other thing that's important, and it's taken me far too long to learn this... far far too long to learn this... is all about learning styles and information assimilation. I am naturally a technical person.

[paragraph edited to protect anonymity of participant and sport organisation]

And you think right, well that's not quite the crisp data that I want. And in general terms, a very broad generalisation - but it's not far from the truth, is that most of the

athletes that we work with have very visual and kinaesthetic communication style, “it felt better”, “it looks nice”, “I thought it was going well”, are the kind of communications that you’ll get from them. Left to their own devices, I will tell you that it’s [described technical information related to the sport]. Give them that information and they just look at you as if you’re some kind of alien from outer space, and it’s absolutely about tailoring the communication between the athlete and the coach in a form which is mutually acceptable to both parties. And that to me, certainly in my role now leading the technical team, that is the one single thing that I would ask my... my technical, my performance analysts and my [names other support staff] I would ask them to think about that every single hour of every single day, because information without knowledge is wasted.

I: And I guess this is for the benefit of the athletes themselves, being able to understand that information...?

[Participant described technical information related to the sport in detail and then suggests how he might deliver that information to the athletes....]

Now we actually have a lot more data about them than that, but with most of our athletes, not all, if you make it any more complicated than that, it’s not even that they don’t understand, they don’t even get to the point of not understanding. They just switch off and they don’t even absorb the information.

I: So is this something that you would apply to your coaching as well as just the technical aspects...

P: Absolutely. Absolutely. It is just the most important thing. You have to use a communication style which is appropriate to the athlete that you’re working with and the message that you’re trying to get over. And I... sometimes I get really cross in this organisation because people say to me things like “I’ve told them four times and they still haven’t listened.” And I say, “if you’ve told them four times, and they still haven’t got the message, it’s because frankly,” I mean, I try to put it a bit more subtly than this, but in simple terms, “if you’ve told somebody four times, and they haven’t understood, it’s because you’re delivering the message wrong... (pause) and you need to think of another way of delivering it.” And I think if I had a criticism of the organisation that I work in, and it’s basically at an organisational level and a personal level, is that we are very prone to confusing information with communication. And I think that you have... to be a successful coach, you really have to understand communication, which, of course, involves information. But information does not necessarily involve communication.

I: Ok. Can you think of any more attributes then, that would help you to be a successful coach in a demanding environment such as the Olympics?

P: I think people are very varied within their... within that environment. I think their psychological profiles, I think you would find, were surprisingly different. I... I know people who are coaches who are outwardly pretty strong and you would say, you know, these are pretty tough guys, you know, and they would do everything that needs to be

done, who go back to their hotel rooms in the evening and can barely hold themselves together. And the next day they'd get up and, you know, put on a kind of public persona. And I know guys who genuinely are tough guys who just crank it out all the time. And I think we're a very varied bunch. I often wonder that erm... whether successful elite athletes can and do make good coaches. It seems to me that the sort of alpha psychological attributes that you need to be a successful performer, which essentially are selfish and about me, are not necessarily appropriate to being a top level coach, which are essentially outwardly focussed and about you.

I: Ok, can you tell me a little bit more about that?

INDEX 03

P: I think that the... the people who are those alpha type characteristics find it very hard, either consciously or subconsciously, to allowing somebody else to do the competing and taking the glory and being the centre of attention. And I think that is an essential attribute of being a coach. Being a coach, essentially, is about giving, giving something, part of yourself, to somebody else to allow them to be successful.

I: So that ties in to what you were saying right at the start about commitment and subjugating the self...

P: Yes. Absolutely. I mean, I think if you look at the... if you look at the very best coaches generally, and it's a very broad generalisation and they are very dangerous things, the people who have... who I really, really respect as coaches, generally speaking, are people who in their own career as athletes have kind of tripped the borderline between... they're certainly not failures, they've competed at the highest level, but probably not won at the highest level. I mean I take... the two who, for me, are the absolute epitome of that are Johan Bruyneel - who is a cycling coach who was a good, you know, good pro-cyclist, won a couple of legs of the Tour de France, never actually won the thing - and... and Alex Ferguson at Manchester United, who, you know, was a good journeyman footballer, but, you know, he was never Ronaldo. But clearly and obviously is indescribably effective as a coach. And I think, and it's just a guess on my part, that those people, deep down in their own psyche realise that they can't didn't, wouldn't aren't going to make it in their own right, and therefore do feel that they want to give something of themselves to allow others to be successful.

I: Well just before we move on the next little bit, is there anything else that you can think of... any other psychological attributes, for example, that would help you be successful in a...

P: Well I think there's one thing, and it's something that I have a very strong feeling about, and that is that I think in general, erm... in sport in general, in our sport in particular, we are very poor at coaching females and that the... the majority of sports coaches are male. It is a... sport is a male dominated environment, you know, sport I think it's generally agreed is a sort of analogy for hunting and war, which is not naturally, in evolutionary terms, in female territory, and that we don't do coaching girls well, and that we don't understand, in generalist terms, that they are very different.

They're needs, wants, responses are very different from coaching boys and... and if we use the same techniques for teaching girls as we use for teaching boys, then we are almost certainly doomed to failure.

I: So is that again, about understanding your athlete, you know, sort of taking that to the nth degree?

BP: Yeah, it's about understanding your athlete and you know, without wishing to sound either contrite or controversial, it's about, generally speaking, it's about boys understanding girls, which is a pretty difficult thing to do. But I think there have been some programmes put in place. Erm... a guy called [names person **] who works with [names sport] who would definitely be worth you speaking to, he's done a lot of work with [names sport] and that has really reaped success for them. Really, I mean, he's actually a clinical psychiatrist by training, has now retired, and is working within [names sport], and his main focus is about... well one of his focuses is about getting the coach to work appropriately with the female athletes. And I think we do it very poorly and erm... I... I would like to think that having success with two girls, well, sort of three girls campaigns really, that I'm ok at it. I wouldn't claim to be great at it, but I've sort of got a bit of an understanding, and I think that it is particularly difficult when you have your leaders, your team leaders – not necessarily your coaches but your team managers – are... they tend to be what I call alpha mindset people. That's the kind of people that tend to be recruited as team managers, And they, of course, are probably the worst possible people for trying to understand those kind of things. Does that make sense?

I: Yeah, that makes sense. It's interesting stuff actually. Well, just before we move on to the next little but then, unless there's anything else you can think of...

P: No, that's... no that's my bit on that one.

I: Ok, well you mentioned a few things so far then. You mentioned commitment, obviously having the technical skills as well, but maintaining that level of emotional control... as a coach yourself, who's obviously had success at the Olympics, how have you developed these attributes? I mean you said before that you taught yourself and it's taken a long time, but how have you developed these attributes that you've talked about?

P: I've developed them largely through self-education and making a lot of mistakes. Niels Bohr, the great Norwegian physicist, defined an expert as a man who has made every conceivable mistake in a very narrow field of expertise, and I kind of put myself a bit in that group really, more with the mistakes than with the expert bit. Erm... I would say, I did one 2-day course, run by what was then the National Coaching Foundation, in the mid 1990s about 95 or 94, maybe 93, I can't honestly remember, which was run by David Hemery and John Whitcombe, called "A Question of Style". And I can absolutely say that that one 2-day course essentially made it possible for me to be an effective coach.

I: How so?

P: Because it... it gave me a single fundamental realisation. And it was this. The realisation was this: that I was there, not to tell the athlete what to do or to direct the programme. I was there to facilitate a process of self-learning and self-discovery by the athlete, and to allow them to develop themselves as... as a [athlete]. And I absolutely believe to this day that once we start to work... I mean obviously when you're working with youth and junior and so on, it's a bit different, but once you start working with elite athletes, there is very, very little that we can tell them or show them, that makes any difference to what they do. What we can do is facilitate their own process, facilitate and expedite their own process of learning those things themselves. And I... I'm an absolute believer, be it aged 7 or 70, in general terms, we learn from what happens to us, not from what people tell us, and part of our... most of our job as coaches, is to make sure people do learn the lessons from what happens to them. And that course, essentially, was about coaching by asking questions, rather than coaching by giving information. And I think in elite coaching that is probably as true now as it ever was, certainly in the immensely open skilled sport that we operate in. I don't have any experience of coaching closed skill sports and I'm not therefore not really very well able to commentate on what the situation might be there, but certainly in an open skill sport, where the athlete is participating largely on their own, the... the process has to be internal, within the athlete.

I: Right. So apart from that course then, have been on any other kind of training and development?

P: We've done some CPD within the [names organisation] here. I did one or two sessions with this guy [names person **], from which, in the nicest possible way, I probably didn't learn very much, but it confirmed and reinforced a lot of things that I had kind of... and put context on a lot of things I sort of thought I knew anyhow, which was immensely valuable. I thought he was brilliant and I learned a lot from a couple relatively short sessions with him. In general, I think the CPD that we do here that involves external er... input, is much more valuable than the CPD which is done with internal input. I think in general, we are... and the other thing I did, god, don't let me forget about this... I kind of almost by accident got sucked into a thing that [names organisation] ran, which was, I think they still run it, which is a fast track career development programme for young practitioners, coaches, support staff, various other people, and I got dragged into that as a mentor and we had... I did it for two years, there were 6 sessions a year, each of which was one and a half or two days, when all the mentors got together and effectively it was some CPD for us about learning styles and management and managing change and innovation and various things like that, and I would say that those were enormously valuable as well. And I think they were enormously valuable, particularly from a sort of management perspective, and I think that's as well, something that we do very poorly, is that we take people like myself for example, who are probably, well, I like to think I'm a reasonably good ***** and did a reasonably good job with the sort of technical things, and then I moved from being a kind of hands on guy, you know, [sentence edited for anonymity], to managing a programme and having people working for me. And I'm kind of just expected to get on with it, yet there's no sort of training, there's no management programme, there's

nothing for people within sport in the UK that I can see. If it exists, I don't know where it is.

I: So this course with all the mentors...

P: Was really valuable for me. Really, really valuable for me. To be honest with you, I find the internal CPD which is done here, is frankly a bit wishy washy, and is probably useful for the people a bit lower down the chain. I've long taken the view that if we really want to lay the foundations for long term success in sport that we have to take the education of our coaches more seriously.

INDEX 05

I: Well I have a few questions about that a little bit later on, but has anybody, staying on this theme of how you've developed the attributes you have, has anybody or anything specifically helped you to develop them?

P: Well reading books by other coaches, I think is very interesting. And that kind of, if you like, takes you back to that commitment thing. You know, the people who are committed, and I consider myself in that group, you know, I probably read two or three books a year that are essentially, if you like, autobiographies of other coaches or maybe sportsmen, and... and you learn things from that You don't necessarily agree with everything they say, or think what they do is right, but you do learn from it. So that's a valuable source of information. Erm... I think some of the inter-sports stuff that we do, so I do a bit of work with [names sport], a bit of work with [names sport], a bit of work with [names sport], is all very informal ad ad-hoc, and I think you often go to meetings, I mean I went to some stuff, we had 2-day meetings about clothing for 2012, where I learned a lot of things from ***** and ***** that were nothing to do with clothing, just by being with them for two days. And I think, well maybe that's good that it's just ad-hoc, maybe we should try and do more integrated stuff, I don't know, but yes, I've learned stuff that way.

I: Do you yourself, do you use any psychological skills erm... that would help you coach under pressure?

P: The answer to the question is, unquestionably yes. Do I do it consciously and in a structured way? No.

I: Ok, can you expand on that a little?

P: Yeah. So, do I say to myself... well here's a good example: do I use any psychological skills? Well, I've given you a good example, one of my examples is the one of what do I do with my athletes when they come [back from an event]. I... I ask them what can I do to help you because I recognise it's a non... it's a non challenging question. So I've stopped and I've thought about that. But do I go out [edited] with athletes and say, right today I'm going to use coaching style A, and I'm going to this, and the little psychological trick I'm gonna use to catch them out is ? No, absolutely not.

I: In terms of for yourself though, I mean coaching under pressure in that sort of environment, do you find yourself using any psych skills erm...

P: Well, hang on, let's just talk about coaching under pressure. I'm never under any pressure. That's kind of what I always say to myself. I go to the Olympic Games and I say look, whatever is going to happen is gonna happen. I'm not gonna win one single medal here, and nor am I gonna lose any. I'm not under any pressure. "Every day the same" is one of my mantras at the Olympic Games. Good day, bad day, up day, down day, every day the same is what I want to do. I wanna get up at 7 o'clock, [coach describes technical aspects of the sport and the routine he would always go through] and I wanna go to bed a half past nine, and I wanna get up the next day and do the same thing again. And... and to me, if I could do that for 13 consecutive days at the Olympics, that's a fantastic outcome. And it's up to the athletes to win medals or not to win medals. Every day the same, that's my mantra, always, at a big event. Now, sometimes the wheels come off and you've [coach discusses things that can go wrong], and now you've gotta get yourself sorted out and... and... and , you know I honestly think, and here's another one of my little watchwords, if you like, during the course of a major event, an Olympic Games, I will probably have two, three, at most half a dozen opportunities, to specifically erm... impact upon how many medals we do or don't win. No more than half a dozen, perhaps only two or three opportunities to impact. You've gotta make sure that when those opportunities come along, you are absolutely in a position to respond. Don't mistake effort for outcome. You can graft away all day, running around like a headless chicken, but it's the outcome that matters. And make sure, this is a key thing I suppose, make sure that when the opportunities to influence the outcome of the [event] come along, you, whether you're a coach or a *****
***** , or a ***** , or the team manager, or ***** , whatever it is, make sure you are in the right place, in the right frame of mind, to be able to grasp those opportunities to make a difference to the outcome of the event. 'Cause frankly, most of the time, you can't do much. But the key moments, when they come, boy, you gotta be able to do it.

I: So what do you do to prepare for that sort of Olympic environment?

P: Well, it's about being, and I suppose it comes back a little bit to this thing about commitment, it's about being absolutely immaculately prepared and have thought out and thought through every possible scenario that could happen, plus a few that can't happen but maybe still will. And it's just about preparation. Preparation, preparation, preparation, preparation. Just about being on top of every single thing, and it kind of rolls back into the commitment thing. There is no stone that is too small to be left unturned in doing things. And I'll break it down, literally into nuts and bolts, you know, so we have a situation.....

[Here the coach discusses several problems that might occur and the meticulous preparation that is needed in order to avoid those problems. The section has been edited as it contains information that could lead to the identification of the sport/coach.]

I: Yeah. So I was gonna say, you said earlier that there were times when the wheels do come off a little bit, what do you do to cope when that happens.

P: It's about confidence. It's about having been in that situation before and it's about knowing that if you have to, you can work all night in order to solve the problem, it's about knowing you've got the tools and equipment, and it's about preparation, and by knowing that I've got the tools, I've got the equipment, I've got the skills, I've got the back-up, and it's really also, I suppose at that point, that's one of the points at which the strength of your team comes in, and it's about knowing that you've got people standing behind you, and it's about knowing that if you have got to do an all nighter, we've had a couple, we had a couple at the Games last year, that your mates are gonna come down from the hotel and there gonna put your supper in a plastic bag, and, even when they're not allowed in because security say they can't come in, they... they've got the balls to put your supper in a plastic bag and tie a know in the top and chuck the thing over the fence so at least you've got some supper to get you through the night, you know? And... and... and it's about knowing that you've got other people in the team... I mean we had a bun fight [?] with one of the [competitors] in [names country] last year, and two other guys came and worked on it all night with me. Didn't have to ask them, they just came in, "right, do you need anything? What can we do?, What do you want us to do to help you here? Right, ok, done, in we go." And knowing that those guys also have the skill and the expertise and the experience to do what needs to be done. So teamwork – knowing that you've got a team standing behind you is just vital at that point. And about confidence and preparation.

I: And again, this applies to coaching as well as the technical stuff as well?

P: Yeah, absolutely. And about experience. It's about experience, you know? That... that first time you have to do an all nighter, that's pretty hard. By the time you come to the tenth one, it's just, you know, it's just another job to do.

I: Ok, so what, if anything, do you feel you need more of as a coach, to help you with the demands of the Olympic environment?

P: I think the one think that I would want, and this might sound very harsh, I just want a high level of commitment from the people that are around me. I often feel that the people who are around me don't always quite share my level of commitment for it. I know that sounds like quite a harsh thing to say but I... I sometimes feel that they... they're just not quite as up for it as I am.

I: Is there anything that you don't particularly feel equipped to deal with?

P: I think one of the things that I worry about, and I think it is an increasing problem and I think it is inevitable, is that as more money comes into sport, particularly as the government puts more money into sport, we become more accountable, in inverted commas. And that leads to a lot of bureaucratic process and a lot of goal setting and targeting and needless filling in of forms and things like that. And I need all those people to go away and to have the trust and confidence in me, just to allow me to get on and do what I'm good at. And maybe that's something I need less of not something I

need more of. The people who are good coaches are gonna be good coaches, irrespective of what goals or targets and things are set from them. Those are not people, you know, Alex Ferguson is not gonna make the slightest difference to the premier league or not, whether anyone fills in his timesheet and records the number of miles he's driven each year, and how many bloody buns they've eaten at training sessions and all the rest of it. It's not gonna make any difference at all as to whether he's gonna win the Champions League or not, he's fully fired up, ready to do it anyhow. And all those things that put a drag on that process are bad, and I feel that there are being some drags applied to us. Now you might argue that the people who... anybody who needs those kind of targets and goal setting and organisation and management, they should bugger off anyway 'cause they're never gonna do it.

I: Ok, well if I can ask you to think back to your first Olympic experience then, as a coach, is there anything that you feel... or what do you think you might have benefitted from, a little bit more...?

P: I think it's easy to put a whole list of things together, I could have done more of this, I should have done more of that, I could have had more training, de dah de dah de dah. I think really, if you're brutally honest and realistic about it, you know, everybody has to go to their first Olympics. So my view would be actually, you know what, with the benefit of 20 years hindsight, probably nothing.

I: So what advice, then, would you give to someone less experienced, to help them become a more successful coach?

P: Immerse yourself in it. Those would be the words I would use. Deeply immerse yourself in the process, and be fanatical about the process of everything that you do. And just accept that you have to serve your time, you know, it's not gonna happen overnight, you know? It took Alex Ferguson 9 years to win what was then the first division after he took over as manager of Man United. I'm not a Man Utd fan by the way, but I am a great, you know... Nine years it took him. Can you imagine in the modern premier league, any manager being allowed nine years to build that success? And... and I think... think long term, and immerse yourself in the process, and be committed to what you're doing, and accept that success won't come straight away.

I: Well, you mentioned before about a couple of things, but what do you think should appear in training and development programmes that might help developing coaches prepare for such an environment?

P: Well I think it's about... it's back to training the coaches, you know, educating the coaches is no different to improving the athletes, and it's about providing an environment, a caring, nurturing, supportive environment for those coaches. And I must say when I did it, I always felt very unsupported at the beginning, and very much like I was operating in a vacuum and, you know, the sporting landscape has changed a bit since then so I'm maybe not a good person to talk to to get a view of the sort of modern, relevant landscape, if you like, but... I think certainly a lot of education about communication and learning style and about really understanding, you know, if every

one of our coaches here could go and do that course with Whitmore and David Hemery, they would all be better coaches. It's... and it's about... if you're going to deliver education, development, whatever you wanna call it, to coaches, make it really, really, really high quality. You know, our coaching development manager, [edited portion] does a pretty good job, but for 20 grand a year, you don't get David Hemery.

I: So by high quality you mean...?

P: Just high quality. Just get the really absolutely the best people in their field to come and do that process for you. If that means you do two days a year instead of ten, I'd rather have two days of really top quality stuff, than ten mediocre.

I: Ok. Is there anything else then, that you think might benefit the younger coaches, again, from your own experience as a coach, as you've developed?

P: No, I think... well let's just think. I mean commitment, commitment, commitment, commitment, and process and process and process and commitment. And you have to be absolutely involved in the whole thing... I think is the key lesson that I would take from it. And not to allow yourself to be dragged in to the sort of administrative bureaucratic sort of quagmire of goals and targets and planning and we've got all sorts of stuff here, and information technology and reporting systems and all the rest of it. And it's all very fine and well, and it makes your team management look good, but at the end of the day, it doesn't win you any medals. That would be my view, you know, really focus on what's important and just do more of it. Whatever it is, just do more of it.

I: So again, just immersion, and commitment...

P: Yeah, and accept, I mean I think it's pretty important to understand, if you go into this game at the top level and you want to... if you wanna coach kids after school, great, you know. It's really nice and you know that at 6 o'clock, their mums and dads will come and pick them up and you can go home to the pub. Fantastic. But if you wanna get involved in top level sports coaching, you've gotta understand right from the start, it's 24 hours a day, 7 days a week, 365 days a year. I mean I've just been on holiday for a week and I never stopped thinking about it, the whole time I was away, because there ain't enough time. There's less than 3 years to the Olympics now. There's not enough time to stop thinking about it. Probably a slightly different view to what you've got from some sort of better educated coaches but that's kinda how I feel about it. Passion, it's about passion.

I: I've got a couple of more questions just before we finish. Have you still got time?

P: Yeah, keep going.

I: Have you ever had the opportunity to work alongside a sport psychologist?

P: I have. I mean I work with [names psychologist] who is our guy here, and I... I get a bit of what you would call personal support. Erm... historically, and again, somebody – you know, I'm not in the business of... this conversation's not about thanking people, but I would say that I guess he's your kind of... somebody up the chain of command

from where you are, which is [names psychologist]. Do you know [names psychologist]? He was hugely supportive of me when I was er ... when I was coaching in the 1990s and er... sorry 1980s, well late 80s, 1990s, yeah when I was coaching in the 1990s. And I got a huge amount of, if you like, personal support from him. And to be honest with you, I don't think it's unfair to say I would have... I'm pretty sure the wheels would have come off me personally if I hadn't had that support from [names psychologist]. And that was a period of time when I did feel under pressure as a coach, and I didn't understand that actually it probably wasn't really about me, you know, it was about the athlete and, yeah I felt under pressure as a coach and I felt under pressure in my relationships, you know with my athletes and so on and so forth. And [names psychologist] was immensely valuable and helpful in that respect.

I: I mean, I was gonna say, what do you feel is the role of the psychologist in helping the coach deal with that sort of pressure that... well that they do experience at times.

P: I think it's an immensely personal thing. I've worked with a number of psychologists and I mean, I think just to say "a psychologist" is pretty meaningless. I have a really good personal relationship with [names psychologist], I have a pretty good, but very different relationship with [names another psychologist], and there are one or two other guys that are so memorable that I can't even remember their names, that have come along and gone in and out over the years, with whom I frankly didn't have a relationship, and therefore we no use to me. And I think that, at the end of the day, it's not about sport psychologists, it's about individuals. Is that individual useful to you? Does he provide you with the support and input that you need. And they are really important. Now interestingly enough, I use [names other psychologist] in a very different role from what I used [names psychologist] as. [Names other psychologist] I use as a bit of a conduit for providing dis-identified criticism to the team management. They probably guess where it all comes from.

I: So different roles then...

P: And I think... and I think working with and dealing with sport psychologists, phwoar, that's really difficult, dangerous territory, and it really is about personal relationships, you know. You know, let's just say for a minute, it's not true but let's just say for a minute they've all got the same skills and the same competencies. You know, three out of ten, you'll be able to work with, and seven out of ten you won't. I mean it's just the same as everything else you do in life isn't it? It's about people at the end of the day.

I: Alright, well that's really all of the questions that I've actually got. Is there anything that I haven't asked you that you think is relevant or that you maybe haven't had the chance to talk about?

P: No, I... No I don't think so. I think we need to support our younger coaches well. Ultimately I think because of this issue that you can't learn commitment... I don't believe you can learn commitment... erm... the great coaches will be born and not made. I think you can almost certainly educate people up to the standard of very good coaches

but I think the great ones are probably stand a little bit above to be honest with you. And... and I suppose the other thing that I would say is that erm... we must be careful not to try and push people into a mould. I know lots of people, lots of different personalities, lots of different characters, from the very highly strung to the very laid back, who have all been coaches to gold medallists. And you can't just say, you know, if you follow this programme and you do A to Z, you will be a great coach. Treat them as individuals and gain the strengths from each and every one of them and accept the weaknesses. Because we all have weaknesses and... and you just have to accept those and move on from them, and compensate with them elsewhere. But don't try and produce a sort of coaching sausage machine that turns out 500 identical sausages 'cause it isn't gonna work. And I... yeah... choose the right people I think, to start off with, as your coaches. You know, to some extent our coaches... I suppose they are to a greater or lesser extent... they are initially self-selecting. Some people do it for the right motivations, some people do it for the wrong motivations. And be careful of those kind of alpha performers who want to be coaches. I'm always kind of nervous about them. That's it. That's me.

I: Ok. Well it's been really interesting talking to you

P: I hope that was vaguely interesting!

Appendix G

Workshop Material (Developed for Study 4)

Coaching Under Pressure

Workshops for Sports Coaches

1. Introduction



**Sheffield
Hallam University**

SHARPENS YOUR THINKING

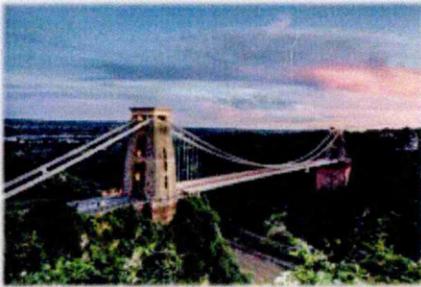


Centre for Sport
and Exercise Science

Introduction to the programme

- Coaches are performers too!
- Developing awareness of stressors and responses to stress.
- Controlling the controllables
- Applied Relaxation Stage 1

What is Stress?



- Stressors:
 - "the demands or challenges facing people" (pressure)
- Stress:
 - "the imbalance between an individual's demands and their coping resources"
- Strain:
 - "the unwanted outcomes, negative responses and effects"

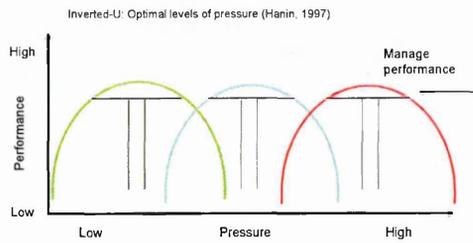


Stress is highly individual



Individual Differences

Relationship between pressure and performance



Coaching under pressure

- Background research
- Organisational and competition stressors
- Outline some of the stress responses
 - including effects on athletes
- Factors important for successful coaching under pressure

Higher-order Themes	Lower-order Themes
Conflict	Management cohesion Interference Forced collaboration
Pressure & Expectation	Outcome pressure Self-imposed pressure
Managing the Competition Environment	Unforeseen events Managing time at competition
Athlete Concerns	Professionalism Commitment Performing to potential
Coaching Responsibilities to Athletes	Meeting athletes' training needs Managing athletes psychologically
Consequences of Sports' Status	Budget concerns Recognition
Competition Preparation	Demands of maintaining elite standards Preparation for major events
Organisational Management	
Sacrificing Personal Time	
Isolated Role	

Higher-order Themes	Lower-order Themes
Psychological responses	Negative cognitions Emotional responses Reduced confidence
Behavioural Responses	
Physical Responses	
Negative Effects on the Coach	Negative affect Decreased motivation Relationships with others Withdrawal
Effects on Athletes	Behaviour towards athletes Effects on Athletes
Positive Effects	Increased focus Productivity Determination

Higher-order Themes	Lower-order Themes
Structuring & Planning	Planning Time management Communication Scheduled time off
Psychological Skills	Self-talk Rationalisation Proactive behaviours Relaxation
Support	Work related support Advice from others Social support
Distraction	Alternative focus/off task activities Exercise
Experience and Learning	Experience as an athlete Experience as a coach Continued professional development
Approach to Coaching	Taking a step back Flexibility Consistency
Maintaining Positive Coach-Athlete Relationships	
Avoidance	
Confrontation	



Developing awareness

- Common Early Warning Signs
 - **Mental** (e.g., inability to concentrate, difficulty in making rational judgements)
 - **Emotional** (e.g., state of anxiety, increased moodiness, angry outbursts)
 - **Physical** (e.g., tense muscles, increased hear rate, cough/colds)
 - **Behavioural** (e.g., increased or decreased sleep, social withdrawal)

Cognitive & Somatic State Anxiety

- **Cognitive anxiety** (thoughts)
 - negative expectations
 - concerns about oneself, the situation at hand, and potential consequences
- **Somatic anxiety** (bodily manifestations)
 - physiological elements of the anxiety experience
 - rapid heart rate
 - clammy hands
 - butterflies in the stomach
 - tense muscles

Developing awareness

- What are the signs that you are experiencing stress?
 - "in-competition" situations?
 - "non-competition" situations?
- What are some of the major causes of stress for you?

See p.8-9 of booklet

Controlling the Controllables

- Things within your control
 - your own thoughts
- Things you can't control
 - athletes' attitudes
 - officials decisions

See p.11-12 of booklet

Controlling the Controllables

- How many of the uncontrollable factors also appeared in your "sources of stress" list?
- How much of your energy and focus is directed towards the uncontrollable factors?
- How much are you in control of all of your "controllables"?
 - One strategy to increase control over controllables?

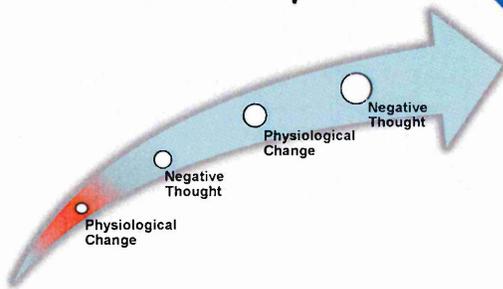
Applied Relaxation

- Be able to recognise early signals of anxiety
- To learn to cope with the anxiety, so that it does not have a negative effect upon performance.

- When a performer encounters "pressure"
 - a) physiological component (e.g., increases in heart rate)
 - b) a behavioural component (e.g., noticing distractions)
 - c) a subjective reaction (e.g., thoughts about yourself)

See Appendix A

Stress Response



AR Stages

- **Stage 1: PMR Phase - Tense and relax**
- **Stage 2: No Instructions/Relax only**
- **Stage 3: Cue Controlled Relaxation**
- **Stage 4: Differential Relaxation**
- **Stage 5: Rapid Relaxation**
- **Stage 6: Application training**

Developing Awareness: Knowing Yourself.

Recognise your own signs of stress	
(1) What does stress feel like?	
(2) How does it show?	
(3) How does it affect my athletes?	

Recognise your own sources of stress

(1) What are the early signs?

(2) What are the sources of stress?

Control the controllable factors

Obviously, having a professional approach when coaching athletes is important

- Helps you focus on specific areas of your performance
- Help you develop a positive psychological attitude in preparing to coach athletes at important events
- Help you to build your confidence as a coach (i.e., feeling totally mentally and physically prepared)

TASK: Exploring the various factors that can influence the way you approach your coaching role. The first part of this process involves controlling the controllables.

Controlling the Controllables.

Identifying the factors you can control helps you to know what you focus on initially.

"Ain't no use worryin' bout things beyond your control, cause if they're beyond your control, ain't no use worryin'....."

"Ain't no use worryin' bout things within your control, cause if you got them under control, ain't no use worryin'....."

Ed Moses (Olympic Athlete)

Task 1 - The controllables

- List the factors that you feel are controllable in your coaching role. This list can include things that do not relate directly to coaching.
- How much do you feel you are currently in control of these factors?
- Rate how well you do on each (out of ten).

Factors within my Control -- process based leading to confidence

Things that are within my control	How well do I do this? /10
e.g., My body language when talking to an athlete	8/10

Task 2 - The uncontrollables

- List the factors that are outside of your control in your coaching role.
- How much do you focus on these 'uncontrollables'?
- Rate how much of your energy/focus is directed towards these factors (out of ten).

Factors outside of my control -- outcome based leading to anxiety

Things I cannot control	How much do I focus on this? /10
e.g., My athlete's mood	8/10



Coaching Under Pressure Workshops for Sports Coaches

2. Building Confidence



**Sheffield
Hallam University**

SHARPENS YOUR THINKING



Centre for Sport
and Exercise Science

Overview: PMR

- **Stage 1: PMR Phase**
 - Tension/relaxation of key muscle groups
 - Enhance self-awareness of the difference between tension and relaxation
 - Use of PMR tape or CD
- **Stage 2 (2 phases):**
 - (1) 2 days: Complete PMR without the CD instructions
 - (2) 5 days: Release only Phase
 - No tension of muscles, just relaxation
 - Orientate focus onto breathing

Overview: PMR

- **Stage 3: Cue Controlled Relaxation**
 - Focus on breathing
 - Use of 'cue' words (e.g., "relax", "loose" etc)
- **Stage 4: Differential Relaxation**
 - Use of training in different settings (e.g., in the kitchen, supermarket, etc)
 - standing up, eyes open

Overview: PMR

- **Stage 5: Rapid Relaxation**
 - Task specific
 - Physical/visual cues
 - 10 -15 times a day
- **Stage 6: Application training**
 - Transfer of rapid relaxation to practice environments (e.g., competition/training environments, in the office etc)

Take Home Task

- Stage 2 of PMR
- (2 phases):
 - (1) 2 days: Complete PMR without the CD instructions
 - (2) 5 days: Release only Phase
 - No tension of muscles, just relaxation
 - Orientate focus onto breathing

What is Confidence?

- An inner belief – a trust in yourself.
- The feeling that you are calm and poised under pressure.
- Feeling in control. Being able to make decisions and perform the way **you** want to under pressure.
- Not putting psychological limits on yourself.



What is Confidence?

"It's having the strength of character to make judgements... If you're going to help your athletes, you need to have confidence in yourself, or else you won't make them believe in you. They have to believe in you or else you might as well just not be there."

– (Medal winning Olympic coach)

What happens when confidence disappears?

- When has your confidence dropped as a coach?
- What caused this?
- What happened?

Sources of Confidence

- Where do you get your confidence from?
 - Highlight specific factors that give you confidence as a coach.

See p.18 of booklet

Confidence Drainers

- What erodes your confidence?
 - Highlight specific factors that take away your confidence as a coach.

See p.19 of booklet

Task 1 - Factors that give me confidence as a coach

Highlight below specific factors that give you sport confidence

My confidence as a coach comes from.....

Task 2 - Factors that erode my confidence as a coach

Highlight below specific factors that erode your sport confidence

My confidence as a coach is eroded by.....

Confidence Reminders

- **Exercise: A Positive Frame of Mind**
- Remind yourself of your achievements in coaching by filling in the confidence reminders sheet (p.21-22 of booklet)
- Try to describe *specific* events or behaviours for the following categories:
 - Strengths
 - Improvements
 - Achievements
 - Preparation
 - Edge
 - Process goals

Building the Bubble of Self-Belief



"Homework"

- Begin stage 2 of AR
 - 2 days no CD
 - 5 days release only
- Fill in Relaxation Training Diary for Stage 2 (App. A, p.10)
- Identify typical negative thoughts you might experience in your coaching roles

Building Confidence: Performance Accomplishments

Your accomplishments are one of the most valuable sources of self-confidence. Reminding yourself of your accomplishments, and goals that you have achieved, can help build and protect your confidence.

Task 3 – ‘A Positive Frame of Mind’

Remind yourself of your achievements as a coach by filling in the 6 items on the following page as follows (try to describe specific events or behaviours).

- **Strengths** – highlight 3 statements describing your strengths, attributes or positive qualities in sports coaching (e.g., *"I have the ability to concentrate during training and competition"*).
- **Improvements** – highlight 3 statements describing your improvements during the last 6 months (e.g., *"my coaching ability is improving because....."*).
- **Achievements** – highlight 3 statements describing your accomplishments / best performances (e.g., *"coaching my team/athlete to a championship/medal/personal best performance"*).
- **Preparation** – highlight 3 statements relating to your preparation that have gone well recently (e.g., *"I have organised quality training sessions. My training was organised and planned"*).
- **Edge** – highlight 3 statements (where possible) relating to an advantage you may possess over your counterparts (e.g. *"I remain calm under pressure better than other coaches"*).
- **My Goals** - highlight 3 challenging but achievable goals (e.g., *"What I aim to do is...be well prepared (control the controllables), remain 100% committed throughout training, and improve the quality of my communication"*).

Keep the ‘A Positive Frame of Mind’ sheet somewhere where you will see it on a regular basis and keep it up to date

MY CONFIDENCE REMINDERS

Strengths

Preparation

Improvements

Edge

Achievements

My Aims



Coaching Under Pressure Workshops for Sports Coaches

3. Emotional Control



**Sheffield
Hallam University**

SHARPENS YOUR THINKING



Centre for Sport
and Exercise Science

Overview of Session

- Feedback on Applied Relaxation Stage 2
- Explanation of AR stage 3

- Identifying emotional vs. logical responding
- Changing negative thinking

Logic vs. Emotion

- Think back to the first session
- Questions
 - what are your early signs of stress?
 - how does your stress show?
 - what does it feel like?

- Think about how you respond to stressful situations.
 - Are your stress responses logical or emotional?

Stress & Emotion

- Stress and Emotion are inextricably linked
- Stress emotions - (e.g., Anger, Guilt, Sadness, Anxiety)
 - associated with harm, threat, challenge
- Positive emotions also associated with stress
 - happiness, relief, hope
- Emotional responses (positive or negative) are often charged and given power by thoughts

Negative Thinking & Self-Talk

"You know, all these doubts come into your mind... I'm not good enough for this. I'm not going to be able to do this because I'm just an ordinary coach. I'm nothing special and I can't do this."

"You start to think 'am I doing the best for my athletes'? You know there were times when I've said to both of them maybe you should go to another coach."

Negative Thinking & Self-Talk

"I lose confidence in myself, get worried... worried I'm doing or saying the right things."

"I think the more stress you come under, the more insecure you get."

"You question everything, you know, am I cut out for coaching?"

Negative Thinking & Self-Talk

"I mentally talk to myself, you know, "don't forget why you're here... you're supposed to enjoy it, so why are you getting your knickers in a twist about [it] you know? Sit back and just enjoy it, that's why you're doing it."

Controlling Negative Thoughts

Countering



1. Identifying negative thoughts
2. Use thought stopping strategies
3. Reframe – replace negative thoughts with positive thoughts



Building Confidence: Positive Self-Talk

Original Negative Thought: "I'm not good enough for this. I'm just an ordinary coach. I'm nothing special and I can't do this."		Belief in Thought (%) 90%
Evidence For: <ul style="list-style-type: none"> • I haven't got the technical knowledge to make good decisions • There are better coaches than me who could do a better job 	Evidence Against: <ul style="list-style-type: none"> • I have been improving my technical knowledge this season • I have seen significant improvements in my athletes' performances this year • I have coached athletes to medal success in the past • The other coaches on the team are supportive and are often in the same situation 	
Belief in Thought (%) 10%	Alternative Positive Thought: "I have good technical knowledge and need to challenge myself in order to improve"	

Task 1 - Identifying Negative Self-Talk

Use the table to record any typical negative thoughts that you might have either during training or during competition

Negative Self-talk	Positive Self-talk
(e.g., "I'm letting my athlete down")	

Task 2 - Reframing Negative Thoughts

Complete the following exercise for each of your negative thoughts:

Original negative thought:

Belief in thought:

Evidence for:

-
-
-
-

Evidence against

-
-
-
-

Belief in original negative thought:

Alternative positive thought:

Remember - the positive thoughts must focus on controllable factors and they must tell you what to do, rather than what not to do. For example:

"The preparation has been done; make sure I am relaxed and that my messages to the athlete/s are clear and concise."

NOT

"Don't mess up my pre-game pep-talk."

Task 3 - Incorporating positive self-talk into training

Write your positive statements into the table on page 28 and practice using them in training & competition (in the situations you find yourself talking negatively) until positive beliefs become the norm.

AR Stage 3

- Cue Controlled Relaxation
- Focus on breathing with self instructions:
"INHALE" (count of 4) and "RELAX" (count of 4)
- You can just say "RELAX" as you exhale if you like
- Choose your own "trigger" word for relaxation

"Homework"

- Begin stage 3 of AR
 - cue controlled relaxation
 - choose a cue word "relax," "loose," etc
- Fill in Relaxation Training Diary for Stage 3 (p.12)
- Complete any unfinished exercised from today's session

Coaching Under Pressure Workshops for Sports Coaches

4. Communication



**Sheffield
Hallam University**

SHARPENS YOUR THINKING



Centre for Sport
and Exercise Science

Overview of Session

- Feedback on Applied Relaxation Stage 3
- Communicating under pressure
- Explanation of AR stage 4
 - Differential Relaxation
 - Relaxation becomes "portable"

What is meant by effective communication?

"knowing what to say and when"
"able to communicate on the athlete's level"

Communication in sport

Communication is:

- **IRREVERSIBLE**
 - can't take it back!
- **INESCAPABLE**
 - it is impossible not to communicate
- **COMPLEX**
 - interplay of individuals involved and their perceptions



"It's absolutely about tailoring the communication between the athlete and the coach into a form which is mutually acceptable to both parties. You have to use a communication style which is appropriate to the athlete that you're working with and the message that you're trying to get over. People say to me, "I've told them four times and they still haven't listened." And I say, "if you've told them four times, and they still haven't got the message, frankly, it's because you're delivering the message wrong."

— Olympic medal winning coach

Communication influences...?

Communication in pressure situations

- "the minute I seem angry, agitated, or actually negative, that would be a big sign. I'm not very good at being negative... I'd say the body language would have shown."
- "too directive in coaching"
- "instructions to athletes might get lost"

In pressure situations...

- How does your body language change?
- How does the way you deliver/receive messages change?
- How are athletes/other coaches/staff affected by you?
- What do other people expect from you?
 - Do they look to you to be calming influence?
 - Do they look to you for motivation?
 - How does the way you communicate help/hinder this?

See p.36-37 of booklet

Regaining control

- Awareness
 - situations
 - other's responses
 - other's preferences
 - own changes
- Credibility
- Relaxation
- Logic vs. Emotion



"Homework"

- Begin stage 4 of AR
 - differential relaxation
 - use relaxation in more realistic situations
- Fill in Relaxation Training Diary for Stage 4 (p.14)

Task - Raising awareness

Think about situations where you have been under pressure and experiencing stress as a coach. How is your style/type/method of communication affected?

Pressure situation	How does the way I deliver my messages change?	How are others affected?	What do others expect from me in this situation?
(e.g., losing an important match at half time - officiating isn't helping!)	(e.g., my tone of voice becomes sharper/can be short with people)	(e.g., my athletes think I'm angry at them and they become concerned about making mistakes)	(e.g., my athletes want me to be a calming influence when decisions aren't going their way)

Pressure situation	How does the way I deliver my messages change?	How are others affected?	What do others expect from me in this situation?



Coaching Under Pressure Workshops for Sports Coaches

5. Preparation for Major Events



**Sheffield
Hallam University**

SHARPENS YOUR THINKING



Centre for Sport
and Exercise Science

Overview of Session

- Feedback on Applied Relaxation Stage 4
- Preparing for the demands of coaching
- Explanation of AR stage 5
 - Rapid relaxation

Higher-order Themes	Lower-order Themes
Structuring & Planning (10)	Planning Time management Communication Scheduled time off
Psychological Skills (10)	Self-talk Rationalisation Proactive behaviours Relaxation
Support (9)	Work related support Advice from others Social support
Distraction (8)	Alternative focus/off task activities Exercise
Experience and Learning (7)	Experience as an athlete Experience as a coach Continued professional development
Approach to Coaching (6)	Taking a step back Flexibility Consistency
Maintaining Positive Coach-Athlete Relationships (6)	
Avoidance (7)	
Confrontation (5)	



Strategic Approach

It's about being clear and making sure that you're setting expectations early so that everyone understands how you're going to operate during the course of the event, what they should expect from you as a coach, and making sure you're clear about that and that you've set your processes so you can deliver that.



Lifestyle Choices



You definitely don't want to add any more pressure to the situation so you make sure everything's sorted out in your domestic life, home life and everything, so there's not going to be any additional drama...

You don't want to try and sell your house in the middle of it, or have a baby or birthday or whatever, so you just have to think about all that.

Previous Experience

We do quite a lot of preparation work in terms of understanding the venues and doing "reccies" on the venues, and understanding the environment and the culture of the locality that we're going to so that you've got a good idea of where you're going.



Team Preparation



It's important to ensure that you're a positive member of the team. It's an important part of part of building the 'British Bubble'.

Athlete Preparation

You probably do more for the individual to make their life as easy as possible than you'd normally do when you're trying to develop independence and self-reliance. At the Games, that kind of goes out the window and it's more like "right, where can we make your life as easy as possible and take the pressure off."



Contingency Planning



It's about being absolutely immaculately prepared and having thought out and thought through every possible scenario that could happen, plus a few that can't happen but maybe still will.

And it's just about preparation, preparation, preparation. There is no stone that is too small to be left unturned.

Consistency is the Key

- Pre-performance routine for coaches?
- Is your preparation consistent?
 - pre match, game day etc.
- Consistent behaviour under pressure?

Developing Routines

- Consistency in psychological and behavioural routines
- Ensures right focus on right things at right times

Time before start	Activity
30 minutes	Review tactics - focus on important processes for today
20 minutes	Oversee warm up Confidence check - Confident body language
10 minutes	2 minute team talk - Hit 3 key points - Positive & process based - Confident body language
8 minutes	Key messages to individual athletes/coaches - Process based focus points
2 minutes	Self Talk: - Emotional - positive self-statements - Psychological - "relax"

Segmenting

- **Step 1:** Define the start and finish of a performance plan that you would feel comfortable with and could use during training or competition situations.
- **Step 2:** For each segment list 2 or 3 things that you want to do, or achieve.
- **Step 3:** Post-competition. Highlight the good and bad aspects of the performance.
 - recreate the good and eliminate the bad
 - gradually improve our consistency

See p.44-46 of booklet

Developing Routines

Routines can help focus or refocus attention. Elite athletes and coaches seem to adopt well-learned and consistent routines every time they prepare for, and perform during competitions.

Consistency in behavioural, and psychological routines might provide some security through familiarity, ensure you control all the variables you can, and also ensure a focus on the right things at the right time.

Performance Segmenting

One way of enhancing some of these psychological and behavioural skills is by performance segmenting. This breaks performance preparation down into a sequence of events and can help maintain psychological control which boosts confidence and concentration, and controls emotions and thought processes.

Time before start	Activity
30 minutes	Review tactics - focus on important processes for today
20 minutes	Oversee warm up Confidence check - Confident body language
10 minutes	2 minute team talk - Hit 3 key points - Positive & process based - Confident body language
8 minutes	Key messages to individual athletes/coaches - Process based focus points
2 minutes	Self Talk: Emotional - positive self-statements Psychological - "relax"

Task 1

Step 1: Define the start and finish of a performance plan that you would feel comfortable with and could use during training or competition situations.

Some coaches will need to organise themselves from the night before the competition, whereas others would prefer to have a ten minute pre-competition routine and little else.

Step 2: For each segment, list 2 or 3 things that you want to do, or achieve.

- The detail should be specific to your needs and can be as simple or as complex as you require.
- Try not to use more than 2 or 3 aspects to each segment, because too many cues become confusing under pressure.
- The aspects of each segment and the segments themselves may change over time as you add or delete things, on the basis of experience.

The idea of competition plans is to make it easier for you to make decisions under pressure. If you already have a preconceived idea of how you should react when a certain situation arises, the decision becomes that much easier to make, hence mistakes are not made.

In your post competition or training evaluation sessions, you should highlight the good and bad aspects of the performance. The aim is to recreate the good and eliminate the bad, hence each performance becomes a **learning situation**, and we gradually **improve our consistency** (it is best to record these good and bad elements in your training diary so they are accessible and a good reminder, when you come to organise your goals for the next training period).

Task 1: Pre-performance plan

Time before start	Activity

Practising the various parts of your plan in simulated competition during training, and implementing them in low profile competitions is essential. Don't forget to use the plan whenever you can. If you can't follow your plan during practice and minor competitions, how can you expect to do so when the pressure is on?

'What ifs'

Sometimes, sport competition does not run smoothly. The lead up to competition is equally subject to disruption and therefore it is essential that your competition preparation is flexible enough to cope with last minute problems and changes.

Indeed, the professional coach is the one who can deal with changes to routine in a calm and confident manner. One of the best ways to prepare for these types of disruption is to use 'what if?' scenarios. In other words, spend time thinking about how you would cope if something significantly disruptive occurred at a critical time.

Task 2: What If?

Have a look at the following examples and then add your own 'what ifs?' and suggest appropriate action.

What if.....	Action
...during the warm-up I can't seem to get a personal problem out of your mind?	Use re-focusing techniques <i>- breathe - talk - do</i>
...my confidence wavers prior to your pre-game talk?	Use your thought stopping/refocusing strategies to get <i>back in the here and now</i> and use positive affirmations to regain confidence

Planning for the "What ifs?"



**IMPORTANCE
UNCERTAINTY
ANXIETY**

What If....?

- What if one of my key players picks up an injury the day before the game?
- What if we can't train at all during the week because of the snow?
- What if we concede a goal/try early on?
- What if our early race strategy isn't working?
- What if one of my athletes is in a state because he doesn't have his lucky socks?

See p.47 of booklet

"Homework"

- Begin stage 5 of AR
 - rapid relaxation
 - 2-3 breaths - associate "relax" with exhalation
 - 10-15 times daily
- Find cue for relaxation - coloured dots?

See p.15 of AR booklet



Coaching Under Pressure

Workshops for Sports Coaches

6. Developing Specific Coping Strategies

Overview of Session

- Feedback on Applied Relaxation Stage 5
- Explanation of AR stage 6
 - Application training
- Revisiting sources of strain
- Developing coach specific coping strategies
- Course evaluation

It's about being absolutely immaculately prepared and having thought out and thought through every possible scenario that could happen, plus a few that can't happen but maybe still will. And it's just about preparation. Preparation, preparation, preparation, preparation.

Specific Coping Strategies

- Applied Relaxation
- Thought Stopping
- Countering Techniques
- Positive Self Statements
- Strategies for communication
- Focus on the processes
- Preparation and What ifs



Coping

		Coping Styles	
		Approach	Avoidance
Coping Strategies	Problem Focused	Analyse reasons why errors were made and correct them.	Apply a mental distraction
	Emotion Focused	Use progressive relaxation to reduce stress	Vent unpleasant emotions, cry

Developing Coping Strategies

- Go back to the sources of stress that we looked at in the first session.
- For each, think about the way you normally respond / compared to how you would like to respond.
- Then think of strategy that will work for you to help you cope with the stressor or your response to the stressor.

See p.53 of booklet

Developing Coping Strategies

Stressor	Response	Ideal Response	Coping Strategy
Losing a "should win" game at half time	Negative thoughts Short with athletes	Calm, focused, athletes can't see my anxiety	Breathe ("Relax") Thought stopping Positive statement

Task 1: Developing Coping Strategies

Stressor	Response	Ideal Response	Coping Strategy

Practice Makes Permanent

- Psychological Skills are the same as any other.
- They take time to perfect and must be practiced in order to reap the benefit
- Based on your coping strategies, set three behavioural process goals for you to put into practice this week.
- Review at the end of the week and adjust accordingly.

Goals for the week!

My Goals w/c	Score out of 10	Evaluation/Comment reviewed on

See p.55 of booklet

"Homework"

- Continue with stage 6 of AR
 - application training
 - practice situations or minor events
- After relaxation (2-3 minutes cue controlled)
 - imagine the really big occasions
 - imagine the stress inducing situations
 - when you feel the anxiety response, use AR breathing techniques
 - don't expect too much too quickly!

My Goals w/c.....	Score /10	Evaluation/Comments reviewed on.....

The Applied Relaxation Technique (AR)



Sheffield
Hallam University

SHARPENS YOUR THINKING



Centre for Sport
and Exercise Science

Applied Relaxation (AR) (Brief overview of 6 the stages)

Stage 1 (week 1)

- Learn what it feels like to be relaxed using Progressive Muscle Relaxation (PMR) (Jacobson, 1938).
- Approximately 20 minutes of taped instruction (practice twice a day).

Stage 2 (week 2)

- Complete the sessions without the taped instructions (instructions committed to memory - 2 days).
- Remove the tension instructions from the procedure
- Perform relaxation only (practice twice a day for 5 days)

Stage 3 (week 3)

- Conditioning the word 'relax'
- Focus on breathing pattern
- Word 'relax' is conditioned to the exhalation (practice twice a day)

Stage 4 (week 4)

- Relaxation becomes 'portable'
- Used in more realistic situations
- Teaches not to tense the muscles that are not involved in the activity, relax the muscles that are involved.

Stage 5 (week 5)

- Rapid relaxation – relax in naturally occurring non-stressful situations.
- Take two to three breaths exhaling slowly
- Associate 'relax' with the exhalation (practice 15-20 times/day)

Stage 6 (week 6: Application training)

- Procedure is used in practice settings (as often as possible when practicing medicine techniques)
- Scan for tension and release it using rapid relaxation

(See Figure 1 below)

THE APPLIED RELAXATION TECHNIQUE (AR)

How it works

There are two main purposes of AR. The first is for the performer to be able to recognise early signals of anxiety, and the second is to learn to cope with the anxiety so that it does not have a negative effect upon performance. It is important that you understand how the AR technique will achieve these two purposes.

When a performer encounters a “pressure” situation there are three different components to the likely stress reaction: a) a physiological component - your body’s reaction (e.g., increases in heart rate, blood pressure, sweating, rapid shallow breathing or tightening muscles), b) a behavioural component - your response (e.g., losing concentration, noticing distractions, or hesitating too long), and c) a subjective reaction - your own thoughts about yourself in the situation (e.g., “I’m not going to know what to say,” “I don’t know how to change what’s happening,” or “I’m going to blow it.” The strength of these components varies from person to person, but previous research has shown that most people experience some physiological change, followed by a negative thought or behaviour and this increases the physiological reaction and so on in a vicious circle.

One good way of breaking this vicious circle is to focus on the physiological reactions and learn not to react so strongly. The method we are going to use to achieve this is called Applied Relaxation. The aim of this technique is to learn the skill of relaxation, which can be applied very rapidly and in practically any situation. This skill can be compared to any other skills (e.g. learning to swim, ride a bike, or drive a car) in that it takes time to practice and learn, but once you have mastered it you can use it anywhere. You are not restricted to the calm and non-stressed situation of the office or your home. The goal is to be able to relax in 20-30 seconds and to use this skill to counter, and eventually get rid of, the physiological reactions you can experience in pressure situations. To achieve this we are going through a gradual process (illustrated in Figure 1) starting with tensing and relaxing different muscle groups. This takes about 20 minutes and you are to practice it twice per day. Then we start to reduce it by taking the tension part away, just relaxing, which takes 5-7 minutes. The next

step teaches you to connect the self-instruction “relax” to the bodily state of relaxation. At the end of this phase it usually takes 2-3 minutes to get relaxed. Then we teach you to do different things while still being relaxed in the rest of your body, and also relaxing while standing and walking. Relaxation time is now down to 60-90 seconds. After that, it is time for rapid relaxation, which you may practice many times a day in non-stressful situations, with the aim of getting relaxed in 20-30 seconds. Finally, you reach the stage of applying the skill in anxiety provoking situations. Applied relaxation is thus a skill that most people can acquire with the right instruction and a lot of practice. It is a portable skill that can be used in almost any situation and is not restricted to anxiety inducing coaching situations, but can be used in other situations (e.g. when having problems falling asleep).

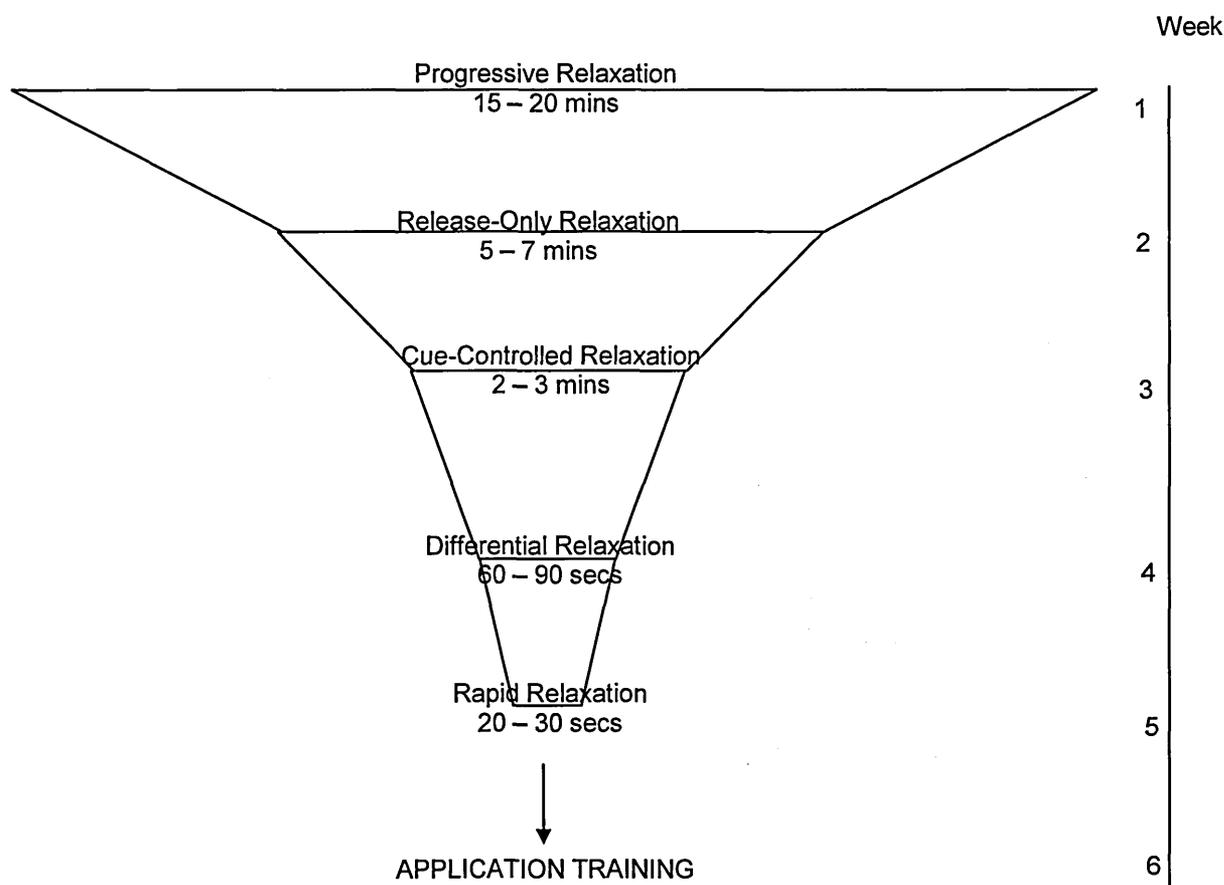


Figure 1. The different components of applied relaxation with approximate time to get relaxed at various stages

THE APPLIED RELAXATION TECHNIQUE

Self-Observation of Early Anxiety Signals

Whenever you start feeling anxious, as soon as you are aware of it, whether it be during training, or when you think of preparing for your next competition, make a note of the things you feel (i.e. the anxiety signals). If you cannot write them down at that moment, try to make a mental note and write them down as soon as you are able.

Date	Situation	Reaction (What did you feel?)	Intensity (0-10)

THE APPLIED RELAXATION TECHNIQUE

Stage 1: Progressive Relaxation

To help you learn what it feels like to relax, we start with a technique called PR which works by contrasting tension of specific muscle groups with relaxation of them.

Sit in a comfortable chair and go through the tension-relaxation sequence below (on CD), tensing for about 5 seconds, and then relaxing for 10-15 seconds for each muscle group. Close your eyes before you start.

- ◆ Hands to fingertips
- ◆ Arms
- ◆ Face – forehead, eyes, jaw and mouth
- ◆ Neck
- ◆ Shoulders
- ◆ Back Chest
- ◆ Stomach
- ◆ Hips
- ◆ Legs
- ◆ Feet

Rate the degree of relaxation achieved on each occasion on the 0-10 scale. Try to do this relaxation twice a day, once in the morning, once in the evening. It doesn't take long and the more often you can practice, the sooner you will progress to the shorter versions and be able to apply the technique.

Stage 2: Release Only Relaxation

By removing the tension instructions from the relaxation procedure, now that you know what relaxation feels like, we can reduce the length of an effective session from 20 minutes down to 5 to 7 minutes.

From now on, the sequence of relaxation of muscle groups will move down the body starting with the head.

If you do not feel tension in a muscle group when you come to relax it, then first tense that group briefly and then relax.

You might like to time the session on the first occasion and then every now and again, to check its length. Continue to fill in your form to register every session you do, and continue with the twice a day target.

Once you are ready, close your eyes. Now breathe with calm, regular breaths and feel how you relax more and more with each breath.....Just let go.

Relax your

- forehead
- eyebrows
- eyes
- jaw
- lips
- tongue – entire face

Relax your

- neck
- shoulders
- arms
- hands to your fingertips

Breathe calmly and regularly with your stomach all the time. Let the relaxation spread to your

- stomach
- waist
- back

Relax the lower part of your body now, your

- thighs
- knees
- calves
- feet – to the tips of your toes

Breathe calmly and regularly and feel how you relax more and more with each breath.

Take a deep breath and hold it for a couple of seconds. Now let the air out slowly – slowly.

Notice how you relax more and more. Repeat deep breath – hold – release slowly – and relax for a little while.

Once you feel ready, flex your arms and legs a couple of times, open your eyes and notice how calm, refreshed and alert you feel.

Stage 3: Cue-Controlled Relaxation

As we discussed during the session, cue controlled relaxation can produce a further reduction in the time taken to become deeply relaxed and it helps you to have a “trigger” word for relaxation.

Practice again twice a day, using this method of focussing on breathing with self instructions of “INHALE” and “RELAX”. You can just say “RELAX” as you exhale if you like.

Note how long each session takes. You should get deeply relaxed in about 3 minutes as you get used to this approach.

Stage 4: Differential Relaxation

In order for AR to be an efficient coping skill it must be "portable" (i.e. you should be able to use it in practically any situation). You must not be constricted to a comfortable armchair, or your own home. The primary purpose of differential relaxation is teaching you to relax in other situations, besides the armchair. The secondary purpose is to teach you to maintain relaxation in the muscles that are not being used for the particular bodily activity that you are engaged in.

The session will start with you relaxing by using cue-controlled relaxation, i.e. relaxing from head to foot, scanning the body for any tensions, while sitting in an armchair. Then you will perform certain movements with various parts of the body, while at the same time concentrating on being relaxed in the rest of the body, frequently scanning it for signs of tension. Examples of movements we can use are opening the eyes and looking around in the room but only moving the eyes; looking around and also moving the head; lifting one hand, one arm, and then the other; lifting one foot, one leg and then the other. While receiving these instructions you are encouraged to relax the parts of the body that are not engaged in the movement. This is particularly important when it comes to the arms and the legs.

After this exercise ask yourself if you experienced any problematic areas, and make a note. Next the same practice will be done while sitting on an ordinary chair, and then sitting by a desk writing something on a piece of paper, or talking on the telephone. The above is usually enough for one session. Next, begin with practicing while sitting on an ordinary chair, then proceed to practising relaxing whilst standing, and while walking.

For the next week, practice these basic movements following relaxing using cue-controlled relaxation. The process you should follow is essentially:

Relax - Scan - Relax - Move - Relax - Scan - Relax - Move - etc.

Stage 5: Rapid Relaxation

Rapid relaxation, as the name suggests, aims to reduce the time to get relaxed still further to 20 – 30 seconds. It is also intended to be used in natural situations, but not stressful ones as yet. This involves a different style of practice. You need to practice for short periods, frequently (i.e. approximately 15 to 20 times a day) in natural situations. One way to achieve this is to use an activity you do frequently and in a range of situations as a cue for relaxation.

Unless you have a better idea, or you don't wear one, you can use your watch as the cue. To really emphasize the point, put a small square of coloured tape on the corner of your watch. Whenever you look at your watch, you will see the tape and this will remind you to do the relaxation exercise. The practice is relatively unobtrusive, so you could do it in a shop, on the street, in a gym, at work, almost anywhere. However, do not do the exercise if you are late for an appointment or stressed in other ways.

The specific procedure for you to follow now is:

1. Take 2 or 3 deep breaths and exhale slowly after each;
2. Think to yourself "relax" before each slow exhalation;
3. Scan your body for tension and try to relax as much as possible in the situation.

Don't expect to reach deep levels of relaxation at first when you do this in very busy situations, but persevere as this is exactly the kind practice you need to be able to relax in the heat of competition. Relaxation will deepen as you repeat the practice on other occasions.

After every couple of days, change the colour of the sticky tape on your watch so it remains a fresh signal or cue for relaxation.

Stage 6: Application Training

You need to keep practicing AR in situations that you usually find stressful. Try to set up situations in your practice sessions, use AR in minor events, and in or other situations that you find anxiety-provoking. Imagine the really big occasions when stress is at its greatest and, as you feel the anxiety reactions, apply AR to dissipate the feelings.

Relaxation is like any other skill. It takes time to be able to use it effectively in new situations. Don't expect complete effectiveness to start with. Consider success to be stopping the further increase of anxiety. Continue applying AR to the situation and a larger effect will soon be noticed. Eventually you will be able to dissipate the anxiety reaction completely.

Once you feel you can control the anxiety reactions really well in these situations it will be time to use the technique in the real highly-pressurised situation. Be confident, but don't expect too much at first. Remember that stopping the increase is success and this will help your performance. Soon you will dissipate the anxiety completely.

The application of rapid relaxation at the stressful moment is only one use of the AR technique. You can still use cue-controlled relaxation for 2-3 minute sessions prior to an event if you feel particularly anxious. You might even use release only relaxation at times when you feel your general stress level is high. Practice of differential relaxation once or twice a week will help you to develop still further the ability to be generally relaxed, even when you are involved in the energetic movements of some muscles.

Appendix J

Ethics Approval for Study Four

Ethics application forms

Risk assessment forms

Participant information sheet (see Appendix K)

Informed consent form



Sheffield Hallam University

Faculty of Health and Wellbeing

Research Ethics Committee

Sport & Exercise Research Ethics Review Group

APPLICATION FOR ETHICS APPROVAL OF RESEARCH

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Sport and Exercise Research Ethics Review Group before approving a project. **ALL** of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

1) Date of application	07 July, 2010
-------------------------------	---------------

2) Anticipated date of completion of project	End October 2010
---	------------------

3) Title of research	Evaluation of a "Coaching Under Pressure" Mental Skills Training Package for Sports Coaches
-----------------------------	---

4) Subject area	Sport & Performance Psychology
------------------------	--------------------------------

5) Principal Investigator	
Name	Peter Olusoga
Email address @ SHU	p.ulusoga@shu.ac.uk
Telephone/Mobile number	07921465926 (mob) 0114 225 5752 (office)
Student number (if applicable)	15023313

6) State if this study is:	<input type="checkbox"/> Research
(If the project is undergraduate or	<input type="checkbox"/> Undergraduate
postgraduate please state module name and	<input checked="" type="checkbox"/> Postgraduate
number)	Module name:
	Module number:

7) Director of Studies/Supervisor/ Tutor name	DoS: Professor Ian Maynard Supervisors: Dr. Joanne Butt & Dr. Kate Hays
--	---

8) Intended duration and timing of project?	Participant recruitment	October, 2010
	Initial data collection (questionnaire data)	Dec - 2010 Mar - 2011
	Intervention period (6 x Workshops)	Nov - Jan, 2010
	Second data collection (questionnaire data)	Jan, 2010
	Third data collection (questionnaire data)	up to Mar, 2011
	Analysis of results	Mar - Apr, 2011
	Write up	Mar - Apr, 2011

9) Location of project If external to SHU, provide evidence in support (see section 17)	Sheffield Hallam University
---	-----------------------------

10) State if this study is:	<input checked="" type="checkbox"/> New <input type="checkbox"/> Collaborative (please include appropriate agreements in section 17) <input type="checkbox"/> Replication of :
------------------------------------	--

11) Purpose and benefit of the research

Statement of the research problem with any necessary background information (no more than 1 side of A4)

Sports coaching, is an inherently stressful occupation (Taylor, 1992, Gould, Guinan, Greenleaf, & Chung, 2002). Previous research (c.f. Frey, 2007; Olusoga et al., 2009; Thelwell et al., 2008) has demonstrated that sports coaches at elite and collegiate levels experience a multitude of stressors, stemming from both organisational and competitive sources. Olusoga et al. (2010) explored coaches' responses to stress and the longer-term effects that stress can have on coaches. This study suggested that stress can have negative effects on coaches' professional and personal lives (including symptoms of burnout), and that coaches' athletes could be negatively affected by coaches' responses to stress. Importantly, this study also suggested that coaches' use of psychological skills and coping strategies to manage the stress they encounter is limited. For example, results indicated a widespread use of avoidance as a coping strategy. However, emotion-focused strategies and avoidance appear to predict negative affect and have been associated with greater cognitive anxiety (Ntoumanis & Biddle, 2000).

Although coaches have been acknowledged as performers in their own right (Frey, 2007; Gould et al., 2002), athletes remain the priority for governing bodies as far as mental skills training is concerned. Indeed, numerous research studies have attested to the efficacy of mental skills training (MST) for improving athletic performance, pre-performance stress related symptoms such as anxiety, and Mental Toughness (e.g., Gucciardi, Gordon, & Dimmock, 2009a; 2009b; Mellalieu, Hanton, & Thomas, 2009; Thelwell & Greenlees, 2001). Taylor (1992) recognised that stress management might be important for coaches and outlined a five step stress management programme (perceptions of coaching, recognition of stressors, responses, developing coping skills, and building support systems) recommended. However, to our knowledge, no research has evaluated the effectiveness of a systematic stress management/MST package for coaches.

The purpose of the present study is to assess the effectiveness of an MST package aimed at sports coaches. Previous PhD research with Olympic medal winning coaches identified the factors associated with being able to coach successfully and effectively in a highly pressurised environment, and the intervention package to be delivered in the present study has been tailored based on the findings of this research.

The results of the study might have important implications for sport psychology consultants working with sport organisations and individual coaches. It is possible that the intervention package could be effective in improving the range of adaptive coping resources that coaches have, and their interpretation of stress responses. The potential implications of this are far reaching, and could have an impact on the satisfaction and performance of the coaches' athletes, as well as on the coaches overall experiences of potentially stressful international competition.

12) Participants	
12.1 Number	8-12 coaches(intervention & questionnaire)
12.2 Rationale for this number (eg calculations of sample size, practical considerations)	The number of participants is chosen due to: a) the practicality of coordinating a group of sufficiently experienced coaches to attend a series of workshops delivered over a 6 week period b) the practicality of conducting a series of interactive sport psychology workshops for coaches.
12.3 Criteria for inclusion and exclusion (eg age and sex)	To ensure that coaches taking part in the study can derive benefit from the programme, they must hold a level 2 coaching certificate (minimum) and have coached an athlete or team in at least national league level competition in their chosen sport.
12.4 Procedures for recruitment (eg location and methods)	Coaches will be approached initially the university director of sport, and subsequently, through their respective clubs. Coaches will be sent further information regarding the content and purpose of the workshops, and a registration form to confirm their attendance. This registration form also informs coaches that they will be asked to contribute data to this research study.
12.5 Does the study have *minors or ‡vulnerable adults as participants?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
12.6 Is CRB Disclosure required for the Principal Investigator? (to be determined by Risk Assessment)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, is standard <input type="checkbox"/> or enhanced <input type="checkbox"/> disclosure required?
12.7 If you ticked 'yes' in 12.5 and 'no' in 12.6 please explain why:	

13) Details of the research design

13.1 Provide details of intended methodological procedures and data collection.

(For MSc students conducting a scientific support project please provide the following information: a. needs analysis; b. potential outcome; c proposed interventions)

The aim of the study is to assess the effectiveness of an intervention aimed at facilitating coaches' ability to coach successfully under pressure. Coaches will be asked to complete a package of questionnaires regarding their stress responses, mental skills use, and coping strategies pre-and post-intervention; once prior to the commencement of the intervention (series of sport psychology workshops for coaches) (PRE), and once after the end of the series of workshops(POST).

Three questionnaires will be used: The Competitive State Anxiety Inventory (CSAI-2md), the Mental Skills Questionnaire (MSQ), and the Modified COPE inventory (MCOPE). Following the workshop series, coaches will be asked to complete an evaluation of the intervention. Coaches will then be asked to select a competition or even that holds significance for them occurring between 1 and 2 months after the final workshop. At this point, coaches will be asked to complete and return a second set of questionnaires.

The intervention phase consists of a series of 6 Workshops aimed at facilitating the coaches' ability to "Coach Under Pressure." The topics of the workshops are based on previous research (Olusoga et al., 2009; in press; previous PhD research) and are as follows*:

1. Introduction
2. Building Confidence
3. Emotional Control
4. Communication
5. Preparation for Major Events
6. Developing Coach-Specific Coping Strategies

Throughout the workshops, coaches will also undertake relaxation training (Progressive Muscular Relaxation - Jacobson, 1930). As part of the intervention, coaches will be required to complete a diary of their relaxation training. However, this does not form part of the assessment and this form of monitoring and evaluation will be used to ensure adherence to the training programme.

*specific content can be provided if required

13.2 Are these "minor" procedures as defined in Appendix 1 of the ethics guidelines?

Yes No

13.3 If you answered 'no' in section 13.2, list the procedures that are not minor

N/A

13.4 Provide details of the quantitative and qualitative analysis to be used

For the questionnaire data, the Independent Variable (IV) will be the time of measurement (PRE, POST). The outcome measures (OMs) will be the subscales of the CSAI-2, MCOPE and the MSQ. Because of the anticipated small sample size, non-parametric statistical tests will be used identify differences between PRE and POST subscale scores on each of the relevant questionnaires. Specifically, Wilcoxon Signed Rank tests will be carried out to identify meaningful differences.

Data will be analysed using SPSS statistical package (SPSS UK Ltd, Woking UK).

14) Substances to be administered (refer to Appendix V of the ethics procedures)

14.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements.

Please tick box if this statement applies and go to section 15) [X]

14.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.

15) Degree of discomfort that participants might experience

Consider the degree of physical and psychological discomfort that will be experienced by the participants. State the details which must be included in the participant information sheet to ensure that the participants are fully informed about any discomfort that they may experience.

Participants (coaches) will be informed that they might experience some mild psychological discomfort in recalling stressful experiences and situations.

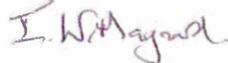
16) Outcomes of Risk Assessment

Provide details of the risk and explain how the control measures will be implemented to manage the risk.

Participants (coaches) might experience mild psychological discomfort in recalling stressful experiences. However, they are reminded that:

- during the completion of questionnaires, they do not have to answer any question that they do not wish to, and that all data will be treated confidentially. Questionnaires will remain anonymous and individual data will not be shared.
- during the workshops, they are free to contribute as much or as little as they wish to group discussions, confidentiality is assured, and they are free to withdraw from the study at any time.

17) Attachments	Tick box
17.1 Risk assessment (including CRB risk assessment)	YES
17.2 COSHH assessment	NO
17.3 Participant information sheet (this should be addressed directly to the participant (ie you will etc) and in a language they will understand)	YES
17.4 Informed consent form	YES
17.5 Pre-screening questionnaire	NO
17.6 Collaboration evidence/support correspondence from the organisation consenting to the research (this must be on letterhead paper and signed) See sections 9 & 10.	NO
17.7 CRB Disclosure certificate <u>or</u> where not available CRB application form	NO
17.8 Clinical Trails form (FIN 12)	NO

<p>18. Signature Principal Investigator</p>	<p>Once this application is approved, I will undertake the research study as approved. If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor.</p> <p>If the supervisor advises that there should be a resubmission to the Sport and Exercise Research Ethics Review Group, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.</p> <p>Principal Investigator signature  Date 07/07/2009</p> <p>Name : Peter Olusoga</p>
<p>19. Approval Project Supervisor to sign either box A or box B as applicable</p> <p>(refer to Appendix I and the flowchart in appendix VI of the ethics guidelines)</p>	<p>Box A:</p> <p>I confirm that the research proposed is based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore does not need to be submitted to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.</p> <p>Project Supervisor signature  Date 07/07/2009</p> <p>Name : Prof. Ian Maynard</p>
	<p>Box B:</p> <p>I confirm that the research proposed is <u>not</u> based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore <u>must</u> be submitted to the HWB Sport and Exercise Research Ethics Review Group for approval.</p> <p>I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>Project Supervisor signature _____ Date _____</p> <p>Name _____</p>
<p>20. Signature Technician</p>	<p>I confirm that I have seen the full and approved application for ethics approval and technical support will be provided.</p> <p>Technician signature _____ Date _____</p> <p>Name _____</p>



**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Operating Group**

Risk Assessment Pro Forma

Procedure	Coaches will complete a battery of questionnaires and attend a series of 6 psychology workshops.
------------------	--

Assessment Number	01
--------------------------	----

Date Assessed	07/07/2009
----------------------	------------

Assessed By	Peter Olusoga
--------------------	---------------

Signed	Position
	Principal Investigator

Hazards	Risks and Specific Control Measures
Discomfort in recalling stressful experiences when completing questionnaires.	<p><u>RISK</u> (Likelihood X Consequence) 2 X 1 = 2</p> <p><u>CONTROL MEASURES</u> Participants informed and reminded that there are no right or wrong answers and confidentiality will be maintained. Furthermore, participants will be reminded that they do not have to answer a specific question if they choose not to and they withdraw from the study at any times.</p>

Discomfort in recalling stressful experiences during workshops.	<p><u>RISK</u> (Likelihood X Consequence) 2 X 1 = 2</p> <p><u>CONTROL MEASURES</u> Participants informed and reminded that they can contribute as much or as little as they wish during group discussions. However, participants are also reminded that all discussion will remain confidential. The participant is reminded in the PIS that they are free to withdraw from the study at any times.</p>
Adverse effects from intervention (relaxation training)	<p><u>RISK</u> (Likelihood X Consequence) 1 X 1 = 1</p> <p><u>CONTROL MEASURES</u> Participants informed and reminded that they can contribute as much or as little as they wish during group discussions. However, participants are also reminded that all discussion will remain confidential. The participant is reminded in the PIS that they are free to withdraw from the study at any times.</p>

Risk Evaluation (Overall)
<p>The risk assessment has highlighted distress occurring from recall as a potential hazard. However, given the nature of the study, the overall risk is extremely low. There is a small likelihood of adverse effects occurring as a result of the intervention (sport psychology workshops). Again, given the expertise of the principal investigator (see below) and the fact that the intervention is will be supervised by highly experienced and qualified sport psychologists (see below), the risk, again, is extremely low.</p>
General Control Measures
<p>Is a pre-screen medical questionnaire required? Yes [] No [X]</p> <p>The workshops will be delivered by a BPS Chartered Sport Psychologist who has also completed 3 years of supervised experience with the British Association for Sport and Exercise Science, and is a BASES Accredited Sport and Exercise Scientist.</p> <p>Workshops will be supervised by at least one member of the principal investigator's supervisory team. Both Dr. Joanne Butt and Dr Kate Hays are also BASES Accredited Sport Psychologists and have attained BPS Chartered status.</p> <p>Participants are reminded that all discussions and questionnaire data will remain confidential. No individual questionnaire data will be shared. Participants will also be reminded that they are free to withdraw from the study at any time and without prejudice.</p>

Emergency Procedures

N/A

Monitoring Procedures

As above, the principal investigator will use his expertise in applied sport psychology to monitor participants throughout the workshops for signs of any psychological discomfort. The principal investigator will also be supervised by his PhD supervisory team throughout the process and will debrief and reflect after each session.
--

Review Period	
----------------------	--

Reviewed By	Date
--------------------	-------------

<i>I. W. Maynard</i>	07/07/2009
----------------------	------------



Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Review Group

INFORMED CONSENT FORM

TITLE OF PROJECT:

Evaluation of a "Coaching Under Pressure" Mental Skills Training Package for Sports Coaches

The participant should complete the whole of this sheet himself/herself

Have you read the Participant Information Sheet?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
To whom have you spoken Do you understand that you are free to withdraw from the study:	
<ul style="list-style-type: none"> • at any time • without having to give a reason for withdrawing • and without affecting your future medical care 	YES/NO
Have you had sufficient time to consider the nature of this project?	YES/NO
Do you agree to take part in this study?	YES/NO
Signed Date	
(NAME IN BLOCK LETTERS).....	
Signature of Parent / Guardian in the case of a minor	

Appendix K

Pre- Workshop Information Pack for Coaches.

Preliminary Information for Coaching Workshops

Workshop Registration/Demographic Questionnaire

Participant Information Sheet

Coaching Under Pressure

Workshops for Sports Coaches



Sheffield
Hallam University

SHARPENS YOUR THINKING



Centre for Sport
and Exercise Science

Coaching Under Pressure

Purpose:

This series of six workshops is designed to help sports coaches develop strategies for coaching effectively in high pressure environments. The workshops have been developed on the back of PhD research into stress and coping in World Class sports coaching and will be underpinned by a programme of Applied Relaxation.

Rationale:

Research carried out at Sheffield Hallam University has demonstrated that as well as stress associated with competition environments, there are several demands on coaches that stem from the organisations they operate in. The ability to effectively cope with various demands is considered essential for successful athletic performance, yet it is often forgotten that coaches have to "perform" too. Importantly, coaches at the elite level have reported that stress can have a negative impact on their personal and professional lives, and that the ways in which they respond to stress can negatively affect their athletes. As part of this research, coaches from one of Great Britain's most successful Olympic teams were interviewed, and the factors that influenced their ability to coach successfully in a highly pressurised, world class sports environment, were identified.

Programme content:

Based upon the findings of the research outlined above, the programme will consist of six workshops, plus short take-home tasks for coaches, and each week will explore a different aspect of coaching in a high pressure environment. Coaches will have the opportunity to interact with experienced coaches from other sports, explore their own sources of stress, and develop individualised coping strategies that will facilitate their ability to effectively coach under pressure.

Week 1	Thursday 4 th November	Introduction
Week 2	Thursday 11 th November	Confidence Building for Coaches
Week 3	Thursday 18 th November	Emotional Control Strategies
Week 4	Thursday 25 th November	Communication
Week 5	Thursday TBC	Preparation for Major Events
Week 6	Thursday TBC	Coach Specific Coping Strategies

Week 1 - Introduction

A brief overview of the research that underpins the programme will be presented. Coaches will explore why psychological skills and attributes might be important for them (as opposed to for their athletes), and will be given the opportunity to reflect on their own psychological strengths and areas for improvement. To develop self-awareness, coaches will identify and discuss their "sources of stress" and will explore the ways that they currently respond to and cope with the various demands placed on them.

Week 2 - Confidence Building

Research has suggested that coaches having confidence in their own ability and decision making skills under pressure is vital for successful coaching performance. Further, coaches at the elite level have reported losing confidence in stressful situations. This session gives coaches the opportunity to explore why confidence is important for them, identify their sources of confidence and the factors that can drain it, and develop strategies to maintain and build confidence.

Week 3 - Emotional Control

The ability to remain in control of one's emotions is another psychological attribute that coaches have identified as being particularly important for coaching under pressure. Building on previous sessions, coaches will get to reflect, in greater detail, on their responses to stress, the differences between the logical and the emotional responses they might have in stressful situations,

and develop individual strategies that might help them control negative thinking and maladaptive emotional responses.

Week 4 - Communication

Again, based on research, effective communication has been identified as imperative for coaching under pressure. However, definitions of communication can be varied. As such, in this session, coaches will explore and discuss what communication means to them, how their methods and styles of communication might change under pressure and the effects that this might have upon the messages they need to deliver as coaches.

Week 5 - Preparation for Major Events

Effective preparation and planning is recognised as a significant factor in successful coaching at the highest levels, and has also been identified as a fundamental strategy for coping with pressure. While preparing athletes for major events, coaches can neglect to prepare for their own "performance" and the demands they might face. The aim of this session is for coaches to develop a greater understanding of their own needs (physical, psychological, emotional) both in and out of competition.

Week 6 - Coach Specific Coaching Strategies

Pulling the previous sessions together, the aim of this session is for coaches to discuss and develop strategies they can use to cope effectively with the demands that are specific to their coaching roles. Coaches will revisit the sources of stress and coping strategies they identified in week 1 and will re-evaluate the effectiveness of their coping methods.

Relaxation

Throughout the 6 sessions, coaches will be taken through the stages of a progressive muscular relaxation technique, with the aim of supporting their ability to cope successfully with the demands of elite coaching.

Coaching Under Pressure Workshops

Registration Form

Workshop Dates:

Week 1	Thursday Nov 4	9.30-11.00am	Introduction
Week 2	Thursday Nov 11	9.30-11.00am	Confidence Building for Coaches
Week 3	Thursday Nov 18	9.30-11.00am	Emotional Control Strategies
Week 4	Thursday Nov 25	9.30-11.00am	Communication
Week 5	TBC	TBC	Preparation for Major Events
Week 6	TBC	TBC	Coach Specific Coping Strategies

Room TBC

Coach Details

Name:	Date of Birth:
Current Address: (NB: This information will only be used so that we can send out the pre-and post-workshop questionnaire packs)	
Phone:	E-mail:

Coaching Experience

Total years coaching experience:		
Sports/Teams Coached	Level of Qualification	Highest Level of Competition (e.g., senior national league)

Sheffield Hallam Research Study

Because the workshops form part of an ongoing research project, you will be asked to complete a short pack of questionnaires before and after the workshop series. The purpose of this is to evaluate the content of the workshops, rather than to evaluate you as coaches. For further details of the study, please refer to the Participant Information Sheet on the next page.





**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Review Group**

Participant Information Sheet

Project Title	Evaluation of a "Coaching Under Pressure" Mental Skills Training Package for Sports Coaches
Supervisor/Director of Studies	Dr Joanne Butt, Dr Kate Hays / Professor Ian Maynard
Principal Investigator	Peter Olusoga
Principal Investigator telephone/mobile number	0114 225 5757 / 07921465926

Purpose of Study and Brief Description of Procedures
(Not a legal explanation but a simple statement)

Thank you for taking part in this research study.

Coaching has been identified as a stressful occupation. Elite coaches have identified numerous competitive and organisational stressors and have also discussed the effects that stress can have on them and their athletes. However, coaching research has also identified various factors that enable coaches to work successfully and effectively in highly pressurised situations.

The purpose of the study is to assess the effectiveness of a 6 week "Coaching Under Pressure" workshop programme for sports coaches (see CUP Workshop information document for details). This programme takes the form of a series of workshops covering various aspects of coaching in a high pressure environment. During the workshops, which will last approximately 90 minutes, you will get the opportunity to reflect on and discuss aspects of your coaching with coaches from other sports, and you will also be taken through applied relaxation training, which will require some practice outside of the workshop time.

For the study, you will be asked to complete a questionnaire pack before the start of the first workshop. As part of the study, you will also be asked to complete the same questionnaire pack after the end of the workshop series. There are 3 questionnaires in total: The Competitive State Anxiety Inventory-2 (CSAI-2md), the Mental Skills Questionnaire (MSQ) and the modified COPE inventory (MCOPE).

Specific details for filling in each questionnaire will be provided in the questionnaire pack, but each is answered by indicating your level of agreement with a series of statements. The whole process should take no longer than 25 minutes. There is a

small chance that you might experience some mild psychological discomfort when recalling stressful experiences. However, please note that there are no right or wrong answers to any of the questions and you do not have to answer a specific question if you do not want to. Rest assured that, as we are only looking at group data, the answers you give will not be shared with anybody else.

There is also a small chance that you might experience some discomfort when discussing stressful experiences in group workshops. Again, please remember that you are free to contribute as much or as little to group discussions as you feel comfortable with, but know that all discussions will remain confidential.

After completing the workshop series, you will also be asked to complete a short survey in addition to the questionnaires. Again, specific instructions will be provided but this will involve reflecting on the workshops and indicating your agreement with a number of statements.

Please remember, the purpose of the study is to evaluate the content of the workshops rather than to evaluate you as a coach. All data collected will only be used to assess the effectiveness and content of the workshops sessions. If you have any questions about the study, please do not hesitate to contact Peter Olusoga on either of the contact numbers given above, or via email (p.ulusoga@shu.ac.uk).

Prior to the workshops, you will be asked to sign an informed consent form to confirm that you agree to take part in the study. However, please note that you have the right to withdraw from the study at any time, without prejudice.

If necessary continue overleaf

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the Faculty of Health and Wellbeing Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.

Appendix L

Questionnaire Materials for Study Four

Mental Skills Questionnaire

Competitive State Anxiety Inventory -2nd

MCOPE

Social validation questionnaire

Pre-workshop questionnaire pack

Initials: _____

DOB (dd/mm): _____ / _____

Today's Date: _____

Dear Coach,

Thank you for participating in this series of workshops. This programme has been designed to help sports coaches develop strategies for coaching effectively in a high pressure environment.

Questionnaire data

As the workshops are also part of ongoing research at Sheffield Hallam, you are asked to fill in a short series of questionnaires before the workshops begin. You will also be asked to complete the same questionnaires at the end of the workshop series and once again at a later date.

There are 3 questionnaires in total, concerned with mental skills you currently use in your coaching role, the ways in which you respond to stressful situations, and the coping strategies that you employ. The questionnaires begin on the next page and specific instructions are given before each.

Please fill in the questionnaires as honestly as you can and remember that there are no right or wrong answers. Please rest assured the answers you give will not be shared with anybody else, as we are only looking at group responses. The data will be used to assess the content and effectiveness of the workshops, not to assess you as a coach.

Thank you once again for your participation



Pete Olusoga

IMPORTANT INSTRUCTIONS.

Mental Skills Questionnaire [5 minutes]

The questionnaire overleaf is concerned with the various types of mental skills that you may or may not currently use in your role as a coach. The use of mental skills varies greatly amongst coaches, so please complete the inventory as honestly as you can. Your answers will not be shared with anyone.

The inventory consists of 28 statements with which you are asked to rate your agreement on a scale ranging from 1 (disagree) to 6 (agree). Please read each statement carefully and circle the appropriate number before moving onto the next statement.

Strongly

Strongly

AGREE

DISAGREE



Imagery Ability

1. I can rehearse my sport in my mind.	1	2	3	4	5	6
2. I rehearse my skills in my head before I use them.	1	2	3	4	5	6
3. It is difficult for me to form mental pictures.	6	5	4	3	2	1
4. I can easily imagine how movements feel.	1	2	3	4	5	6

Mental Preparation

5. I always set myself goals in training.	1	2	3	4	5	6
6. I always have very specific goals.	1	2	3	4	5	6
7. I always analyse my performance after I complete a competition.	1	2	3	4	5	6
8. I usually set goals that I achieve.	1	2	3	4	5	6

Self-Confidence

9. I suffer from lack of confidence about my performance.	6	5	4	3	2	1
10. I approach all competitions with confident thoughts.	1	2	3	4	5	6
11. My confidence drains away as competitions draw nearer.	6	5	4	3	2	1
12. Throughout competitions I keep a positive attitude.	1	2	3	4	5	6

Anxiety and Worry Management

13. I often experience fears about losing.	6	5	4	3	2	1
14. I worry that I will disgrace myself in competitions.	6	5	4	3	2	1
15. I let mistakes worry me when I perform.	6	5	4	3	2	1
16. I worry too much about competing.	6	5	4	3	2	1

Concentration Ability

17. My thoughts are often elsewhere during competition.	6	5	4	3	2	1
18. My concentration lets me down during competition.	6	5	4	3	2	1
19. Unexpected noises put me off my performance	6	5	4	3	2	1
20. Being easily distracted is a problem for me.	6	5	4	3	2	1

Relaxation Ability

21. I am able to relax myself before a competition.	1	2	3	4	5	6
22. I become too tense before competition.	6	5	4	3	2	1
23. Being able to calm myself down is one of my strong points.	1	2	3	4	5	6
24. I know how to relax in difficult circumstances.	1	2	3	4	5	6

Motivation

25. At competitions I am usually psyched enough to perform my coaching role well.	1	2	3	4	5	6
26. I really enjoy a tough competition.	1	2	3	4	5	6
27. I am good at motivating myself.	1	2	3	4	5	6
28. I usually feel that I try my hardest.	1	2	3	4	5	6

IMPORTANT INSTRUCTIONS.

Competitive State Anxiety Inventory 2-md [10 minutes]

The questionnaire overleaf assesses the thoughts and feelings that you experience about coaching under pressure. The effects of highly competitive sports can be powerful and very different among athletes and coaches. The inventory you are about to complete measures how you felt **during the last important competition or event that you coached in**. Please complete the inventory as honestly as you can. Sometimes coaches feel they should not admit to any nervousness, anxiety or worry they experience because this is undesirable. Actually, these feelings are common, and to help us understand them we want you to share your feelings with us candidly. If you were worried about this competition or had butterflies or other feelings that you know were signs of anxiety, please indicate these feeling accurately on the inventory. Equally, if you felt calm and relaxed indicate those feelings as accurately as you can. Your answers will not be shared with anyone.

The inventory is divided into 2 sections. Section 1 asks you to rate the level (amount) of symptoms that you experienced, and section 2 asks you to rate whether you viewed these symptoms as positive (facilitative) or negative (debilitative) towards performance. For example, for statement 2, you might indicate that you felt somewhat nervous (2), but that this had a very positive effect on your performance (+3).

Please take a moment to try and remember how you felt during the last important competition in which you coached (please also indicate the name/level of the competition here _____).

Read each statement carefully and circle the appropriate number in each section before moving onto the next statement.

		SECTION 1				SECTION 2						
		Not at all	Some- what	Moderat- ely so	Very much so	Very negative (debilitative)		Unimportant			Very positive (facilitative)	
1	I am concerned about this competition	1	2	3	4	-3	-2	-1	0	+1	+2	+3
2	I feel nervous	1	2	3	4	-3	-2	-1	0	+1	+2	+3
3	I feel at ease	1	2	3	4	-3	-2	-1	0	+1	+2	+3
4	I have self doubts	1	2	3	4	-3	-2	-1	0	+1	+2	+3
5	I feel jittery	1	2	3	4	-3	-2	-1	0	+1	+2	+3
6	I feel comfortable	1	2	3	4	-3	-2	-1	0	+1	+2	+3
7	I am concerned that I may not do as well in this competition as I could	1	2	3	4	-3	-2	-1	0	+1	+2	+3
8	My body feels tense	1	2	3	4	-3	-2	-1	0	+1	+2	+3
9	I feel self-confident	1	2	3	4	-3	-2	-1	0	+1	+2	+3
10	I am concerned about losing	1	2	3	4	-3	-2	-1	0	+1	+2	+3
11	I feel tense in my stomach	1	2	3	4	-3	-2	-1	0	+1	+2	+3
12	I feel secure	1	2	3	4	-3	-2	-1	0	+1	+2	+3
13	I am concerned about choking under pressure	1	2	3	4	-3	-2	-1	0	+1	+2	+3
14	My body feels relaxed	1	2	3	4	-3	-2	-1	0	+1	+2	+3
15	I am confident I can meet the challenge	1	2	3	4	-3	-2	-1	0	+1	+2	+3
16	I am concerned about performing poorly	1	2	3	4	-3	-2	-1	0	+1	+2	+3
17	My heart is racing	1	2	3	4	-3	-2	-1	0	+1	+2	+3
18	I'm confident about performing well	1	2	3	4	-3	-2	-1	0	+1	+2	+3
19	I'm worried about reaching my goal	1	2	3	4	-3	-2	-1	0	+1	+2	+3
20	I feel my stomach sinking	1	2	3	4	-3	-2	-1	0	+1	+2	+3
21	I feel mentally relaxed	1	2	3	4	-3	-2	-1	0	+1	+2	+3
22	I'm concerned that others will be disappointed with my performance	1	2	3	4	-3	-2	-1	0	+1	+2	+3
23	My hands are clammy	1	2	3	4	-3	-2	-1	0	+1	+2	+3
24	I'm confident because I mentally picture myself reaching my goal	1	2	3	4	-3	-2	-1	0	+1	+2	+3
25	I'm concerned I won't be able to concentrate	1	2	3	4	-3	-2	-1	0	+1	+2	+3
26	My body feels tight	1	2	3	4	-3	-2	-1	0	+1	+2	+3
27	I'm confident at coming through under pressure	1	2	3	4	-3	-2	-1	0	+1	+2	+3

IMPORTANT INSTRUCTIONS.

MCOPE [10 minutes]

The questionnaire overleaf is concerned with the strategies that you use to cope with stressful situations in your coaching role. **Please take a minute to think again about how you felt during the last important competition or event that you coached in, specifically, a particularly stressful situation that you might have encountered in your coaching role. Try to recall the situation as accurately as possible and think about the types of things you did to try to handle the situation.**

On the next pages, you will find a series of statements and two response scales. Please indicate (by circling the appropriate number) how much you used each strategy to handle the stressful situation you are thinking of (Scale 1: 1=Used very little/not at all, 5=Used very much), and then how effective this strategy was in helping you handle the situation (Scale 2: 1=Extremely ineffective, 5=Extremely effective). Again, coaches vary in the sorts of things they do to cope with stressful situations, so please be aware that there are no right or wrong answers and answer as honestly as you can.

SCALE 1

SCALE 2

	Used Very Little Or not at all	Used a Little	Used Somewhat	Used Much	Used Very Much	Extremely Ineffective	Somewhat Ineffective	Neither Effective or ineffective	Somewhat Effective	Extremely Effective
1. I asked other coaches what they did or would do	1	2	3	4	5	1	2	3	4	5
2. I talked to someone about how I felt	1	2	3	4	5	1	2	3	4	5
3. I could not deal with my coaching performance and stopped trying	1	2	3	4	5	1	2	3	4	5
4. I blamed myself for the situation	1	2	3	4	5	1	2	3	4	5
5. I made a plan of action	1	2	3	4	5	1	2	3	4	5
6. I dealt only with my coaching performance difficulties, even if I had to forget other things a little	1	2	3	4	5	1	2	3	4	5
7. I felt a lot of upset feelings and I showed those feelings a lot	1	2	3	4	5	1	2	3	4	5
8. I kidded around about my coaching performance	1	2	3	4	5	1	2	3	4	5
9. I tried to increase the quality of my coaching performance	1	2	3	4	5	1	2	3	4	5
10. I daydreamed about a better performance	1	2	3	4	5	1	2	3	4	5
11. I tried real hard to do something about my performance	1	2	3	4	5	1	2	3	4	5
12. I acted as though I was not having performance difficulties	1	2	3	4	5	1	2	3	4	5
13. I talked to other coaches or staff to find out more about my coaching performance	1	2	3	4	5	1	2	3	4	5
14. I got support and understanding from someone	1	2	3	4	5	1	2	3	4	5
15. I decreased the amount of time and effort I put into my coaching performance	1	2	3	4	5	1	2	3	4	5
16. I criticised or lectured myself	1	2	3	4	5	1	2	3	4	5

SCALE 1

SCALE 2

	Used Very Little Or not at all	Used a Little	Used Somewhat	Used Much	Used Very Much	Extremely Ineffective	Somewhat Ineffective	Neither Effective or ineffective	Somewhat Effective	Extremely Effective
17. I thought hard about what steps to take to manage this situation	1	2	3	4	5	1	2	3	4	5
18. I didn't let myself think about anything except my coaching performance	1	2	3	4	5	1	2	3	4	5
19. I got upset and let my feelings out	1	2	3	4	5	1	2	3	4	5
20. I made fun of my coaching performance	1	2	3	4	5	1	2	3	4	5
21. I put more effort into my coaching performance	1	2	3	4	5	1	2	3	4	5
22. I had fantasies or wishes about how things might turn out	1	2	3	4	5	1	2	3	4	5
23. I did what had to be done, one step at a time	1	2	3	4	5	1	2	3	4	5
24. I didn't believe I was performing like I was	1	2	3	4	5	1	2	3	4	5
25. I tried to get help from someone about what to do	1	2	3	4	5	1	2	3	4	5
26. I talked about my feelings with someone	1	2	3	4	5	1	2	3	4	5
27. I gave up trying to get what I want out of my performance	1	2	3	4	5	1	2	3	4	5
28. I decided I was at fault for my performance	1	2	3	4	5	1	2	3	4	5
29. I thought about how I could best handle my performance	1	2	3	4	5	1	2	3	4	5
30. I stopped doing other things in order to concentrate on my coaching performance	1	2	3	4	5	1	2	3	4	5
31. I lost my cool and got upset	1	2	3	4	5	1	2	3	4	5
32. I made jokes about my performance	1	2	3	4	5	1	2	3	4	5

SCALE 1

SCALE 2

	Used Very Little Or not at all	Used a Little	Used Somewhat	Used Much	Used Very Much	Extremely Ineffective	Somewhat Ineffective	Neither Effective or ineffective	Somewhat Effective	Extremely Effective
33. I tried to improve my effort	1	2	3	4	5	1	2	3	4	5
34. I wished the situation would go away or somehow be over	1	2	3	4	5	1	2	3	4	5
35. I took direct action to overcome the performance challenge	1	2	3	4	5	1	2	3	4	5
36. I pretended it was not happening or hadn't really happened	1	2	3	4	5	1	2	3	4	5
37. I talked to someone who could do something about my performance	1	2	3	4	5	1	2	3	4	5
38. I tried to get help from my coach or team-mates to deal with my feelings	1	2	3	4	5	1	2	3	4	5
39. I stopped trying to perform my best	1	2	3	4	5	1	2	3	4	5
40. I took responsibility for what had happened	1	2	3	4	5	1	2	3	4	5
41. I tried to think about a plan about what to do	1	2	3	4	5	1	2	3	4	5
42. I tried hard not to let other things get in my way of dealing with my performance	1	2	3	4	5	1	2	3	4	5
43. I let negative feelings out	1	2	3	4	5	1	2	3	4	5
44. I laughed about my performance	1	2	3	4	5	1	2	3	4	5
45. I worked harder	1	2	3	4	5	1	2	3	4	5
46. I wished I could change what was happening or had happened	1	2	3	4	5	1	2	3	4	5
47. I tried different things to improve	1	2	3	4	5	1	2	3	4	5
48. I told myself "this performance isn't real"	1	2	3	4	5	1	2	3	4	5

Thank you for completing the questionnaires.

Please make sure you have put your details on the front cover and bring the completed questionnaire pack to the first workshop.

Evaluation of the Programme

1. How important is it to be mentally prepared for the demands of coaching?

Not at all important for me



Extremely important for me

1 2 3 4 5 6 7

2. Do you consider any changes in your coaching performance to be significant?

Not at all significant for me



Extremely significant for me

1 2 3 4 5 6 7

3. How satisfied were you with the "Coaching under Pressure" workshop programme?

Not at all satisfied



Extremely satisfied

1 2 3 4 5 6 7

4. Did the programme prove useful for you?

Not at all useful for me



Extremely useful for me

1 2 3 4 5 6 7

5. If you feel that taking part in the programme has contributed to enhancing or hindering your coaching performance, can you state why you feel this to be the case?

6. What do you feel were the most beneficial aspects of the programme and why?

Appendix M

SPSS Outputs for Study 4

MSQ

CSAI-2md

MCOPE

MCOPE - Effectiveness

MSQ

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pre- msq imagery	5	17	20	18.60	1.342
pre- msq mental prep	5	12	21	16.80	3.421
pre- msq self-confidence	5	11	19	15.40	3.209
pre- msq anx/worry man	5	16	21	18.60	1.817
pre- msq concentration	5	18	24	21.80	2.490
pre- msq relaxation	5	11	18	14.60	2.510
pre- msq motivation	5	16	22	19.00	2.236
post- msq imagery	5	18	21	19.80	1.643
post- msq mental prep	5	15	21	18.40	2.408
post- msq self-confidence	5	15	20	17.80	1.924
post- msq anx/worry man	5	16	19	17.40	1.140
post- msq concentration	5	18	22	20.20	1.483
post- msq relaxation	5	15	20	18.00	2.345
post- msq motivation	5	16	22	18.60	2.191
Valid N (listwise)	5				

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- msq imagery and post- msq imagery equals 0.	Related-Samples Wilcoxon Signed Rank Test	.102	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- msq mental prep and post- msq mental prep equals 0.	Related-Samples Wilcoxon Signed Rank Test	.458	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- msq self-confidence and post- msq self-confidence equals 0.	Related-Samples Wilcoxon Signed Rank Test	.068	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- msq anxiety man and post- msq anxiety man equals 0.	Related-Samples Wilcoxon Signed Rank Test	.336	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- msq concentration and post- msq concentration equals 0.	Related-Samples Wilcoxon Signed Rank Test	.176	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- msq relaxation and post- msq relaxation equals 0.	Related-Samples Wilcoxon Signed Rank Test	.042	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- msq motivation and post- msq motivation equals 0.	Related-Samples Wilcoxon Signed Rank Test	.593	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

CSAI-2md

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pre- som intensity	5	16	29	19.60	5.413
pre- som direction	5	-7	10	.20	7.259
pre- cog intensity	5	19	29	22.40	3.975
pre- cog direction	5	-10	15	2.80	10.710
pre- sc intensity	5	12	34	23.80	7.855
pre- sc direction	5	-13	20	10.60	13.722
post- som intensity	5	12	26	17.00	5.385
post- som direction	4	-6	9	4.50	7.047
post- cog intensity	5	17	27	20.80	3.899
post- cog direction	4	-8	8	.25	7.136
post- sc intensity	5	20	30	24.40	3.782
post- sc direction	4	4	25	15.50	8.660
Valid N (listwise)	4				

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- som intensity and post- som intensity equals 0.	Related-Samples Wilcoxon Signed Rank Test	.068	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- cog intensity and post- cog intensity equals 0.	Related-Samples Wilcoxon Signed Rank Test	.197	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- sc intensity and post- sc intensity equals 0.	Related-Samples Wilcoxon Signed Rank Test	1.000	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- som direction and post- som direction equals 0.	Related-Samples Wilcoxon Signed Rank Test	.285	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- cog direction and post- cog direction equals 0.	Related-Samples Wilcoxon Signed Rank Test	.785	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between pre- sc direction and post- sc direction equals 0.	Related-Samples Wilcoxon Signed Rank Test	.273	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

MCOPE

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pre- instrumental support	5	6	14	9.20	3.033
pre- emotional support	5	4	13	8.00	3.674
pre- behavioural disengagement	5	4	9	6.80	2.588
pre- self-blame	5	12	18	14.40	2.510
pre- planning	5	14	16	15.20	.837
pre- supression competing act.	5	12	15	13.40	1.140
pre- venting	5	6	13	9.40	2.966
pre- humour	5	4	9	5.20	2.168
pre- effort	5	11	18	15.40	2.881
pre- wishful thinking	5	5	15	10.40	3.647
pre- active coping	5	10	16	13.60	2.881
pre- denial	5	5	8	6.20	1.095
post- instrumental support	5	5	13	8.60	3.050
post- emotional support	4	4	12	7.50	3.416
post- behavioural disengagement	5	4	9	6.00	2.345
post- self-blame	5	10	15	12.00	1.871
post- planning	5	10	18	14.60	3.435
post- supression competing act.	5	9	16	13.40	2.702
post- venting	5	5	13	9.60	2.966
post- humour	5	5	12	7.40	3.050
post- effort	5	11	20	15.60	3.507
post- wishful thinking	5	7	15	10.00	3.391
post- active coping	5	13	18	14.60	2.074
post- denial	5	5	9	6.60	1.517
Valid N (listwise)	4				

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- instrumental support and pre- instrumental support equals 0.	Related-Samples Sign Test	.250 ¹	Retain the null hypothesis.
2	The median of differences between pre- instrumental support and post- instrumental support equals 0.	Related-Samples Wilcoxon Signed Rank Test	.083	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- emotional support and pre- emotional support equals 0.	Related-Samples Sign Test	.250 ¹	Retain the null hypothesis.
2	The median of differences between pre- emotional support and post- emotional support equals 0.	Related-Samples Wilcoxon Signed Rank Test	.102	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- behavioural disengagement and pre- behavioural disengagement equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- behavioural disengagement and post- behavioural disengagement equals 0.	Related-Samples Wilcoxon Signed Rank Test	.414	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- self-blame and pre- self-blame equals 0.	Related-Samples Sign Test	.063 ¹	Retain the null hypothesis.
2	The median of differences between pre- self-blame and post- self-blame equals 0.	Related-Samples Wilcoxon Signed Rank Test	.041	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- planning and pre- planning equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- planning and post- planning equals 0.	Related-Samples Wilcoxon Signed Rank Test	.588	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- suppression competing act. and pre- suppression competing act. equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- suppression competing act. and post- suppression competing act. equals 0.	Related-Samples Wilcoxon Signed Rank Test	1.000	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- venting and pre- venting equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- venting and post- venting equals 0.	Related-Samples Wilcoxon Signed Rank Test	.888	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- humour and pre- humour equals 0.	Related-Samples Sign Test	.125 ¹	Retain the null hypothesis.
2	The median of differences between pre- humour and post- humour equals 0.	Related-Samples Wilcoxon Signed Rank Test	.068	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- effort and pre- effort equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- effort and post- effort equals 0.	Related-Samples Wilcoxon Signed Rank Test	.655	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- wishful thinking and pre- wishful thinking equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- wishful thinking and post- wishful thinking equals 0.	Related-Samples Wilcoxon Signed Rank Test	.888	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- active coping and pre- active coping equals 0.	Related-Samples Sign Test	.625 ¹	Retain the null hypothesis.
2	The median of differences between pre- active coping and post- active coping equals 0.	Related-Samples Wilcoxon Signed Rank Test	.461	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- denial and pre- denial equals 0.	Related-Samples Sign Test	.500 ¹	Retain the null hypothesis.
2	The median of differences between pre- denial and post- denial equals 0.	Related-Samples Wilcoxon Signed Rank Test	.157	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

MCOPE - Effectiveness

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pre- instrumental support Eff	5	13	15	14.00	1.000
pre- emotional support Eff	5	12	15	13.00	1.225
pre- behavioural disengagement Eff	5	4	16	8.80	4.604
pre- self-blame Eff	5	10	17	13.00	3.082
pre- planning Eff	5	15	18	16.20	1.304
pre- supression competing act. Eff	4	9	15	13.00	2.828
pre- venting Eff	5	10	12	11.20	1.095
pre- humour Eff	5	11	16	12.60	1.949
pre- effort Eff	5	10	17	14.80	2.864
pre- wishful thinking Eff	5	8	13	10.20	2.280
pre- active coping Eff	5	12	18	15.40	2.408
pre- denial Eff	5	6	14	10.80	3.114
post- instrumental support Eff	5	14	18	15.40	1.673
post- emotional support Eff	4	11	18	14.50	3.109
post- behavioural disengagement Eff	5	4	17	10.20	5.630
post- self-blame Eff	5	11	18	13.40	2.702
post- planning Eff	5	15	20	17.00	1.871
post- supression competing act. Eff	5	8	15	12.20	3.834
post- venting Eff	5	10	15	12.20	1.789
post- humour Eff	4	9	13	11.25	1.708
post- effort	5	14	18	16.20	1.789
post- wishful thinking Eff	5	7	13	9.20	2.280
post- active coping Eff	5	16	20	17.20	1.643
post- denial Eff	5	7	15	11.00	3.536
Valid N (listwise)	3				

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- instrumental support Eff and pre- instrumental support Eff equals 0.	Related-Samples Sign Test	.625 ¹	Retain the null hypothesis.
2	The median of differences between pre- instrumental support Eff and post- instrumental support Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.197	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- emotional support Eff and pre- emotional support Eff equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- emotional support Eff and post- emotional support Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.414	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- behavioural disengagement Eff and pre- behavioural disengagement Eff equals 0.	Related-Samples Sign Test	.625 ¹	Retain the null hypothesis.
2	The median of differences between pre- behavioural disengagement Eff and post- behavioural disengagement Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.465	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- self-blame Eff and pre- self-blame Eff equals 0.	Related-Samples Sign Test	.625 ¹	Retain the null hypothesis.
2	The median of differences between pre- self-blame Eff and post- self-blame Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.577	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- planning Eff and pre- planning Eff equals 0.	Related-Samples Sign Test	.625 ¹	Retain the null hypothesis.
2	The median of differences between pre- planning Eff and post- planning Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.577	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- suppression competing act. Eff and pre- suppression competing act. Eff equals 0.	Related-Samples Sign Test	.500 ¹	Retain the null hypothesis.
2	The median of differences between pre- suppression competing act. Eff and post- suppression competing act. Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.180	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- venting Eff and pre- venting Eff equals 0.	Related-Samples Sign Test	.500 ¹	Retain the null hypothesis.
2	The median of differences between pre- venting Eff and post- venting Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.180	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- humour Eff and pre- humour Eff equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- humour Eff and post- humour Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.285	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- effort and pre- effort Eff equals 0.	Related-Samples Sign Test	.625 ¹	Retain the null hypothesis.
2	The median of differences between pre- effort Eff and post- effort equals 0.	Related-Samples Wilcoxon Signed Rank Test	.257	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- wishful thinking Eff and pre- wishful thinking Eff equals 0.	Related-Samples Sign Test	1.000 ¹	Retain the null hypothesis.
2	The median of differences between pre- wishful thinking Eff and post- wishful thinking Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.276	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- active coping Eff and pre- active coping Eff equals 0.	Related-Samples Sign Test	.375 ¹	Retain the null hypothesis.
2	The median of differences between pre- active coping Eff and post- active coping Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.104	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between post- denial Eff and pre- denial Eff equals 0.	Related-Samples Sign Test	.625 ¹	Retain the null hypothesis.
2	The median of differences between pre- denial Eff and post- denial Eff equals 0.	Related-Samples Wilcoxon Signed Rank Test	.713	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

¹Exact significance is displayed for this test.