Performance blocks in sport : recommendations for treatment and implications for sport psychology practitioners

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Abstract

Sport psychologists are increasingly confronted with performance difficulties where athletes mysteriously lose the ability to execute automatic movements (Rotheram, Maynard, Thomas, Bawden & Francis, 2012). Formerly known as *performance blocks*, these problems appear to manifest in locked, stuck, and frozen movements, loss of fine and/or gross motor control, and debilitating anxiety (Bennett, Hays, Lindsay, Olusoga & Maynard, 2015). A recent investigation examined the effectiveness of *eye movement desensitisation and reprocessing* (EMDR) with graded exposure to treat two performance block-affected individuals (Bennett, Unpublished doctoral dissertation, 2015). Evaluation of the interventions showed improved performance of the affected skills and reduced anxiety in both cases. Interview data collected on completion of each intervention confirmed that associated symptoms were also alleviated. The success of these two interventions offers considerable value to sport psychologists, the implications of which the current paper hopes to address. Specifically, the manuscript provides an overview of current research pertaining to performance blocks, followed by recommendations for treatment, and implications for sport psychologists, highlighting the importance of involving clinical psychology support in formulation and treatment processes.

Key words: trauma, anxiety, yips, lost move syndrome, performance blocks.

Introduction

Performance blocks are thought to manifest in locked, stuck, or frozen movement, with sudden, and temporary loss of fine and/or gross motor control (Bennett, Hays, Lindsay, Olusoga & Maynard; 2015). Affecting an athletes' ability to execute previously automatic movements, such severe problems have caused long-term loss of skills, and retirement from sport (Bawden & Maynard, 2001). The current paper presents an overview of existing research pertaining to performance blocks. Specifically, psychological characteristics of performance blocks are outlined, followed by treatment recommendations, practical implications, and considerations for sport psychologists. Particular focus is paid towards the importance of collaboration between clinical and sport practitioners in the formulation and treatment of performance blocks.

Until recently, performance blocks have been described in the sport psychology literature with disparity. For example, in artistic sports this type of affliction has been referred to as *lost move syndrome* (LMS; Day, Thatcher, Greenlees & Woods, 2006), whereas in golf and cricket individuals are said to suffer from the *yips* (McDaniel, Cummings & Shain, 1989). Bennett and colleagues (2015) addressed this disparity in an effort to understand the underlying psychological components of these disorders, and ultimately produce generic terminology that might facilitate the identification and treatment of these problems. They conducted a series of qualitative interviews to explore the lived experience of the yips and LMS, revealing several emotional, cognitive, and physical components that were common features of both. Indeed, the only factor distinguishing between the yips and LMS was their physical presentation (e.g., movement breakdown affecting muscles required for a putting stroke in golf, or a forward twist in diving). A central component of both these disorders was the heightened level of cognitive and somatic anxiety, coupled with complete momentary loss

of cognitive control. It was postulated that the momentary loss of cognitive control might signify the involvement of subconscious processes.

It also emerged that certain characteristics might be involved in the longevity of these problems. For example, participants reported obsessive patterns of thought, involuntary behaviours, reinvestment in solving the problem, and self-critical thinking related to the experience. Furthermore, it was reported that attempts to overcome problems using cognitive methods had produced only mild, temporary relief of symptoms at best. In a follow-up study, Bennett, Rotheram, Hays, Olusoga, Maynard and Lindsay (2016) adopted psychometric measures of perfectionism, rumination, reinvestment, and subjective stress response to explore potential vulnerability factors. Findings revealed that levels of perfectionism, rumination, and reinvestment were greater in individuals experiencing the yips and LMS, than in matched control groups. Furthermore, those suffering from the yips/LMS also reported higher levels of stress in response to their worst performance experience than their non-suffering counterparts, and these levels were comparable to minor trauma experience (Bennett et al., 2016). This is consistent with previous research associating the yips and LMS with significant life-events, and/or trauma (e.g., Day et al., 2006; Rotheram et al., 2012). Bennett and colleagues (2015; 2016) suggested that the yips and LMS are perhaps one and the same form of anxiety-based disorder, and that their classification ought to be reconsidered accordingly. As such, *performance blocks* were put forward as an appropriate descriptor.

Previous research has suggested that emotionally significant, or traumatic life-events might be associated with the onset and development of performance block type problems (e.g., Rotheram, Maynard, Thomas, Bawden & Francis, 2012). Similarly, the experience of trauma throughout the life-course has been associated with the development of various anxiety-based disorders (Scaer, 2014; Shapiro, 1999; 2012). Anxiety is said to play a major role in the course of events following a significant life-experience (Scaer, 2014). Specifically,

it is thought that early life-events involving psychological, behavioural, and/or psychophysiological distress, can lead to a range of somatic and cognitive disturbances years later (Lohr, Lillienfeld & Rosen, 2012; Stokes, 2009). Research has demonstrated that environmental stimuli, even vaguely threatening, and/or associated with an early memory can reactivate memories of disturbing life-events years after the event occurred, causing aspects of the initial event to resurface in the form of physical and psychological distress, but without further context (McFarlane & Yehuda, 2000; Shapiro, 2001). This would certainly explain the self-perpetuating nature by which performance blocks develop, if, similarly to anxiety disorders, individuals become trapped in a cycle of anxiety experience associated with a past memory, the details of which they are unable to comprehend. It is thought that the level of emotion attached to traumatic, threatening experiences overwhelms the brain's capacity to attend to all incoming stimuli, and therefore process the event appropriately (Stokes, 2009). Thus, details of the experience often remain hidden, and the memory itself is stored in the form of somatic, cognitive and emotional symptoms experienced during the initial event (Scaer, 2014). Bennett and colleagues (2015) reported that individuals suffering from performance blocks described being unable to visualise execution of the affected skill, and/or visualising getting stuck, or only being able to recall certain aspects of the skill. Due to the heightened levels of emotion and distress involved in performance blocks, it is perhaps not surprising that loss of memory and mental blocks were common occurrences.

Given the lack of success achieved through cognitive therapy alone in treating performance blocks (e.g., Bennett et al., 2015; Philippen, Legler, Land, Schuetz & Schack, 2014; Rotheram, Thomas, Bawden & Maynard, 2007), Bennett (Unpublished doctoral dissertation, 2015) conducted an intervention-based study to identify an appropriate treatment method for performance blocks, specifically targeting the psychological, and subconscious components evidently involved. Considering the similarities between performance blocks and

other anxiety-based disorders, the efficacy of treatment methods for anxiety-disorders was explored. Two separate case studies were conducted to investigate the effectiveness of *eye movement desensitisation and reprocessing* (EMDR; Shapiro, 1999; 2001) with graded exposure to treat two performance block-affected individuals. The findings from this study provide further evidence for a relationship between significant life-events, anxiety, and subconscious processes (i.e., loss of cognitive control) associated with development of performance blocks, thus supporting the notion that these problems are similar forms of an anxiety-based disorder.

Practical Implications

Based on existing research, it appears that performance blocks are a form of psychological, anxiety-based disorder involving a sub-conscious component. To our knowledge, only one study has effectively addressed the treatment of performance blocks in sport (Bennett, Unpublished doctoral dissertation, 2015). In their study, the effectiveness of a combined intervention using EMDR and graded exposure was applied to two individuals suffering from performance blocks. Treatment focussed on reprocessing memories of significant life-events, reframing negative cognitions, and reducing anxiety levels, all of which were believed to have contributed to the development and maintenance of performance block symptoms. Reprocessing these memories using EMDR, and addressing associated symptoms underpinned by anxiety, resulted in the elimination of dysfunctional thoughts, feelings and behaviours, and improved ability to execute the affected skills in both cases. Social validation data collected on completion of each intervention confirmed that these benefits had transferred to training, competition, and improved social functioning.

The unique context of elite sport dictates that several practicalities need to be considered before this type of intervention can be delivered. First and foremost, it appears that the most effective form of treatment includes the use of two methods (e.g., EMDR and graded

exposure), one of which (EMDR) is currently outside the realms of traditional sport psychology, and therefore requires clinical expertise. The involvement of a clinical psychologist in Bennett's (Unpublished doctoral dissertation, 2015) is testament to this. Specifically, it was demonstrated that the prescription of EMDR delivered by a clinical psychologist allowed previous trauma experience to be processed, subsequently providing relief from symptoms associated with the performance block. The EMDR therapists involved in this research discussed the importance of involving an experienced clinician when treating any psychological disorder involving trauma-related symptoms, and that appropriate supervision should be in place throughout treatment. It is therefore advised that suitable support is in place for sport psychology practitioners, and that clinical experts are involved in the formulation and treatment of performance block difficulties.

The importance of using treatment plans that are adaptable to individual needs and can be shaped accordingly as treatment progresses is paramount. Bennett's research demonstrated the importance of the sport psychologists working closely with EMDR therapists to ensure comprehensive understanding of the environment, and effective integration of each aspect of the interventions. In each case the sport psychologists ensured all individuals involved (e.g., coach, athlete, practitioners) were kept informed, and involved throughout each stage of treatment. Additional considerations specific to the context include individual training and competition demands. For example, each intervention had to be scheduled in such a way that it did not interfere with training loads. Possible side effects of EMDR treatment include emotional and cognitive fatigue (Shapiro & Forrest, 2004), and therefore each session should precede an appropriate period of recovery time for the individual. Furthermore, sleep disturbance (e.g., dreaming, flashbacks) and memory recall are also common side effects of EMDR, and so the individuals environment and support network must be fully equipped to manage these effects.

It is clear that the initial perception and interpretation of any significant life-experience is imperative to what follows. Indeed, this research highlights the importance of sport psychologists considering the impact of significant life-events (sporting or otherwise) on athletic performance. Specifically, whether a significant event is effectively processed and the emotional content appropriately managed. The importance of talking through the physical, cognitive, and emotional experience of a significant-event with an individual is necessary to facilitate appropriate processing of the overwhelming emotional content attached to the experience in a safe, supportive environment. It is also recommended that relevant personnel (e.g., coaches, performance support team, psychologist) are educated on effective debriefing of significant life-events with athletes, in both the training and competition environments.

Bennett's research has demonstrated that performance blocks also have a negative impact on social functioning (e.g., avoidance towards the affected environment, disturbed sleep, isolation, bouts of depression). This research opens the door for education programs to be developed so that coaches and athletes can recognise and understand performance blocks better, and subsequently manage environments to promote healing and prevent further distress. Isolation, confusion, avoidance, and fear associated with not understanding the problem were all reported in Bennett's (Unpublished doctoral dissertation, 2015) study. Thus, educating individuals on appropriate language used in reference to these problems might prevent associated symptoms being further exacerbated.

Individuals suffering from performance blocks have revealed high levels of perfectionism, rumination, and reinvestment (Bennett et al., 2016). Hence, some form of assessment of these attributes might be beneficial for practitioners working in sport, and allow for preventative measures to be put in place to help avoid development of performance blocks. Furthermore, addressing whether an individual reflects perfectionism in a dysfunctional manner, and exploring the content of ruminative thinking patterns, might also

indicate the impact these characteristics have on the development of performance blocks. Taking these factors into consideration, educational sessions could be developed to raise awareness of the potential negative impact of perfectionism, and to develop skills such as rationalising, or countering debilitating perfectionistic and/or ruminative thinking patterns.

This study supports the growing evidence suggesting EMDR is a fast and effective treatment method for processing emotional and/or traumatic memories, and that addressing the major emotional component involved in the performance blocks facilitates performance improvement. It is recommended that future research look to examine the prevalence of these problems in other sports to establish if athletes experience similar symptoms to those presented. For example, it might be that individuals in other sports experience the same psychological, emotional, and behavioural symptoms associated with performance blocks, and that the physical manifestation affects the muscles involved in execution of the affected skill (e.g., finger spasms in shooting, fore-arm/wrist muscles in racquet sports). Indeed, previous research has referred to movement disruption in sports such as archery (Thomas, 2008), darts (Rotheram et al., 2007), and baseball (Hooke, 2005). However, the majority of these reports are anecdotal and lack scientific research evidence, and it is therefore recommended that future research investigate these further.

Summary and Concluding Remarks

Before the commencement of this program of research, performance blocks had been considered as entirely distinct performance issues according to sport (e.g., the yips/LMS), and there was yet to be an effective treatment method developed. We are now much closer to understanding the pathology of these issues and therefore their appropriate diagnosis. This research has demonstrated that EMDR with graded exposure offers an effective treatment for performance blocks, the fundamental components of which are anxiety, loss of cognitive and motor control, and physical movement disruption. It is recommended that treatment consist of

EMDR with graded exposure. Implications for sport advocate that the language associated with these problems ought to be reconsidered towards the generic classification performance block. Second, education programs should be developed so that coaches, athletes, and sport psychologists can have a better understanding of these problems, and therefore more effectively manage the athletes environment to promote healing and avoid exacerbating symptoms. If sport psychologists are to address performance blocks it is recommended that further training be provided on the pathology of these problems, and that treatment involves a collaborative approach between sport psychologist and clinical psychologist as a minimum.

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