Leadership styles used by senior medical leaders : patterns, influences and implications for leadership development

CHAPMAN, Ann L N, JOHNSON, David and KILNER, Karen <http://orcid.org/0000-0003-0196-8518>

Leadership styles used by senior medical leaders:

patterns, influences and implications for leadership development

Author Details *(please list these in the order they should appear in the published article)*

Ann LN Chapman
Department of Infection and Tropical Medicine
Sheffield Teaching Hospitals NHS Foundation Trust
Sheffield
UK

David Johnson
Faculty of Health and Wellbeing
Sheffield Hallam University
Sheffield
UK

Karen Kilner
Centre for Health and Social Care Research
Sheffield Hallam University
Sheffield
UK

Corresponding author: Dr Ann LN Chapman
Email: ann.chapman2@nhs.net

☐ *Please check this box if you do not wish your email address to be published*

Acknowledgments (if applicable):

Funding source: This research received no specific funding.
The authors report no conflicts of interest.

Biographical Details (if applicable):

Ann LN Chapman is Lead Consultant/Honorary Senior Lecturer in Infectious Diseases at Sheffield Teaching Hospitals NHS Foundation Trust. She designed and conducted this study as part of a Masters degree in Medical Leadership.

David Johnson is a Senior Lecturer at the Centre for Leadership in Health and Social care at Sheffield Hallam University. His research interests focus on the conceptualisation of leadership within health and social care organisations in the UK.

Karen Kilner is Senior Lecturer in Statistics in the Centre for Health and Social Care Research at Sheffield Hallam University. She teaches on the Master's programme in Health and Social Care Leadership.

Structured Abstract:

Purpose: Clinician leadership is important in healthcare delivery and service development. The use of different leadership styles in different contexts can influence individual and organisational effectiveness. The purpose of this study was to determine the predominant leadership styles used by medical leaders and factors influencing leadership style use.

Design: A mixed methods approach was used, combining a questionnaire distributed electronically to 224 medical leaders in acute hospital trusts with in

depth ‘critical incident’ interviews with six medical leaders. Questionnaire responses were analysed quantitatively to determine firstly the overall frequency of use of six predefined leadership styles, and secondly, individual leadership style based on a consultative/decision-making paradigm. Interviews were analysed thematically using both a confirmatory approach with predefined leadership styles as themes; and also an inductive grounded theory approach exploring influencing factors.

Findings: Leaders used a range of styles, the predominant styles being democratic, affiliative and authoritative. Although leaders varied in their decision-making authority and consultative tendency, virtually all leaders showed evidence of active leadership. Organisational culture, context, individual propensity and ‘style history’ emerged during the inductive analysis as important factors in determining use of leadership styles by medical leaders.

Implications: The outcomes of this evaluation are useful for leadership development at the level of the individual, organisation and wider NHS.

Originality/value: This study adds to the very limited evidence base on patterns of leadership style use in medical leadership and reports a novel conceptual framework of factors influencing leadership style use by medical leaders.

Keywords: Leadership styles; physician leaders; clinical leadership; medical leadership; healthcare; leadership skills.

Article Classification: Research Paper

For internal production use only

Running Heads:

Leadership styles used by senior medical leaders:

patterns, influences and implications for leadership development

Introduction

The concept of leaders and followers has for centuries been a central tenet of human society. Numerous definitions of leadership have been proposed, but most conclude that leadership (1) is a process, (2) entails influence, (3) occurs within a group setting, and (4) involves shared goals or visions (Schreuder et al., 2011). Numerous theoretical models of leadership have been developed, exploring whether leadership relates to innate characteristics, actions or behaviours of the leader (Adair, 1973; Hernandez et al., 2011; Northouse, 2012). The concept of leadership 'style' emerged through classical studies conducted by Lewin, Lippitt and White (Lewin et al., 1939). They identified authoritarian, democratic and laissez-faire styles of leadership, and demonstrated that leadership style had a profound effect on group productivity and interactions with other group members and the leader. Others have elaborated the concept of leadership styles, for example Slevin and Pinto (1991) and Singh and Jampel (2010)(figure 1), who developed a model incorporating 5 distinct leadership styles based on the balance between decision-making and consultative propensity. Goleman (2000) proposed a set of six leadership styles based on aspects of emotional intelligence and linked these to leader effectiveness, and positive or negative impact on organizational climate (table 1). Others have recognized the importance of situational factors, with the concept of a leader 'choosing' a style appropriate to the context (Tannenbaum and Schmidt, 1073; Hersey and Blanchard, 1993).

In the context of healthcare, there is now general acceptance of the importance of engaging doctors in leadership roles (Ham, 2003; Kumar, 2013; Swanwick and McKimm, 2011; Darzi, 2008), with recognition that deficiencies in medical leadership can have a detrimental effect on patient care (Francis, 2013; The

King's Fund, 2011). Although there is a substantial literature on leadership in business and education contexts, relatively little is known about how medical leaders lead. Much attention has been placed on the concept of transformational versus transactional leadership, Historically there has been a perception that transactional approaches predominate in medical leaders, encouraged by hierarchical organisational structure and culture (Schwartz and Tumblin, 2002). The transformational style is perceived as more effective and has been used as a basis for leadership development activity, including the national medical leadership competency framework (2010), however, recent studies conclude that the perception of these two styles as being mutually exclusive is over-simplified (Xiragasar et al., 2005; Horwitz et al., 2008; Palmer et al., 2008). Furthermore the optimal approach to identifying and training successful medical leaders has not been established. To this end, a deeper understanding of the practice of leadership by doctors in healthcare settings, and of the personal characteristics and behaviours that are associated with successful medical leadership, would be of immense value in developing and delivering leadership training. Improving medical leadership has the potential to result in improvements in service design and delivery, use of resources and quality of patient care.

This study explored the practice of leadership by a group of senior medical leaders in the Yorkshire and Humber region, focusing on the concept of leadership styles. The objectives were to determine which leadership styles are predominantly used by medical leaders, and to identify factors influencing their use of different leadership styles. A mixed methods approach was used, combining a quantitative questionnaire-based self-assessment of medical leaders' use of predefined leadership styles with qualitative analysis of in depth interviews. In this study, the term 'medical leader' was taken to mean a doctor who holds a senior managerial role at organisational level. Medical leaders by definition play two leadership roles: as a senior clinician with responsibility for supervising a clinical team delivering patient care, and as part of the managerial structure of the healthcare organisation. The doctor may use very different leadership skills in these two roles, and here only the non-clinical role was examined.

Methods

Approval was gained from Sheffield Hallam University and Sheffield Teaching Hospitals NHS Foundation Trust prior to commencement of the study. Ethical approval was deemed by both bodies not to be required.

Questionnaire

The use of specific leadership styles by medical leaders was examined using a self-assessment questionnaire. The first section included a grid giving brief descriptions of the six leadership styles described by Goleman (2000)(table 1), and asked respondents to allocate 100 percentage points across the styles based on the extent to which they use them in their medical leadership role. The second section used the leadership tool described by Singh and Jampel (2010)(figure 1). This consisted of 22 brief statements, with respondents being asked to select how strongly they agreed or disagreed with each statement using a 5-point Likert scale. The questionnaire was piloted prior to distribution to the study group.

Participants were clinical and medical directors in acute hospital trusts across Yorkshire and Humber region. Medical directors of the 14 trusts were approached for permission to contact clinical directors in their organisation to request participation in the study. Positive responses were received from 12/14 medical directors. Clinical directors in these trusts were emailed either directly (10 trusts) or indirectly via the medical director's office (2 trusts) with an explanation of the aims of the study and an electronic link to the questionnaire. The survey tool was set up so that only one response could be sent from each respondent. For clinical directors approached directly, a reminder email was sent after two weeks.

Questionnaire data were analysed quantitatively. In the first part the percentage scores that respondents allocated to each of the six leadership styles were summated for the group, allowing a score for the overall self-reported use of each style by the group. In the second section, responses for each individual were extracted and entered onto a spreadsheet. Scores for each individual

were summated to produce a score for two aspects of leadership behaviour: decision-making ability (D) and propensity to consult team members (I). These scores were converted to percentiles and plotted on a grid, giving a visual read-out (Singh and Jampel, 2010; figure 1).

Statistical analysis was conducted to explore differences in leadership style use relating to gender, clinical speciality and prior leadership training. Univariate analysis of each leadership style was carried out by fitting a general linear model. For multivariate analysis, the data were treated as compositional and the six styles were represented by five new variables obtained by a generalized logistic transformation. A multivariate analysis of variance (MANOVA) was then carried out to determine if there were any overall differences in response between sub-groups.

Semi-structured interviews

In-depth interviews were undertaken with six medical/clinical directors from across the Yorkshire and Humber region (Arksey and Knight, 1999; Dicicco-Bloom and Crabtree, 2006). Interviewees were selected by purposive sampling to ensure variation in gender, hospital trust and clinical specialty, and gave signed consent prior to being interviewed.

Interviews were performed using a critical incident interview approach (Boyatzis, 1998; McClelland, 1998; Chell, 2004). Interviewees were asked to describe a scenario which they felt that they had been effective in their role as a medical leader; and a situation where the outcome had been less positive and where they felt that they had been less effective. In the final part of the interview, interviewees were asked for their views on the results of the questionnaire survey and on use of different leadership styles in general.

Interviews were recorded and transcribed. Analysis was undertaken thematically using two separate strategies. In the first, a confirmatory template analysis approach was used, with Goleman's leadership styles forming the themes (Guest et al., 2012; King, 2004). Transcripts were reviewed and descriptions of use of each of the six leadership styles sought within the critical

incident scenarios. Decisions were taken as to the presence of evidence for the use of a particular style of leadership based on descriptions of the key characteristics of each style (Goleman, 2000; table 1). The overall frequency of each style was summated to generate a score for that individual.

The second analytic strategy examined qualitatively the impact of context on use of leadership styles using an inductive grounded theory approach. Transcripts were coded, and codes then combined and contrasted to develop themes (Boyatzis, 1998). Data collection and analysis occurred concurrently; themes were reviewed regularly through ongoing data collection to ensure that they captured the full breadth of the data.

Results

Questionnaire

Response rate and demographics

The survey was distributed to 224 clinical/medical directors across 12 hospital trusts in Yorkshire and Humber, of whom 78 (35%) responded (table 2). 58/76 respondents who gave gender information were male (76%), and the median age group was 46-50 years. A wide range of clinical specialties was represented, the largest groups being medical, surgical, anaesthetics and diagnostics. 85% of respondents had had some previous leadership training: of these just under half (47%) had participated in a formal leadership course within their hospital trust, while 10% had undertaken an external course leading to an academic qualification (table 2).

Leadership styles: Goleman model

Figure 2 shows the self-reported use of Goleman's six leadership styles across 78 respondents. Sixty two respondents (79%) allocated percentage points to all six styles, with seven, five and four individuals allocating points to three, four and five styles respectively. The predominant styles overall were affiliative and democratic, while coaching and commanding styles were reported least frequently.

Subgroup analysis was conducted for medical versus surgical specialties, male versus female leaders, and medical leaders working in foundation trusts versus non-foundation trusts. On univariate analysis, the only significant difference was that men were more likely to use the coaching style than women ($p= 0.047$). There were no statistically significant differences on multivariate analysis (data not shown).

Leadership styles: Singh and Jampel model

In the leadership flexibility space model all leadership styles were represented, with most individuals mapping to the consensus manager style, that is, leaders

who consult to a large extent but who show limited independent decision-making (figure 3). The active manager style was the second most frequent: this represents the 'optimal' combination of consultative and decision-making styles. A smaller number of individuals were consultative autocrats, that is, they consult but do not necessarily take the outcome of this consultation into consideration when making decisions. The impoverished manager and complete autocrat styles were rarely seen.

Semi-structured interviews

Interviews were conducted with four clinical and two medical directors from acute hospital trusts in Yorkshire and Humber. Scenarios chosen by interviewees covered a wide range of topics, including introduction of a new service or policy, merger of teams and reduction in hospital-acquired infection.

Confirmatory analysis of positive scenarios

Transcripts were examined for data extracts demonstrating use of Goleman's leadership styles, and numbers of extracts for each style scored for each individual. It became apparent that the negative scenarios were less useful than positive scenarios for this purpose: therefore in the confirmatory analysis only the positive scenarios were used. Of the six individuals, one used three of the styles, three used four of the styles and two used five of the styles (table 3). The most frequently used styles were authoritative, democratic and affiliative, and those least used were coaching, commanding and pace-setting.

Inductive analysis

Factors influencing use of leadership styles were explored through inductive analysis of interview transcripts. Four themes became apparent and these are outlined below with illustrative quotations.

The Organisation

Several interviewees mentioned the idea that organisations have their own individual 'culture', with the leadership styles of medical leaders being influenced by the prevailing culture. This in turn is determined by the trust

senior management and also by the external environment and how this changes over time:

> '*Different trusts have different ways of doing things, they're culturally completely different about what's acceptable and what's the desired model for being CD or not.'*

> *'The trust would like to go more away from the authoritative and commanding styles to coaching and affiliative types of styles. But actually a set of recent appointments were more in the reverse direction, probably driven by targets and imperatives that must be done.'*

Characteristics of the leader as an individual

The quantitative results have already demonstrated that individuals vary in their natural propensity to use certain styles, and this also emerged as a theme in the inductive analysis. Several respondents made associations between preferred style(s) and choice of clinical specialty:

> *'Surgeons, they do have, I'm convinced of it, more pace-setting and authoritative style….. not the same for physicianly types who spend more time pondering anyway, and are much more reliant on multiprofessional groups to solve problems.'*

In addition, age or experience was felt to be important, with the concept that people move away from a commanding style:

> *'I think that the older the clinical leaders are, the wiser they are to the fact that you can't work in an autocratic style, it just doesn't work in most settings unless there's an emergency.'*

The third sub-theme was the concept of flexibility in use of leadership styles: a high level of flexibility was felt to be a positive attribute, and it was noted that some leaders were better in this than others.

'Most people tend to select 1 or 2 or 3 styles that they can comfortably deploy and use them in certain scenarios. There may be some very clever people who can easily use all 6 of them at the drop of a hat.'

Context

All interviewees referred to the importance of context in choice of leadership style. Context was considered as relating to the task being performed and the urgency with which it needs to be completed, for example the benefits of the commanding or democratic styles in the data extract below:

'If there's a fire, you don't want to get in a group hug and have a fluffy discussion about who's going to leave the building first. But equally, if you're trying to solve a wicked problem, you need everybody in the team to be able to contribute to solving it.'

In addition the constitution of the team working with the clinical leader was felt to be important, both in terms of maintaining interpersonal relationships and in dealing with dissenters:

'Lots of the people that get involved in medical management, particularly if they're younger, are especially nervous about upsetting their colleagues.'

'It was really quite a difficult time because those people would then go and stir it up with the others, you know, who were starting to settle down and get their confidence.'

Style 'history'

The final theme that emerged was the idea that styles may be used sequentially, that is, the leader may try one style but move onto another if the first does not give results, for example the data extract below referring to use of the commanding style:

‘That’s the sort of thing you should do very rarely and only after some of the others have failed.’

The four themes derived by inductive analysis were combined to form a thematic map linking the factors influencing the use of leadership styles by medical leaders (King, 2004; figure 4).

Discussion

This study demonstrates that medical leaders use a range of leadership styles, with no one pattern predominating, that is, there is no one single 'typical' medical leader. As found in previous studies, individual leaders tended naturally to favour a small number of styles: overall the authoritative, democratic and affiliative styles were used most frequently, and the coaching, commanding and pace-setting styles less frequently. In this study several methodological approaches were used, and there was overall good correlation between them. The one area of disagreement was in the extent to which the authoritative style was used. This was the most frequent style observed in the interviews, but was selected infrequently by questionnaire respondents. However, in the interviews it became clear that the term 'authoritative' was regularly misunderstood, being taken to mean 'authoritarian' or 'autocratic', rather than the more 'transformational' meaning in Goleman's use of the word. In the Singh and Jampel model, again a range of individual leadership styles was found across consensus manager, active manager and consultative autocrat typologies. The consensus manager style was the most frequent, supporting the results of the assessment of Goleman's styles. Only one individual fell into the impoverished manager range, and this agrees with previous findings that passive-avoidant styles are rarely used in medical leadership (Xiragasar et al., 2005; Horwitz et al., 2008). Only one individual was categorised as a complete autocrat.

Goleman and others have demonstrated that the most effective leaders use a wider range of leadership styles and choose the most appropriate style for a given setting (Goleman, 2000; Pennington, 2003). In this study, the four themes affecting choice of leadership style were: organisation; context; individual characteristics; and 'style history' (figure 4). The organisational culture, influenced by both the external environment and the senior management team, had direct and indirect effects on medical leadership style, through appointment of individuals with a particular style repertoire, influence on style choice by leaders already within the organization, and effects on context. The context in which the style was being applied was important in its own right, and the sub-themes of 'time', 'task' and 'team' were derived. The individual's own style

repertoire and preference had a major influence, and these were in turn affected by factors such as age and experience. Finally the concept of 'style history' emerged, that is, switching from one style to another in the same scenario as a result of 'within-task' reflection as to the success and appropriateness of the style being used. 'Style history', could be said to exert influence on leadership style choice through its influence on the three other themes. Thus, it influences the choice of style by the individual but is downstream from other personal factors since it emerges only when the leader is already in a set scenario. When considering context, style history might relate to a perception that there are certain styles that are always required for a specific context, that is, 'this is how we usually deal with this scenario'. At the organisational level, style history could refer to an organisational 'way we do things round here', so for example, there may be an expectation that there is always a mentoring or coaching element in any new service development. Thus style history could be viewed as a crucible, bringing together the other three themes and from which the leadership style emerges.

The concept of leadership styles has been applied to medical leadership previously, mainly relating to the concept of task- versus people-orientated styles. McCue and colleagues (1986) examined leadership styles and effectiveness of junior doctors through both self-assessment and assessment by nurse colleagues, and found that people-orientated styles of leadership (encouraging and coaching styles) predominated over what they termed 'low-relationship' styles (delegating and structuring). In addition, nurses perceived doctors who exhibited people-orientated styles as being more effective. However, a more recent study of 232 medical leaders found that the predominant styles were 'dominant' and 'conscientiousness', where the former focused on control over tasks and the environment, directing others and achieving goals, while the latter related to independent working and a preference for working on tasks rather than dealing with people (Martin and Keogh, 2004). They concluded that medical leaders may need to 'stretch their interpersonal skills to gain the co-operation of others'.

Despite widespread awareness of Goleman's styles there are few published reports of their application in a research context. Greenfield (2007) described the use of all 6 styles by a nurse leader across a range of contexts. Using an ethnographic approach he demonstrated that the leader switched styles in response to changes in context, and also that combinations of styles used simultaneously worked well: as an example, the leader used a pace-setting style to set high standards in response to a critical incident, but coupled this with the coaching style to support team members in achieving these high standards. Mets and Galford (2009) assessed respondents' views of the importance of the six leadership styles in the practice of senior academics in anaesthetics: respondents ranked visionary, or authoritative, and coaching styles as most important, and commanding style as least important; the use of an academic group may explain the high ranking of the coaching style, which is the style least displayed in business settings (Goleman 2000). Thirdly, Gurley and Wilson (2011) explored leadership styles in a group of MBA students: over half of the group used the affiliative style as their dominant approach, with coercive and pace-setting next most frequent. Using simulated scenarios, students with the dominant affiliative style were found to perform less well than peers on financial goals but higher on employee morale. Repeated attempts at the simulation improved performance, supporting the proposition that non-dominant leadership styles can be developed with training.

There are to our knowledge no published reports of the use of Goleman's, or Singh and Jampel's, leadership style models in the setting of medical leadership. However, a large study of Goleman's styles in senior NHS leaders (a group which includes both medical leaders and professional managers) was recently conducted by Hay Group Consultancy, and is cited in the grey literature (Santry, 2011; The King's Fund, 2012). The study concluded that the pace-setting style predominated, a finding that is not confirmed in the present study. However, precise methodological details are not available to allow direct comparison. Similarly, there are no studies exploring contextual use of leadership styles in medical leadership. However the thematic map presented here has parallels with the theoretical contingency models of leadership but takes a broader view of factors affecting use of leadership styles, incorporating

external factors at the level of the organisation and the wider health and policy environment.

Strengths and limitations

This study used a mixed methods approach in order to increase validity (Mays and Pope, 2000). The questionnaire phase had the advantage of large sample size, but did not allow respondents to provide contextual detail. The semi-structured interviews were successful in generating rich descriptive data on context, but were themselves limited by small sample size. In addition two models of leadership styles were used, both incorporating a combination of consultative, team-oriented styles with didactic top-down approaches. There are some parallels across these two models, for example the democratic and affiliative styles in Goleman's model equate to some extent to the consensus manager style in the Singh and Jampel model, while the commanding and complete autocrat styles are also comparable. One limitation of the questionnaire approach is that it was based on self-reporting. However, similar results were obtained using the two leadership style models, and also using self-reporting and the quantitative interview analysis of leadership style use. Although some authors conclude that self-ratings can be unreliable (Xiragasar et al., 2005) a previous study examining the Goleman styles found a high level of correlation between self-reporting and third party assessments (Pennington, 2003).

Interviewees were selected through purposive sampling in order to obtain as varied a group as possible. A variety of patterns of leadership styles was seen, and the inductive analysis derived common themes, suggesting that further interviews would not have added to the analysis (Francis et al., 2010). In both quantitative and qualitative analysis of the interviews there was considerable subjectivity. In the quantitative analysis, some data extracts could have fitted with more than one leadership style and a judgment had to be made regarding the style that provided the best fit. Judgments also had to be made about whether a longer extract should be kept as a single code or subdivided, and about choice of codes and themes in the inductive analysis. One individual

conducted the analysis, ensuring consistency, although inter-rater comparisons would have been helpful in to ensure bias was minimized.

One final limitation is that the study did not attempt to link use of particular leadership styles with leader effectiveness. Thus the significance of the results is unclear, although in discussing their implications assumptions are made that data from non-medical contexts relating leadership style use and effectiveness can be extrapolated to the setting of medical leadership.

Implications for clinicians and policy makers

This study has implications at a number of levels. At the level of the individual leader, these results suggest that it would be useful to explore critically their own use of leadership styles to determine which styles are used preferentially and which less frequently. Once the leader is aware of their style pattern, they can, through reflective practice or targeted training, consider increasing the number of styles routinely used

At the organisational level awareness of individuals' leadership styles could be used to match projects to individuals, or to develop effective teams where the strengths and weaknesses of individual members are combined to strengthen the whole, as in Belbin's model of complementary personal characteristics (1981). In this context, a team could be designed that includes people with very different leadership styles, for example an affiliative chief executive, who would foster links and a team spirit, with a pace-setting deputy who ensures that targets are met. The concept of leadership styles may also be valuable in both assessing and developing organisational culture over time in response to changing organisational context and external environment.

At a wider level, the results of this study have implications for leadership development programmes and policy. There is substantial investment nationally in leadership training currently, with the aim of translating improvements in leadership into improved cost-effectiveness and quality of healthcare services. Currently the national leadership development initiatives focus on developing 'competencies': it would also be useful to incorporate training on leadership

styles. It would be useful to confirm and extend the findings of this study, in particular confirmation of the quantitative analysis of use of leadership styles, including third party ratings by junior, peer or senior colleagues; expansion of the qualitative analysis to provide further support for the thematic map of factors influencing leadership styles in medical leadership; and thirdly confirmation of a link between numbers of leadership styles / use of appropriate styles and leadership effectiveness in a medical leadership setting.

Conclusions

This study has demonstrated that medical leaders have a variety of patterns of use of leadership styles with no single style 'typology'. They also use variable numbers of preferred styles in their non-clinical leadership roles. The most frequently used styles were affiliative, democratic and authoritative; the commanding and coaching styles were used least frequently. Use of leadership styles was influenced by a range of factors, including external factors affecting the organisation within which the leader is operating, their own personal style preferences and wisdom, the activity being undertaken and the team with which the leader is working, and the individual or organisational experience or expectation of leadership style use in that setting.

Medical leaders who are able to expand and adapt their style based on analysis of the above factors will, it is felt, be more effective in meeting the diverse followership needs of both medical and non-medical colleagues. More effective, better led individuals within organisations will contribute to delivering the greatest possible improvements in healthcare provision across the wider NHS.

References

Adair J (1973). *Action-centred leadership*, McGraw-Hill, New York.

Arksey H, Knight PT (1999). *Interviewing for social scientists*, Sage Publications, Thousand Oaks, CA.

Belbin RM (1981). *Management Teams: Why they succeed or Fail*, Heinemann, Oxford.

Boyatzis RE (1998). *Transforming qualitative information. Thematic analysis and code development*. Sage Publications, Thousand Oaks, CA.

Chell E (2004). Critical incident technique. Chapter 5 in C Cassell & G Symon (Eds) *Essential Guide to Qualitative Methods in Organisational Research*. Sage Publications, Thousand Oaks, CA.

Darzi A 2008). High quality care for all: NHS next stage review final report. Department of Health, London. Available at: Http://www.official-documents.gov.uk/document/cm74/7432/7432.pdf (accessed 24 March 2014).

Dicicco-Bloom B, Crabtree BF (2006). The qualitative research interview. *Medical Education,* 40, pp314-321.

Francis JJ, Johnston M, Robertson C, et al (2010). What is an adequate sample size? Operationalising data saturation for theory-based studies. *Psychology and Health,* 25, pp1229-1245.

Francis R. Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry 2013. Available at: http://www.midstaffspublicinquiry.com/report (accessed 24 March 2014).

Greenfield D (2007). The enactment of dynamic leadership. *Leadership in health services*, 20, pp159-168.

Goleman D (2000). Leadership that gets results. *Harvard Business Review*. Harvard Business School, Boston, MA.

Guest G, MacQueen KM, Namey EE (2012). Introduction to applied thematic analysis. Chapter 1 in *Applied Thematic Analysis*. Sage Publications, Thousand Oaks, CA.

Gurley K, Wilson D (2011). Developing leadership skills in a virtual simulation: coaching the affiliative style leader. *J Instructional Pedagogies*, 5, pp1-15

Ham C (2003). Improving the performance of health services: the role of clinical leadership. *Lancet* 361, pp1978-80.

Hernandez M, Eberly MB, Avolio BJ, Johnson MD (2011). The loci and mechanisms of leadership: exploring a more comprehensive view of leadership theory. *The Leadership Quarterly*, 22, pp1165-1185.

Hersey P, Blanchard KH (1993). *Management of organisational behaviour: utilizing human resources*. 6th Ed. Prentice-Hall, New Jersey.

Horwitz IB, Horwitz SK, Daram P, et al (2008). Transformational, transactional, and passive-avoidant leadership characteristics of a surgical resident cohort: analysis using the multifactor leadership questionnaire and implications for improving surgical education curriculums. *J Surg Research*,148, pp49-59.

King N (2004). Using templates in the thematic analysis of text. Chapter 21 in C Cassell & G Symon (Eds) *Essential Guide to Qualitative Methods in Organisational Research*. Sage Publications, Thousand Oaks, CA.

Kumar RDC (2013). Leadership in healthcare. *Anaesthesia and Intensive Care Medicine*,14, pp39-41.

Lewin Kurt, Lippitt R, White RK (1939). Patterns of aggressive behavior in experimentally created 'social climates.' *J Social Psychology*, 10, pp 271-299.

Martin WF, Keogh TJ (2004). Managing medical groups: 21st century challenges and the impact of physician leadership styles. *J Med Pract Manag*, 20, pp102-6.

Mays N, Pope C (2000). Assessing quality in quantitative research. *BMJ*, 320, pp50-52

McClelland DC (1998). *Assessing competencies: use of behavioural interviews to assess competencies associated with executive success*. Mcber, Boston.

McCue JD, Magrinat G, Hansen CJ, Bailey RS (1986). Residents' leadership styles and effectiveness as perceived by nurses. *J Med Education*, 61, pp53-8.

Medical Leadership Competency Framework (2010). Available at: http://www.leadershipacademy.nhs.uk/wp-content/uploads/2012/11/nhsleadership-Leadership-Framework-Medical-Leadership-Competency-Framework-3rd-ed.pdf (accessed 24 March 2014).

Mets B, Galford JA (2009). Leadership and management of academic anesthesiology departments in the United States. *J Clin Anesthesia*, 21, pp83-93.

Northouse PG (2012). *Introduction to leadership: concepts and practice*. 2nd Ed. Sage Publications, Thousand Oaks, CA.

Palmer R, Cragg R, Wall D, Wilkie V (2008). Team and leadership styles of junior doctors. *Int J Clinical Leadership*, 16, pp131-5.

Pennington J (2003). Further lessons in leadership. *Management in Education*, 17, pp24-28.

Santry C (2011). ‘Resilient NHS managers lack required leadership skills, DH research says’. *Health Service Journal*, 6 July.

Schreuder JAH, Roelen CAM, Van Zweeden NF, et al (2011). Leadership effectiveness and recorded sickness absence among nursing staff: a cross-sectional pilot study. *J Nursing in Management*, 19, pp585-595.

Schwartz RW, Tumblin TF (2002). The power of servant leadership to transform health care organizations for the 21st-century economy. *Arch Surg*, 137, pp1419-27.

Slevin DP, Pinto JK (1991). Project leadership: understanding and consciously choosing your style. *Project Management Journal*, 22, pp39-47.

Singh A, Jampel G (2010). Leadership flexibility space. *J Management in Engineering*, 26, pp176-187.

Swanwick T, McKimm J (2011). What is clinical leadership ...and why is it important? *The Clinical Teacher*, 8, pp22-26.

Tannenbaum R, Schmidt WH (1973). How to choose a leadership pattern. *Harvard Business Review*. Harvard Business School, Boston.

The King’s Fund (2011). *The future of leadership and management in the NHS: no more heroes*. The King’s Fund, London.

The King’s Fund (2012). *Leadership and engagement for improvement in the NHS: together we can*. The King’s Fund, London.

Xiragasar S, Samuels ME, Stoskopf CH (2005). Physician leadership styles and effectiveness: an empirical study. *Medical Care Research and Review*, 62, pp720-740.

Table 1: Goleman's leadership styles (2000)

AFFILIATIVE: An affiliative leader promotes good relationships and communication within the group. She/he is interested in the personal welfare of her/his team members, is easy to get on with and spends time on teambuilding. She/he has a high level of trust in her/his team members and gives them great flexibility in how they do their jobs. She/he gives positive feedback frequently yet may be uncomfortable giving negative feedback and may try to avoid difficult confrontations. Some team members may feel that she/he should be more forceful and provide clearer direction to the team.
COACHING: A coaching leader is concerned with supporting the efforts of others on the team and developing their skills. She/he excels at delegating. She/he helps team members to identify their strengths, weaknesses and potential, is a good listener and uses open-ended questions to help others resolve work challenges. A coaching leader provides ongoing performance feedback and sees mistakes and underperformance as learning opportunities. However, the focus on individuals may limit the productivity of the team as a whole.
COMMANDING: A commanding leader provides clear direction and expects others to follow. She/he is comfortable making quick decisions with little input from others, and excels in a crisis. She/he does not hesitate to confront others when they are underperforming, yet will also reward those who are excelling in their work. She/he is less skilled at listening to others' ideas and some team members may feel demotivated and lose enthusiasm.
DEMOCRATIC: A democratic leader encourages participation and exchange of ideas from her/his team regarding the directions the team should take and what actions they should prioritise. When faced with a complex problem, she/he will elicit ideas from others, listen attentively and build consensus, but may put off making difficult decisions. Some team members may feel that she/he should "decide" more and "facilitate" less.
PACESETTING: A pacesetting leader "sets the pace". She/he sets high performance standards for herself/himself, leads by example and focuses on achieving results. Pacesetters expect others to be competent in their roles. If someone's performance is lagging, a pacesetting leader will reassign the job to someone she/he considers more competent. Some team members may feel that this person needs to be more sensitive and tolerant of other team members' views and working styles.
AUTHORITATIVE: An authoritative leader provides a clear direction and takes the team forward with shared goals. She/he is particularly effective when a team or service has run into problems. The authoritative leader motivates team members by making it clear to them how their work fits into a larger vision for the organisation and why what they do matters. She/he promotes commitment to the task and allows team members the freedom to innovate and experiment.

Table 2: characteristics of respondents to leadership style questionnaire

	Number	Percentage
Gender (n=76)		
Male	58	76
Age Range (n=77)		
30-35	1	1
36-40	5	6
41-45	9	12
46-50	24	31
51-55	22	29
56-60	9	12
>60	7	10
Clinical Specialty (n=78)		
Medical	26	33
Surgical	15	19
Paediatrics	7	9
Anaesthetics	11	14
Diagnostic	13	17
Professions allied to Medicine	3	4
Other	3	4
Leadership and Management Training (n=74)		
None	11	15
Brief in-house training	8	11
Formal Leadership Course (Trust)	35	47
Unaccredited external course	13	18
Accredited external course leading to professional or academic qualification	7	9

Table 3: third-party assessment of use of Goleman's leadership styles by six medical leaders from acute hospital trusts

	Affiliative	Coaching	Commanding	Democratic	Pace-setting	Authoritative
1	8	0	0	2	1	11
2	1	2	2	0	3	8
3	2	1	0	2	3	14
4	0	0	5	1	5	1
5	1	1	0	6	0	8
6	5	0	0	6	0	3
Totals	**17**	**5**	**7**	**17**	**12**	**45**
Rank order	**2**	**6**	**5**	**2**	**4**	**1**

Figure 1: Singh and Jampel's leadership flexibility space (2010)

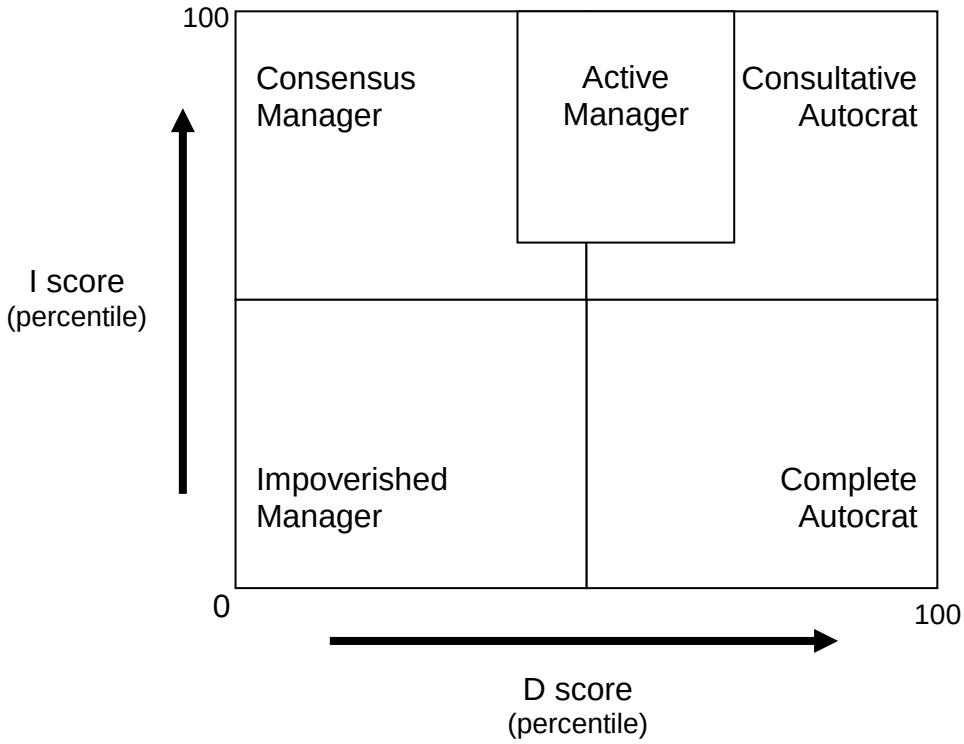

Figure 2: summated self-reported use of leadership styles of 78 medical leaders in acute hospital trusts in Yorkshire and Humber region (Goleman model)(n=78)

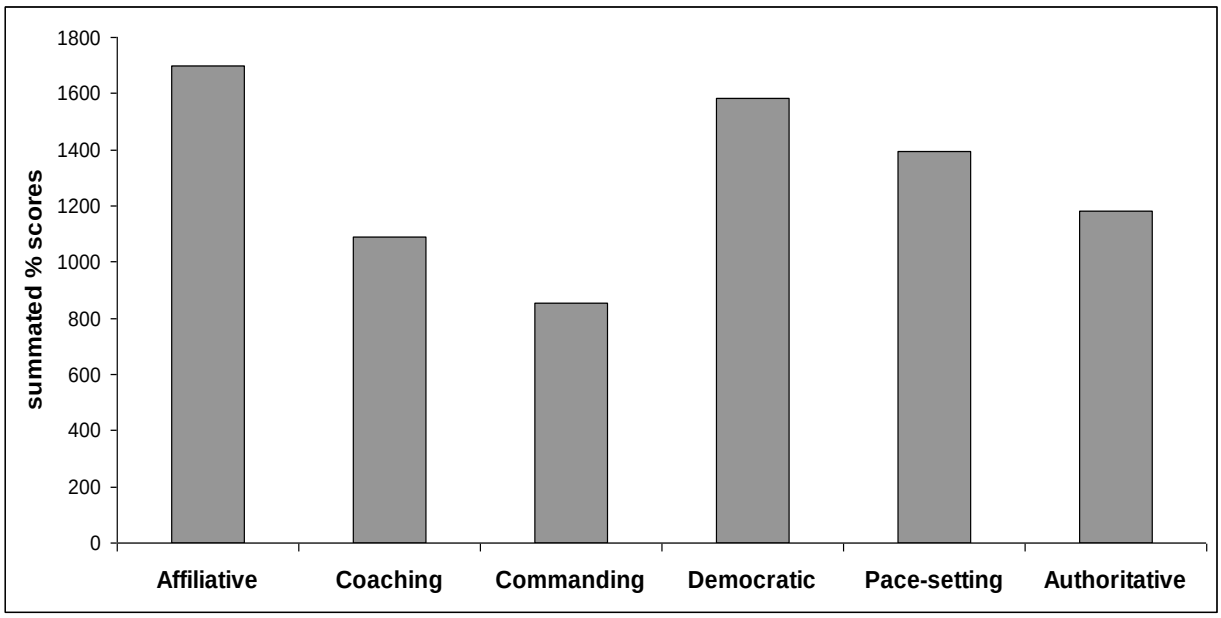

Figure 3: survey responses from senior medical leaders from hospital trusts in Yorkshire and Humber region (Singh & Jampel model)(n=78)

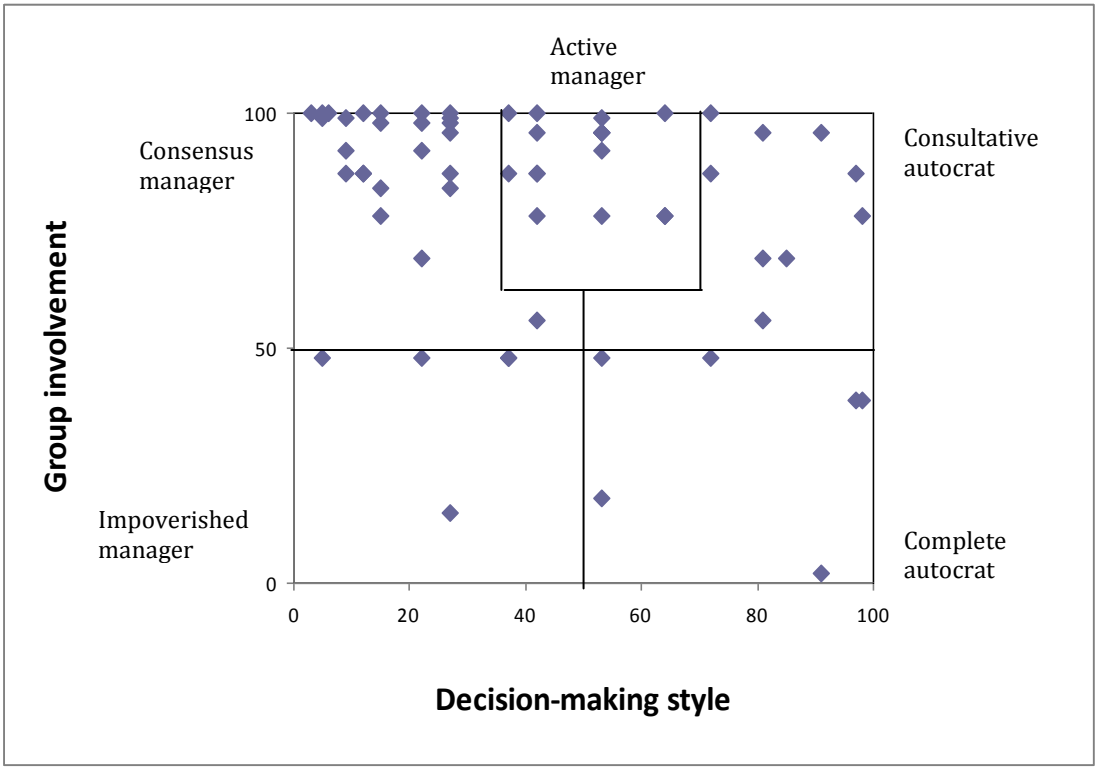

Figure 4: thematic map for use of leadership styles by senior medical leaders, from grounded theory analysis