

Portfolio: Volume 1

- Doctoral Thesis -

The Impact of Professional and Team Identification on the
Leadership Beliefs of Multi-Disciplinary Team (MDT) Clinicians

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ABSTRACT

Introduction and Aims - The term 'clinical leadership' has received widespread promotion in the NHS in recent years and encourages frontline clinicians to be involved in the leadership of services. Few research studies have explored the leadership beliefs of mental health clinicians. The current thesis aims to address this issue by examining the leadership beliefs of mental health clinicians working in MDTs. Applying prominent group identity theories, the association between the strength of professional / team identification and clinicians' leadership beliefs were examined. Researchers predicted that differences would emerge between professions in their beliefs about shared and distributed leadership.

Methodology - Two hundred and twenty nine healthcare clinicians working in MDTs across the East of England completed an online survey.

Results - No statistically significant differences emerged between professional groups in their beliefs about distributed or shared leadership. A significant positive association emerged between the strength of participants' professional identification and their agreement with shared leadership. This association did not reach the level of statistical significance when analyses were completed separately for each profession. However, the same trend emerged for all professional groups; participants who expressed the strongest level of professional identification reported the greatest agreement with shared leadership. The same association was demonstrated for team identification and participants' shared leadership beliefs. In line with the researchers' predictions, the level of threat participants experienced to their professional identities mediated the positive association between professional identification and team identification.

Conclusions - These findings highlight the potential important link between group identification and healthcare professionals' leadership beliefs. This link has been demonstrated in business and academic settings, but requires further investigation in health

settings. Implications for clinical practice are discussed, focussing on interventions that promote strong professional and team identifications in healthcare. Limitations of the study are presented, in addition to future areas of research.

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CHAPTER 1 - INTRODUCTION

1.1 Personal Interest in Leadership

During the 2015 UK general election campaign, party leaders frequently referred to the term ‘leadership’ and debated how they were the most appropriate candidate to lead the country into economic recovery. I welcomed the use of the term ‘leadership’ but was puzzled that this term did not encompass the relational nature of leadership processes in government, particularly since the previous government consisted of a coalition. I felt a sense of frustration in watching the highly publicised leaders’ debates on television. Simplistic versions of leader accounts prevailed; the contest as I perceived it, was largely being fought on the individual qualities and characteristics of David Cameron and Ed Miliband.

Watching the leaders’ debates however helped me to reconnect with my initial interest in researching leadership. I have always been fascinated by the subjectivity involved in defining the term and how people can form different views of what leadership is and how it looks in practice. Yet, this complexity was not conveyed through the language expressed in these debates. The assumption seemed to be that the voting public had a general understanding of what constitutes good leadership and simply needed to compare candidates to these criteria. Although this example comes from politics, it highlights my interest in moving beyond stereotypical assumptions of leadership to capture the richness of leadership views in healthcare and beyond.

My experiences of working in multi-disciplinary teams (MDTs) in mental health have enhanced my fascination with the topic and provided an insight into the practical applications of leadership. These experiences have been informative and uniquely different in each MDT. I have been a part of teams that operate with a clear leadership hierarchy, with decisions largely being made by key professionals or team managers. In contrast, I have observed services where all team members are encouraged to contribute in meetings and professional

hierarchies seem largely absent from the functioning of these services. Of course, I have also observed teams that appear largely devoid of leadership structures, with professions working in isolation from one another and the influence of team managers. These discrepant experiences have highlighted the complexity of leadership and team functioning. Additionally, these experiences have motivated me to explore the factors relevant to leadership functioning in MDTs, in the hope that this exploration would inform my clinical practices and the practices of other clinicians.

1.2 Leadership and UK Healthcare: Setting the Scene

The topic of leadership has been extensively researched in business settings to identify the factors relevant to increasing the effectiveness and financial productivity of organisations. Core principles from the private sector, such as financial accountability and cost efficiency, have been incorporated in the NHS in recent years (Broadbent & Laughlin, 1998; Cameron, 2011). These principles feature prominently in policies designed to improve patient care, promote cost efficiency and increase the accountability of health services to the public (Cameron, 2011). NHS initiatives specific to leadership have been viewed by some as attempts to decentralise influence and responsibility to frontline healthcare clinicians (Greener, Exworthy, Peckham, & Powell, 2009). This mantra compliments features of shared and distributed leadership that encourage clinicians to be involved in the development and transformation of services (NHS Leadership Academy, CLCF, 2011).

Despite perceived attempts to decentralise leadership responsibilities to frontline workers, there is limited research on the leadership beliefs and practices of healthcare clinicians. The paucity of research in this area is surprising since clinicians are likely to have a vital role in translating NHS policies into leadership practices. Certain clinicians may oppose key elements of shared and distributed leadership, thus acting as a barrier to decentralising influence and responsibility to healthcare professionals. This highlights the

need to complete research that explores the leadership beliefs of clinicians and to ascertain whether differences exist between professional groups in MDTs.

Group identity theories of leadership have been studied extensively in organisational psychology. This research has shown that the strength of individuals' identification with their teams influences their leadership beliefs and practices (Haslam, 2004). This creates the possibility that healthcare clinicians' leadership views could be influenced by their identifications with their professions and MDTs. Group identity theories have been largely untested in healthcare settings, particularly in the area of leadership. This offers an exciting opportunity to apply a group identification framework in exploring the leadership beliefs of mental health clinicians.

1.3 Overview of Thesis

The current thesis will explore the shared and distributed leadership beliefs of mental health professionals in MDTs through an online survey. In doing so, the association between professional identification / team identification and leadership beliefs will be examined.

Chapter 2 will provide an overview of the leadership literature, with particular attention paid to the evidence base for leadership models and their applications in healthcare. The literature review will also explore potential barriers to shared and distributed leadership related to professional group differences, status, power and gender. Towards the end of the review, group identity theories will be discussed and their relevance to leadership in healthcare will be outlined. The final section of Chapter 2 will state the main aims and hypotheses of the study.

Chapter 3 will provide a detailed account of the methodology used in the study. This will involve a descriptive account of the sample used, recruitment methods and primary outcome measures. The rationale for selecting a quantitative survey design will also be outlined.

Chapter 4 will document the main findings of the study. These findings will be presented in a linear sequence that addresses each of the study's hypotheses. The characteristics of the survey sample will also be provided.

Chapter 5 will discuss the main results of the study and relate key findings to wider research. The clinical implications of the study's findings will be discussed and recommendations will be provided. Lastly, limitations of the study will be outlined and future areas of research will be highlighted.

CHAPTER 2 - LITERATURE REVIEW

2:1 Search Strategies

The following literature review is based on information from a number of research studies, articles and books from the areas of leadership and group psychology. A number of search strategies were used to locate relevant information from these sources. The Chief Investigator used a number of databases including CINAHL, PsycINFO, Web of Science and Google Scholar. Individual journals relevant to the research area were also accessed e.g. Journal of Interprofessional Care, Journal of Organizational Behavior, and The Leadership Quarterly etc.

Search terms were chosen to limit the number of responses obtained from the database searches. These terms included 'leadership', 'leadership in healthcare', 'leadership effectiveness', 'multi-disciplinary teams', 'interprofessional collaboration', 'gender and leadership', 'group theories of leadership' and 'leadership in organisations.' Separate theories of leadership were accessed by including their names in the search terms e.g. shared leadership, transformational leadership, servant leadership etc. The literature search was not confined to recently published articles as a number of relevant leadership theories and group psychology theories were proposed in the 1960's and 1970's.

2.2 Defining Leadership

The topic of leadership represents a vast area of research across multiple areas and settings. Typing the term 'leadership' into a Google Scholar search engine yields approximately 2, 930, 000 results. Despite the popularity of leadership as a concept, there remains no widely accepted agreement on its definition. As Bolden (2004) stated:

Leadership is a complex construct open to subjective interpretation. Everyone has their own intuitive understanding of what leadership is, based on a mixture of experience and learning, which is difficult to capture in a succinct definition.
(Bolden, 2004, p. 4).

The subjectivity in defining the concept presents challenges in evaluating leadership research since it cannot be assumed that investigators are exploring the same construct (Gilmartin & D'Aunno, 2007; Podolny, Khurana & Hill-Popper, 2005). The broadness of leadership is reflected by the vast number of theories that exist in the literature and the multitude of methods developed to evaluate the concept. This has sparked a great deal of debate as to what leadership is and how it should be studied.

There have been a number of attempts to conceptualise the key themes commonly featured in contemporary leadership theories. Peter Northouse (1997) proposed four common themes in his review of the leadership literature. These themes included leadership as a process, involving influence, occurring in groups and related to the pursuit of goals (Northouse, 1997). Applying these themes, Northouse defined leadership as “a process whereby an individual influences a group of individuals to achieve a common goal” (Northouse, 1997, p. 3). This definition proposes that leadership develops through processes in groups but locates influence as residing with leaders or individuals (Bolden, 2004). Recent conceptions of leadership highlight the collective exchanges between individuals which influence the responses of team members (Carson, Tesluk & Marrone, 2007; Yukl, 2009). These conceptions argue that leadership can be influenced by multiple members of a group and not just individuals in positions of seniority or authority.

2:3 Clinical Leadership in the NHS

The term 'clinical leadership' has received widespread attention in the NHS over the last decade. Historically this term has referred to clinicians taking on senior management roles in healthcare settings. However, recent conceptions of clinical leadership advocate the need for frontline clinicians to be involved in the leadership of services (Edmonstone, 2008). This principle is an important driver behind the rise of clinical leadership in healthcare as clinicians are encouraged to actively demonstrate and develop their leadership skills (Swanwick & McKimm, 2011).

2.3.1 Defining Clinical Leadership

Although there is no standard definition of the term 'clinical leadership', a consensus is developing of the common features associated with the term (Edmonstone, 2009). Clinical leadership encourages clinicians to become a key part of setting direction and transforming services (Millward & Bryan, 2005). The term has also been summarised as 'leadership by clinicians of clinicians' (Edmonstone, 2009, p. 291). Definitions of clinical leadership typically advocate the need for clinicians at all levels of an organisation to be involved in the process (Crisp, 2001). This could be viewed as a departure from a top down organisational hierarchy that locates power and influence with senior managers (Hurley & Linsley, 2007).

Distributing leadership responsibilities compliment recent NHS initiatives that adopt a mantra of giving frontline clinicians increased influence and control over decisions (Currie & Lockett, 2011; DoH: Equity and Excellence, 2010). The origin of these initiatives could be linked to the proposed inverted power structure that operates in the NHS (Ham, 2003). Although commissioners exert influence by implementing clinical frameworks, clinicians typically have a degree of control in deciding the manner in which these frameworks are introduced in clinical practice (Siriwardena, 2006).

The NHS has produced a number of documents to promote clinical leadership. Two highly publicised documents are the Clinical Leadership Competency Framework (CLCF) and the Healthcare Leadership Model (NHS Leadership Academy, CLCF, 2011; NHS Leadership Academy, Healthcare Leadership Model, 2013). The CLCF lists five core leadership competencies and encourages clinicians to “become more actively involved in the planning, delivery and transformation of health services” (NHS, Leadership Academy, CLCF, 2011, p. 6). The Healthcare Leadership Model comprises nine leadership dimensions and aims to help “those who work in health and care to become better leaders”, irrespective of seniority (NHS Leadership Academy, Healthcare Leadership Model, 2013, p. 3).

2.3.2 A Critique of Clinical Leadership

Recent leadership initiatives in the NHS have not been met with approval from all academics and clinicians. Sceptics argue that the notion of distributing leadership responsibilities is merely a smokescreen and that influence resides with individuals placed at the top of NHS organisations (Hurley & Linsley, 2007). In addition, it has been questioned whether attempts to distribute influence to frontline clinicians can be reconciled with prominent initiatives such as Payment by Results and NICE guidance (Martin & Learmonth, 2012). These initiatives have been viewed by some as attempts from commissioners to increase their influence on the working practices of clinicians (Greener et al., 2009; Mollon, 2009). However, these policies have been welcomed by others as enhancing the accountability of NHS services and ensuring that patients receive evidence based care (Clark, 2011; Smith et al., 2005). These contrasting views highlight the challenges faced by senior NHS managers in balancing the empowerment of staff members with the need to ensure service accountability to the public.

Criticism has also been directed at the manner in which leadership is presented in NHS documents such as the CLCF and the Healthcare Leadership Model. These documents

adopt a competency-based model of leadership, viewing leadership as resulting from the display of desirable behaviours or competencies. It is argued however that competency models privilege individual accounts of leadership and pay little attention to the contextual factors that influence leadership processes (Crevani, Lindgren & Packendorff, 2010; Edmonstone; 2009; Yukl, 2009). Researchers have also queried whether the content of competency frameworks accurately captures the leadership concepts expressed by staff members (Bolden, 2004; Bolden & Gosling, 2006). Advocates of leadership competency-based models contend that this approach results in improved organisational performance (Sparrow, 2002; Winterton & Winterton, 1997).

2.4 The Historical Development of Leadership Theories

The current understanding of clinical leadership incorporates a number of elements from contemporary leadership theories. This link and its relevance to healthcare will be discussed in due course. However, it is important to first review the development of leadership theories since the 1960's as this will provide a context for the emergence of contemporary leadership theories in healthcare.

2.4.1 Trait Based Theories

During the first half of the 20th century it was proposed that leaders were born with a set of innate traits that made them highly suitable for positions of authority and influence (Day & Antonakis, 2011). These accounts came to be known as 'great man' theories of leadership and attempts were made to identify the personality traits that distinguished leaders from non-leaders (Jago, 1982). In a review of trait based studies, Ralph Stogdill (1974) concluded that traits such as intelligence, insight and self-confidence were highly prevalent in leaders. Although some researchers have reported that leaders tend to score higher than

average on measures of intelligence, sociability and motivation (Northouse, 1997), these outcomes have not been documented consistently in the literature.

2.4.2 Behaviour / Style Approaches

The inconsistency of findings in trait based studies led researchers to turn their attention to the leadership behaviours and styles of leaders (Gill, 2011). The basic principle of behaviour / style approaches is to focus on what leaders do as opposed to their underlying characteristics. A prominent style approach to leadership can be viewed in Blake and Mounton's (1964) Managerial Grid. This grid explains how leaders help their organisations achieve set goals and separates styles according to the degree to which leaders are concerned by production (task) and concerned by people (Gill, 2012). 'Team Management', a style marked by high concern for both the task and people, has been associated with the most effective style of leadership (Blake & McCause, 1991). It could be argued that aspects of a style approach are preserved in healthcare today as competency frameworks promote the importance of clinicians displaying a range of leadership behaviours. There is some evidence that environments where leaders are high in both task and person orientated elements are associated with the most effective outcomes (Burke et al., 2006). Despite these findings, style approaches have received criticism from several academics. It is argued that style approaches offer little practical assistance to leaders in helping them to identify situations where tasks behaviours are primarily needed or conversely, situations that require supportive behaviours (Yukl, 1994). The view that effective leadership styles will alter depending on the situation and environment resulted in a shift towards situational accounts of leadership.

2.4.3 Situational Approaches

A number of situational leadership approaches exist in the literature. The basic premise of situational approaches is that "different situations demand different styles of

leadership” (Northouse, 1997, p. 53). In a similar vein to Mounton’s Managerial Grid (1964), situational approaches propose that leadership involves both directive and supportive elements. Applying this idea, Hersey and Blanchard (1988) developed one of the most prominent situational leadership theories. Their theory proposes that the developmental level of subordinates (followers) exerts the greatest influence on what style of leadership is required in situations. They contend that as workers develop their skills and become more experienced, leaders are required to adapt their relational style from a directive approach to a coaching approach (Hersey & Blanchard, 1969). Hersey and Blanchard’s (1988) situational leadership theory shares some similarities with situational models proposed by Tannenbaum and Schmidt (1958) and Adair (1973). Tannenbaum and Schmidt’s (1958) model presents a continuum of leadership styles from autocratic to democratic. This model allows leaders to reduce the level of control they exercise over followers as workers develop their capabilities and levels of autonomy (Tannenbaum & Schmidt, 1958).

Situational leadership approaches provide leaders with a framework of when to apply different leadership styles. However, these approaches have received little empirical evaluation in the leadership literature (Northouse, 1997). The developmental aspects of situational approaches convey the importance of workers’ characteristics and levels of autonomy in the leadership functioning of teams. This highlights the role of those being led in the leadership process but this does not extend beyond a simple recognition of followers’ developmental needs.

2.4.4 Path-Goal Theory

Path-goal theory is based on the combined works of Evans (1970), House and Dessler (1974) and House and Mitchell (1975). The core features of path-goal theory are that ‘subordinates’ will be motivated if they have confidence in their abilities, expect their efforts will result in favourable outcomes and believe their work will be reinforced by payoffs

(House, 1996). The leader is required to apply a leadership style that meets workers' motivational needs. Leaders can increase the motivation of workers by increasing the number of payoffs or by removing potential obstacles (House & Mitchell, 1975). This theory proposes that leaders can display a number of behaviours (e.g. directive, supportive, participative and achievement orientated). However, the suitability of expressing particular types of behaviours will be dependent on the characteristics of workers and task related features (Schriesheim & Neider, 1996). Path-goal theory shares some similarities with situational leadership approaches as both propose the need for leaders to adapt their styles. However, the source of adaptation differs in these approaches. Path-goal theory highlights the importance of leaders displaying styles that enhance workers' motivation levels. In contrast, situational approaches stress the importance of leaders considering workers' developmental stages.

Path-goal theory offers a degree of practical assistance as it advises leaders to adopt specific leadership styles based on the nature of the work environment and the characteristics of the workforce (Gill, 2011). A participative style of leadership is advised for environments where workers require a high level of autonomy and involvement in decisions. This style of leadership is likely to be suited to a healthcare environment where teams are typically comprised of autonomous and highly skilled professional disciplines.

Empirical studies have found mixed results for the core assertion of path-goal theory that different leader styles will be positively associated with workers' satisfaction levels and the effectiveness of organisations (Gill, 2011). Another criticism of path-goal theory is directed at the assertion that leadership influence stems largely from individual leaders. This criticism is not unique to path-goal theory however and is directed against most situational and behaviour accounts of leadership.

2.5 Contemporary Leadership Theories

Leadership theories developed since the mid 1980's are often referred to as 'newer' or 'contemporary' leadership theories in the literature. These theories represent a significant departure from leader centric accounts of leadership that largely viewed followers as passive recipients (Meindl, 1995; Kean & Haycock-Stuart, 2011). A number of alternative theories have emerged that convey the relational and interpersonal elements of leadership (Avolio, Walumbwa & Weber, 2009b; Hollander, 2009). This section will critically explore a number of these contemporary leadership theories and discuss their relevance to clinical leadership in the NHS. The subsequent section will then evaluate the evidence base for these theories.

2.5.1 Transformational and Transactional Leadership Theories

Transformational leadership theories have been extensively researched in the leadership literature across a number of areas. The development of transformational theories has origins in the work of sociologist James MacGregor Burns who viewed leadership as a "relationship of mutual stimulation and elevation that converts followers into leaders" (Burns, 1978, p. 4). A core element of transformational leadership approaches is the ability of leaders to influence and inspire followers towards moralistic ends (Bass, 1999). These theories convey a reciprocal relationship as formal leaders and general workers can both inspire the team to display values and achieve long-term goals (Eberly, Johnson, Hernandez & Avolio, 2013). As Burns (1978) commented, transforming leadership occurs when "one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (Burns, 1978, p. 83).

Transformational theories are often contrasted with transactional leadership approaches. Transactional leadership approaches argue that leadership involves a process of formal exchange between leaders and followers. This form of leadership overlaps with behaviour / style approaches as leaders express specific behaviours to motivate workers to

achieve set targets (Eagly, Johannesen-Schmidt & Van Engen, 2003). Transactional leadership approaches use theoretical concepts from classical behaviourism as followers' motivations to achieve goals are believed to be contingent on the reinforcement of rewards or punishment from leaders. Transactional forms of leadership do not focus on the development of staff members outside of the formal relationship of exchange (Bass, 1990).

Bernard Bass (1985) developed the initial conception of the term 'transformational leadership.' Bass (1985) proposed that transformational, transactional and laissez-faire forms of leadership can exist on a single continuum. Bass (1985) outlined the importance of transformational leaders inspiring individuals to move beyond personal interests for the good of the organisation (Bolden, 2004). While both transformational and transactional forms of leadership involve the promotion of organisational goals, these approaches adopt different practices in motivating staff members to achieve these goals. Transformational forms of leadership are concerned with promoting values and aspirations to help motivate workers to release their full potential (Dobbs & Walker, 2010). These notions align with the current understanding of clinical leadership that encourages clinicians to take centre stage in influencing the direction of services.

The dichotomies often presented between transformational and transactional forms of leadership are unlikely to be as differentiated in practice. This statement is supported by research studies that have explored the leadership practices of managers and team leaders. A Meta-analysis conducted by Burke et al. (2006) found evidence of managers applying both transformational and transactional elements of leadership. Similar findings were documented by De Casterle, Willemse, Verschueren and Milisen (2008) when they evaluated nurse leaders' perceptions of a clinical leadership development programme. These studies not only provide support for the assertion that transformational and transactional forms of leadership can exist on the same continuum (Bass, 1995), but also that individuals in leadership positions tend to display practices linked to both approaches.

2.5.2 Servant Leadership Theory

The theory of 'servant leadership' has previously sparked a great deal of interest in public sector settings such as healthcare and education (Graham, 1991; Sendjaya, Sarros & Santora, 2008). This interest is not surprising as servant leadership compliments stereotypical notions in healthcare that emphasise the sacrificial elements of care provision.

The theory of servant leadership was first proposed by Robert Greenleaf (1970) who argued that a leader's priority should be to serve the interests of the organisation and team members (Van Dierendonck, 2011). Core principles of servant leadership have been developed in recent years to encourage leaders to take a holistic approach to work, to promote a sense of 'community' and to facilitate a collaborative approach to decision making (Greenleaf, Frick & Spears, 1996). Characteristics of a servant leader include listening skills, empathy, awareness and commitment (Spears, 2004). The theory of servant leadership involves leaders modelling these skills through a motivation to serve as opposed to the desire to lead. This contrasts with transformational theories of leadership that encourage individuals to take responsibility in leading services. This implies an active role in the leadership process which is not fully conveyed in servant leadership. The absence of inspirational and active elements within servant leadership could explain its current decline in popularity in healthcare settings.

Both transformational theories and servant leadership promote the moral dimensions of leadership and encourage clinicians to transform services for the benefit of patients. With the exception of recent developments in transformational leadership theories (Avolio et al., 2009b), the empirical support for transformational and servant forms of leadership are largely based on the outcomes of leader-follower interactions. This potentially undermines the influence of multiple team members as actively contributing to leadership outside the role of followership. The limitations in viewing leadership as the effects of leaders' values and actions have resulted in the rise of 'shared' and 'distributed' leadership approaches. These

approaches highlight the distinction between individual accounts of leadership and leadership as a relationally governed process.

2.5.3 Shared and Distributed Leadership Approaches

There are a number of difficulties in concisely defining the terms ‘shared’ and ‘distributed’ leadership. These difficulties arise as a result of two factors. Firstly, definitions of both concepts of leadership often include the words ‘shared’ and ‘distributed’ in their descriptions. Secondly, the terms ‘shared’ and ‘distributed’ are often used interchangeably in the literature. Carson and colleagues’ (2007) definition of shared leadership illustrates these points:

We define shared leadership as an emergent team property that results in the distribution of leadership influence across multiple team members...Shared leadership contrasts with the conventional paradigm (referred to as vertical leadership)...which emphasizes the role of the manager who is positioned hierarchically (Carson et al., 2007, p. 1218).

Based on Carson and colleagues’ (2007) definition, a shared leadership approach involves the collective influence of multiple team members but also refers to the downward distribution of leadership influence. Notions of collective practices and diffused hierarchical influence form the basis of shared leadership as developed by Pearce and Sims (2002) and Pearce and Conger (2003). These elements also feature prominently in definitions of distributed leadership that view leadership as an emergent phenomena resulting from the exchanges of multiple individuals (Gronn, 2002; Uhl-Bien, 2006). A core theme central to both approaches is the idea that leadership is not the responsibility of a single person (Bolden,

2011). Shared and distributed leadership approaches emanate from the work of Gibb (1954) who first highlighted the importance of group interactions in the emergence of leadership.

A number of distinctions between shared and distributed forms of leadership have been made in the literature. One of the key distinctions is that shared leadership does not necessarily result in distributed leadership. Spillane and Diamond (2007) highlighted that leadership could be shared among two leaders in a service who may hold divergent views of how leadership should be practiced. In this situation, leadership could be viewed as shared because influence resides in more than one person. This influence however is devoid of the collective voices of team members and does little to distribute leadership across the hierarchy. Conversely, leadership could be distributed to a frontline clinician but this influence could be largely restricted to one individual. These distinctions highlight the need to explore the nature in which leadership is distributed and shared in teams as opposed to merely stating these terms.

Principles of distributed and shared leadership feature heavily in the concept of clinical leadership in the NHS. The Clinical Leadership Competency Framework (CLCF) and the Healthcare Leadership Model encourage frontline clinicians to be involved in the leadership of services. This fundamental principle suggests that leadership should be the business of all clinicians, resulting in a distributed hierarchy and a culture of sharing responsibilities in healthcare teams.

2.5.4 Shared and Distributed Leadership Defined

Given the subtle distinctions between distributed and shared forms of leadership, the current researchers would like to clarify the manner in which these terms will be applied in this thesis. Shared leadership is defined as the emergence of leadership based on the collective influence of a number of team members. Distributed leadership is defined as the distribution of influence down a hierarchy resulting in frontline clinicians being involved in

the leadership of teams. It is important to define these concepts to avoid ambiguity and difficulties in evaluating empirical research (Avolio, Reichard, Hannha, Walumbwa & Chan, 2009a). Additionally, the definitions selected for this thesis encapsulate the main elements of shared and distributed leadership as promoted in NHS leadership documents.

This review has discussed the relevance of transformational, distributed and shared forms of leadership to the current understanding of clinical leadership. However, a review of the effectiveness of these theories / approaches is needed before statements can be made about the importance of researching clinical leadership in healthcare.

2.6 Effectiveness of Leadership Theories

Different variants of transformational and transactional leadership theories have been researched in the literature (Gilmartin & D'Unno, 2007). These theories will be grouped together under the broad categories of transformational leadership and transactional leadership. This will simplify the process of evaluating the evidence base for both forms of leadership. The same process will then be applied in evaluating the evidence base for shared and distributed approaches to leadership.

2.6.1 Evidence for Transformational Leadership and Transactional Leadership

Research has consistently demonstrated the positive effects of transformational leadership on a variety of outcomes including organisational performance (DeGroot, Kiker & Cross, 2000; Lowe, Kroeck & Sivasubramaniam, 1996), job satisfaction (Morrison, Jones & Fuller, 1997) and reduced burnout in staff members (Nielsen, Randall, Yarker & Brenner, 2008). Although the majority of this research has been completed in business settings, positive outcomes have also been documented in healthcare (Cummings et al., 2010; Vance & Larson, 2002; Weberg, 2010). A number of research studies have focussed on comparing leadership outcomes for both transformational and transactional leadership. The results of

these comparisons have been largely inconsistent, with Meta analyses in the general leadership literature providing support for both forms of leadership (Avolio et al., 2009a; Burke et al., 2006). Burke et al. (2006) completed a Meta-analysis of studies that examined the relationship between leader behaviour and team outcomes such as productivity and learning. Research studies predominantly from business journals comprised the basis for Burke and colleagues' (2006) selection of papers. In total, 50 empirical studies were featured in the review. These authors found that transformational leader behaviours were moderately associated with perceived team effectiveness, team productivity and team learning. However, it should be pointed out that a task focussed leadership style, indicative of transactional leadership, was also moderately related to perceived team effectiveness and productivity (Burk et al., 2006). This provides support for the effectiveness of both transformational and transactional leadership styles. However, the likelihood that few studies from Burke and colleagues' (2006) review originated from a healthcare environment limit the extent to which generalisations can be made outside of a business setting. In addition, Burke et al. (2006) drew attention to the limitations of their findings as only half of the studies featured in their review included reliability ratings for outcome measures. Several theoretical and methodological limitations have been apparent with a number of leadership Meta analyses (as highlighted by Avolio et al., 2009a). These limitations often relate to small sample sizes, difficulties reconciling different methodological approaches and limited theoretical testing of leadership theories.

In addressing limitations with previous research, Avolio and colleagues (2009a) completed a Meta-analysis of the effectiveness of leadership studies and only included research papers that tested causal hypotheses. Avolio and colleagues (2009a) separated studies into those that examined 'traditional' leadership theories and those that examined 'newer' leadership theories. Transactional leadership was classified as a 'traditional' theory, with transformational leadership classed as a 'newer' leadership theory. Multiple outcomes

were evaluated by the authors and these included cognitive, behavioural and affective elements related to leadership. In total, 134 studies were included in the analysis. The findings of the Meta review indicated a small but positive effect of leadership on a number of outcomes (Avolio et al., 2009a). Contrary to their prediction, the authors did not find a statistically significant difference between 'traditional' and 'newer' leadership theories. When the effects of leadership theories were evaluated by examining their impact on specific outcome areas (e.g. cognitive, affective and behavioural elements), significant differences emerged between the leadership categories (Avolio et al., 2009a). Studies that featured 'newer' forms of leadership documented significantly superior effects on affective and cognitive outcomes when compared with studies that included 'traditional' leadership theories (Avolio et al., 2009a). Conversely, leadership interventions based on 'traditional' theories reported a larger effect on behavioural outcomes when compared with interventions that incorporated 'newer' leadership theories (Avolio et al., 2009a). These findings suggest that 'traditional' and 'newer' leadership theories exert an influence on different aspects of team functioning. The theoretical distinctions between 'traditional' and 'newer' leadership theories offer some evidence for this view. 'Traditional theories', such as behaviour / style approaches and transactional leadership, are typically interested in how leaders influence the behaviour of followers. The specific nature of these approaches therefore is likely to result in superior behavioural outcomes since this is a key area of concern within 'traditional' leadership models. Following similar logic, it is argued that contemporary (newer) leadership theories are effective in influencing emotional and cognitive elements as core features of these theories include the promotion of aspirations and values (Avolio et al., 2009a).

While Avolio and colleagues' (2009a) review offers an intriguing link between the type of leadership theory and the nature of outcomes, the longitudinal impact of this link has been largely untested. The procedure of separating leadership theories into distinct camps is not without problems. Key distinctions exist between leadership theories classed under the

same broad umbrella. This review previously highlighted the differences between transformational theories of leadership and servant leadership. However, both of these theories are categorised as new / contemporary leadership theories. Investigating the effects of 'traditional and 'newer' leadership theories could potentially simplify the heterogeneity within both these terms. In addition, these broad categories do little to guide individuals on what leadership theories are likely to be most beneficial to their specific environments.

2.6.2 Leadership Effectiveness in Healthcare

The majority of leadership effectiveness studies have been completed in business settings, with considerably fewer reviews undertaken in healthcare settings. This is an important point as differences between these environments are likely to undermine the extent to which generalisations can be drawn from mainstream leadership reviews. In completing a review of leadership effectiveness in healthcare settings, Weberg (2010) examined the effect of transformational leadership on staff satisfaction and burnout. The majority of papers selected in the review used the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1995) to measure leadership behaviours. The MLQ assesses a number of behaviours linked to transformational, transactional and passive avoidant styles of leadership (Bass & Avolio, 1995). A number of measures of burnout were used in the studies featured in Weberg's (2010) review. The review found that transformational leadership styles in healthcare teams were associated with improved staff satisfaction and lower burnout levels when compared with other leadership styles (Weberg, 2010). Findings from three papers in the review demonstrated transformational leadership to be superior to transactional leadership in improving the satisfaction levels of staff (Weberg, 2010). These findings were replicated by Cummings et al. (2010) who completed a Meta-analysis of the leadership literature in healthcare. These researchers concluded that leadership styles related to transformational /

relational elements were associated with higher levels of well-being and staff satisfaction among nurses (Cummings et al., 2010).

A number of limitations however were apparent with these reviews. Firstly, only seven studies were included in Weberg's (2010) review and few of these originated from the UK. This emphasises the need to complete further research in the NHS before definitive statements are inferred about the effects of transformational leadership on staff outcomes. In addition, Cummings et al. (2010) acknowledged that few of the studies featured in their review included controls for confounding variables. It remains a possibility that additional factors to leadership style could have influenced the satisfaction levels and well-being of nursing staff in these studies.

Despite these limitations, a number of studies have accumulated that demonstrate the positive effects of transformational leadership on healthcare workers' emotional well-being. Nielsen et al. (2008) explored the longitudinal effects of transformational leadership on workers' psychological wellbeing through a survey design. Their findings documented an association between transformational leader behaviours and workers' psychological well-being (Nielsen et al., 2008). However, the same authors demonstrated that followers' perceptions of their work mediated this relationship (Nielsen et al., 2008). The findings of this study are interesting as they illustrate the importance of mediating factors in the relationship between leadership theories and staff outcomes. A number of mediating and moderating factors have been proposed in the literature but their impact is often absent in exploring the effectiveness of different leadership theories (Avolio et al., 2009a). Trust and value congruence between leaders and followers (Jung & Avolio, 2000), cohesiveness in teams (Jung & Sosik, 2002) and goal clarity (Nemanich & Keller, 2007) have all been proposed as moderating the relationship between leadership style and team performance.

Research on the effectiveness of transformational leadership is notable for its evaluation of the influence of leader behaviours on followers' characteristics and well-being.

A great proportion of this research is restricted to staff outcomes and does not address the issue of whether different forms of leadership are associated with improved patient outcomes. The evaluation of distributed and shared forms of leadership represents an attempt to move beyond mere leader evaluations and explore the effects of leadership on patient outcomes.

2.6.3 Evidence for shared and distributed forms of leadership

Evidence is beginning to emerge that highlights the benefits of incorporating shared and distributed leadership models in healthcare. Fitzgerald and colleagues reviewed the impact of distributed leadership patterns in NHS organisations (Fitzgerald, Ferlie, McGivern & Buchanan, 2013). The researchers compiled evidence from ten hospital teams that provided different forms of medical care e.g. maternity, diabetes and cancer care. The researchers compared the outcome data from these teams with national target indicators, in addition to observing changes in the development of these teams over time (Fitzgerald et al., 2013). Criteria were developed by Fitzgerald and colleagues (2013) to classify teams into three distinct groups: those showing low progress, medium progress and substantial progress. Coding criteria were also established to evaluate whether teams were incorporating key principles of distributed leadership in their working practices. The findings of the study supported the researchers' hypotheses as distributed leadership patterns were associated with improved service outcomes and an increase in the effectiveness of teams as perceived by workers (Fitzgerald et al., 2013). In addition, Fitzgerald and colleagues (2013) found that effective leadership was needed across all levels of an organisation and not simply at the level of frontline clinicians. This suggests that distributed leadership should be applied in a multi-tiered manner as opposed to simply devolving all leadership influence to frontline staff members (Fitzgerald et al., 2013). Given the inter-changeability of the terms 'distributed' and 'shared' leadership, it should be pointed out that Fitzgerald and colleagues (2013) were examining features connected to both forms of leadership. Their study provides promising

findings on the benefits of distributed and shared leadership patterns in NHS healthcare teams. Further research is needed to strengthen this link and examine possible mediating factors in the relationship between shared / distributed leadership and service outcomes.

There are notable gaps in the healthcare literature with respect to ascertaining the effectiveness of shared and distributed forms of leadership. However, research studies in healthcare settings have consistently demonstrated an association between collaborative working practices between professionals (e.g. shared decision making) and improved service outcomes (Gilmartin & D'Aunno, 2007; Greenwell, 1995; West et al., 2003). This research could be viewed as providing indirect evidence for the potential benefits of shared leadership in teams.

2.7 Barriers to Implementing Shared and Distributed Leadership

The leadership beliefs of healthcare clinicians have scarcely been researched in the literature. If clinicians oppose key elements of shared and distributed leadership, this could prevent these practices from developing in healthcare teams. Exploring the leadership attitudes and practices of multi-disciplinary team (MDT) professionals is particularly relevant as this environment features a number of professional groups who are encouraged to work collaboratively. Encouraging a climate of shared and distributed leadership practices in MDTs is unlikely to be straightforward as a result of issues around professional diversity, status, power and gender. This review will explore these areas and their potential effects on the implementation of shared and distributed leadership in healthcare teams. The review will then turn attention to the issue of professional identification as viewed through the lens of social identity theory (SIT) and self-categorisation theory (SCT).

2.7.1 Attitudes, Values and Practices of Professional Groups

Research studies in MDT settings have identified differences between professional groups in relation to their values, perceived roles and views on interprofessional working. Regarding attitudes and working styles, it has been suggested that psychiatrists generally work in a more directive manner and view leadership as a prominent part of their role in teams (Lieberman, Hilty, Drake & Tsang, 2001). This finding could be linked to the high level of clinical responsibilities psychiatrists have and the aspects of their training that encourages them to adopt influential positions in teams (Rosen & Callaly, 2005). In contrast, Cohen (2003) found that an integrative approach, reflecting principles of collaborative working and shared decision making is more typical of the perspectives held by allied health professionals. These differences may link to the training and socialisation processes involved in becoming members of distinct professional groups (Apker & Eggly 2004; Callan et al., 2007). The attitudes of prequalification students undertaking various training courses provides some evidence for this view. Park et al. (2013) surveyed a number of social work, medical and nursing students about their attitudes towards interprofessional working. Differences among these groups emerged in their findings. Social work and nursing students reported the most positive attitudes towards interprofessional working (Park et al., 2013). However, medical students' attitudes towards joint working were also found to be positive. Consistent with previous research documenting the preferred role of medics in MDTs, medical students expressed attitudes that affirmed the importance of taking a prominent leader role (Park et al., 2013). The relatively small sample size in this study limits the generalisations that can be made about the attitudes of pre-qualification students from various professions. In addition, it cannot be assumed that the same findings would necessarily cross over to qualified professionals.

Exploring the attitudes and experiences of qualified professionals reveals mixed results. Nugus, Greenfield, Travaglia, Westbrook and Braithwaite (2010) explored

interprofessional relations between MDT clinicians through the use of semi-structured interviews, focus groups and observations. Their findings showed that some professionals viewed their opportunities to contribute in teams as minimal and restricted by the influence of medics (Nugus et al., 2010). Similar findings were documented by Atwal and Caldwell (2005) in their study that examined the interactions between professionals in MDT discharge meetings. These authors found considerably higher levels of input from psychiatrists when compared with social workers and other professions (Atwal & Caldwell, 2005).

The findings of these studies imply that MDTs may not be functioning in a manner that would promote principles of shared and distributed leadership. This suggestion however is tempered by the limitations inherent in the aforementioned studies. Atwal and Caldwell (2005) evaluated only one area of collaborative working in their study and it is possible that other areas of shared decision making were missed. To balance the evidence, a number of other studies have reported effective joint working and shared decision making in teams. Gair and Hartery (2001) interviewed professionals and observed team meetings in elderly assessment units. Their findings showed a high level of trust and collaboration in teams featured in the study (Gair & Hartery, 2001). The same study also reported high levels of collaboration from medics as demonstrated by their tendency to seek opinions from fellow team members in making important decisions (Gair & Hartery, 2001). Comparable results have been demonstrated in a number of other studies completed in MDTs (B. Brown, Crawford & Darongkamas, 2000; Hudson, 2002; Robinson & Cottrell, 2005).

In addition to the proposed differences in professional values and attitudes to interprofessional collaboration, it has been suggested that professional groups operate from different epistemological positions and have unique ways of viewing the world (Clark, 1997). Within the literature, it is suggested that medics largely hold a positivist epistemological stance and are interested in furthering scientific practice by examining cause and effect relationships (Bloom, 1989). In contrast, social workers and nurses are believed to place

greater importance on humanistic and socio-ecological modes of enquiry (Bloom, 1989; Mizrahi & Abramson, 1985). These epistemological stances are likely to influence professionals' views on what leadership is and how it should be studied. Certain professionals therefore could view leadership as the result of individuals displaying desirable behaviours, whereas other professionals may view leadership as a relational process influenced by social exchanges in MDTs. It is important to mention that professional group membership will not necessarily confine an individual to a particular epistemological stance since there is likely to be variation within professions. In addition, the functioning of teams and professionals' experiences in these settings are likely to influence their beliefs about leadership.

2.7.2 Status Differences between MDT Professionals

The vast heterogeneity found in the functioning of MDTs has prompted the search for factors that could help explain these differences. Concepts such as trust and psychological openness have emerged as key predictive elements in the functioning of teams (Hobman & Bordia, 2006; Nembhard & Edmondson, 2006). Nembhard and Edmonson (2006) explored factors that promote collaborative working in healthcare teams when status differences are apparent between professionals. The authors surveyed MDT members across a number of neonatal services and received 1140 responses from participants in total. Their survey explored status differences between team members, psychological safety and the extent to which team leaders were perceived as inclusive. Team members who perceived their status as high expressed significantly higher levels of psychological safety when compared with team members who perceived their status as low. A number of additional findings also emerged from the study. Professionals who reported a high level of psychological safety were more likely to participate in team affairs when compared to professionals who reported a low level of psychological safety (Nembhard & Edmonson, 2006). Nembhard and

Edmonson's (2006) study has important implications for the adoption of shared leadership in MDTs. Their findings suggest that professionals who perceive themselves as having low status in teams are unlikely to participate in team affairs. It is improbable that a culture of shared leadership will develop in teams when there are overt status differences between professionals and an absence of team members who encourage multiple perspectives.

Nembhard and Edmonson's (2006) study was confined to neonatal teams and this could potentially limit the extent to which generalisations can be made about different health settings. However, a number of additional studies have also identified perceived status differences between distinct professional groups (Baxter & Brumfitt, 2008; Nugus et al., 2010). Although much of this research is qualitative and hence sample sizes are understandably modest, the accumulation of research in this area suggests that barriers are likely to exist in encouraging shared and distributed leadership in healthcare teams.

2.7.3 The Influence of Power

The concept of power tends to evoke a number of connotations such as authority, influence and control. Nugus et al. (2010) discuss the concept of power and differentiate between two forms: 'competitive' and 'collaborative' power. Competitive power refers to the unequal dominance of one person or a group over others, whereas collaborative power is related to co-operative relational exchanges that promote the interests of the wider group (Nugus et al., 2010). These definitions overlap with notions of hierarchical and distributed leadership. Influence and power stem from positional authority in the first form of leadership.

MDTs were developed to promote collaborative working practices, enhance communication between professionals and encourage the sharing of knowledge across professional boundaries (Housley, 2003). It has been argued however that the creation of MDTs have resulted in professional groups engaging in competitive practices (Currie, 2010).

These competitive practices are likely to affirm boundaries between professional groups and maintain power differentials in healthcare teams (Currie, 2010). Power differences between professional groups are inextricably linked to gender since allied health professions and psychiatric nurses are typically comprised of a significantly greater proportion of female workers.

2.7.4 Gender and Leadership

Research has consistently documented differences between the leadership preferences of men and women (Alimo-Metcalfe, 1995; Appelbaum & Audet, 2003; Rosener, 1990). This research has shown that women tend to favour styles associated with transformational forms of leadership such as placing a high emphasis on values and teamwork (Leggat, 2007; Rosener, 1990). In contrast, men tend to value features associated with stereotypical societal notions of leadership such as charisma, organisation and decisiveness (Collinson & Hearn, 1996). This differentiation is slightly misleading since similarities between the leadership preferences of men and women have also been reported. Barker (2000) demonstrated that women and men in NHS executive positions equally valued 'self-reflection' as important in leading services. However, it is difficult to generalise the findings of Barker's (2000) study to frontline clinicians as all of the research participants held senior positions. In addition, much of the research exploring the leadership constructs of men and women has been completed in non-healthcare settings.

The uneven proportion of men and women typically found in many healthcare professions could influence the leadership constructs of clinicians in this environment. Healthcare professions are likely to attract a high number of individuals who value interpersonal and ethical leadership qualities since these elements are inextricably associated with patient-centred care. This feature, combined with the trend for MDTs to be comprised of a greater number of female clinicians, potentially fosters an environment where

transformational and shared features of leadership can thrive. This prediction however has received little validation in the literature. A survey study by Pinnington (2011) that examined the leadership perspectives of workers in the public and private sector found charisma to be the most valued leadership quality in both domains. Pinnington's (2011) findings suggest that 'great man' accounts of leadership could still be a prevalent force in public sector domains.

Stereotypical notions of leadership that assimilate masculine traits with leadership qualities are likely to be difficult to shift, even in a healthcare environment. Although women undoubtedly display leadership qualities in organisations, these qualities are unlikely to be afforded leadership status unless they are congruent with stereotypical masculine notions of leadership (Fletcher, 2004). This creates the possibility that features associated with shared leadership will not be recognised as leadership but viewed as feminine characteristics linked to societal perceptions of women fulfilling 'caring' and 'nurturing' roles (Scandura & Williams, 2004). In an overall sense, research on gender suggests that principles of shared leadership are unlikely to be implemented in practice unless dominant societal norms of leadership are challenged.

2.7.5 Team Functioning / Team Processes

The impact of team functioning on the effectiveness of teams and patient outcomes has been extensively researched in healthcare settings (Lemieux-Charles & McGuire, 2006). This research has identified a number of team processes that influence a wide range of organisational outcomes (Ferlie & Shortell, 2001; Heinemann, & Zeiss, 2002). These team processes include factors such as leadership, communication, decision-making, participation, conflict and co-operation. In relation to leadership, team processes / team functioning have been associated with clear service objectives, high levels of participation in teams and support for innovation (Tannenbaum, Salas, & Cannon-Bowers, 1996). Thylefors, Persson &

Hellstrom (2005) examined the functioning of 30 Swedish healthcare teams and found that team climate was positively associated with staff satisfaction levels, goal consensus and sharing tasks between team members.

Although these studies do not explicitly focus on the topic of leadership, they demonstrate the important link between the environment of healthcare teams and elements related to leadership functioning such as innovation, developing collective goals and sharing responsibilities. In doing so, these studies highlight the likely reciprocal nature of team functioning and leadership. This review has highlighted the importance of professional group membership, gender and power in influencing the leadership beliefs of healthcare professionals. The environment and functioning of MDTs are factors that are also likely to influence the leadership beliefs of healthcare professionals. This could have important implications for shared leadership since healthcare professionals' views could be influenced by the manner in which leadership is shared in their MDTs and their appraisals of the effectiveness of this form of leadership. While these factors (team environment / team processes) warrant further investigation, they have not been investigated in the current thesis. Their exclusion is not intended to negate the importance of these factors, but rather represents a pragmatic decision to focus on leadership beliefs through the lens of group identity theories.

2.8 Group Identity Theories of Leadership

Ascertaining the influence of gender, power, status and interprofessional differences on the leadership functioning of MDTs provides important information about the likelihood of shared leadership being adopted in practice. The origin and specific functioning of each MDT is likely to be unique and influenced by a number of contextual, political and environmental factors. This added complexity suggests that the effects of gender, power and interprofessional differences will not be homogeneous across teams. Although this suggests the need to analyse these factors across individual units (e.g. within each MDT), such a

method could potentially provide little information about the general group processes that occur in teams. Group identity theories of leadership provide a means to address this issue as these theories propose a number of important processes in shaping the group identifications of team members. These theories have been researched extensively in business settings but have received little attention in healthcare. This section of the review will document two key group identity theories, evaluate their evidence and lastly, explain their relevance in exploring leadership in healthcare teams.

2.8.1 Social Identity Theory and Self-Categorisation Theory

Two main and complimentary group identity theories have been proposed as influencing leadership beliefs and practices in teams: social identity theory (SIT) and self categorisation theory (SCT). SIT proposes that people develop a group identity based on a collective set of shared norms, beliefs, attitudes and behaviours which results in people perceiving their own group characteristics in favourable terms and differentiating themselves from other groups (Tajfel & Turner, 1979). Tajfel (1972) defined social identity as:

The individual's knowledge that he (sic) belongs to certain social groups together with some emotional and value significance to him (sic) of this group membership (Tajfel, 1972, p.292).

The emotional and value significance of group membership are crucial components of SIT as they help group members feel a sense of emotional well-being and enhance self-esteem (Haslam, 2003). Social identity differs from personal identity as group identities emerge from feeling a belongingness to groups, whereas individual identity is related to differentiation from others (Haslam, 2003). Members of a group will seek to differentiate themselves from other groups as this promotes self-esteem and a positive in-group identity

(Turner, 1975). The motivation behind intergroup differentiation has also been linked to reducing subjective uncertainty during times of threat or transition (Hogg, 2000).

Self-categorisation theory (SCT) built upon the foundations laid by SIT. SCT provides an explanation of the processes that influence whether people define themselves through individual terms or through group membership (Turner, 1985). A key process in SCT is referred to as 'self-categorisation.' Self-categorisations are cognitive representations held by people which help define their identities (Turner, 1985). SCT states that individuals can either self-categorise according to their own distinct personal identities or according to any number of shared social identities (Hogg, 2001). Importantly, this process is influenced by a number of contextual and situational factors (Hogg, 2001). The theory states that the likelihood of an individual categorising herself / himself with a particular social identity relates to the extent that the group identity is congruent with features of their individual identity (Haslam, Oakes & Turner, 1996). Therefore, group membership will only be activated when individuals feel there is a relevance to belonging to a group and this membership is in accordance with their values. For example, the identity of belonging to a particular gender will be activated in situations where the person feels this membership is salient and accords with particular values.

Taken together, the two theories propose that when individuals identify strongly with a group, this results in prototypical behaviours and attitudes being regarded as representative of both the self and the group. This process is referred to as depersonalisation as the attitudes and behaviours of individuals becomes highly concordant with the developed norms and values of the group (Hogg & Abrams, 1990). When group membership is strong and salient, this results in individuals thinking and acting in a manner that is highly congruent with the norms of the group.

2.8.2 Social Identity and Leadership

The Social Identity Model of Leadership (SIMOL) has been tested extensively in organisational settings. The central hypothesis of SIMOL is that when individuals express a strong identification with a group and this membership is salient, leadership beliefs and perceptions are highly influenced by the norms of the group (van Kippenberg & Hogg, 2003). This prediction has been tested in exploring the association between the strength of group members' identification and leader prototypicality. Hains, Hogg and Duck (1997) completed a laboratory study that examined the leadership perceptions and evaluations of new groups formed on the basis of attitude congruence. Participants in the study were asked to form small group discussions chaired by a leader. Participants were informed of whether the leader was prototypical or non prototypical of their group norm, in addition to whether the leader was congruent or incongruent with stereotypical schemas of leadership. The researchers manipulated group salience, group prototypicality and leader schema congruence within each of the groups. Group identification and perceived leadership effectiveness were also measured. The findings of the study provided support for the researchers' main hypotheses as participants who reported a strong group identification were significantly more likely to evaluate leaders as prototypical of this group and perceive them as effective (Hains et al., 1997). The same researchers reported that schema leadership congruence of leaders, the extent to which leaders were representative of societal leadership norms, became less important in determining their perceived effectiveness as the strength of group members' identification increased.

The core assertion of SIMOL has been demonstrated in a number of experimental studies featuring large sample sizes and validated measures (please refer to Hains et al., 1997; Duck & Fielding, 1999; Platow & van Knippenberg, 1999). The model asserts that leaders are likely to be perceived as more prototypical and effective when group members identify strongly with the group and experience membership as salient. The model also offers an

insight into additional leadership processes. Social identity research has highlighted the importance of contextual factors in influencing team members' strength of identification and leadership evaluations (Hogg, 2001). During periods where organisations are unsettled or in transition, individuals are more likely to identify strongly with clearly defined groups as a means to reduce feelings of uncertainty (Jetten, Hogg & Mullin, 2000; Hogg, 2001). This clearly has implications for healthcare since MDTs are comprised of a number of distinct professional groups and service changes / restructures frequently occur in the NHS.

2.8.3 SIT and SCT: Implications for Healthcare

SIT and SCT offer a theoretical framework to explore potential differences between the leadership views of distinct professional groups. Although there is limited research on the leadership beliefs of MDT professionals, studies completed in healthcare settings suggest that differences are likely to exist between professions in relation to their group norms. The core principles of group identity formation suggest that through processes of social attraction and intergroup differentiation, professional groups in MDTs will develop their own prototypical norms. These norms are likely to influence the attitudes and practices of professionals in these groups, particularly if professional membership is salient and clinicians identify strongly with their professions. In reference to shared and distributed leadership, prototypical norms apparent for professional groups could be congruent with these features of leadership or conversely, be diametrically opposed. Clinicians from different professional groups are therefore likely to hold diverse views on shared and distributed leadership.

A strength of both SIT and SCT is in their flexibility to account for group identification processes across a range of settings and contexts. For example, SCT contends that individuals can hold a number of group identities simultaneously and the activation of these identities are based on situational and contextual cues (Tajfel & Turner, 1986). This is an important point from a healthcare perspective as it is possible for clinicians to express a

strong identification with their professions and their MDTs. The notion that professionals can report strong dual identifications has received support from a number of qualitative studies (Baxter & Brumfitt, 2008; Swann, Kwan, Polzer & Milton, 2003). From a social identity perspective, this finding complicates the evaluation of clinicians' leadership beliefs since these beliefs are likely to be influenced by both professional and team identification. In situations where clinicians' professional and team norms are in alignment, this should result in consistent beliefs about shared and distributed leadership. However, it is also possible that clinicians' professional and team norms related to leadership will contradict. On these occasions, SIT and SCT predicts that contextual elements will influence the salience of these group identities. During times of perceived threat to services (e.g. cutbacks and re-organisations), profession is likely to become a more salient group than team membership since clinicians will look to reduce the uncertainty caused by contextual changes. Perceived threats to individual professions could result in numerous professional groups staking their own claim to be at the forefront of leadership (Onyett, 2012), thus undermining key principles of a shared and distributed leadership.

SIT and SCT offer an exciting theoretical framework to explore the association between clinicians' group identifications and leadership beliefs. However, a number of limitations with the application of this framework in healthcare should be highlighted. Firstly, SIT and SCT have received little empirical testing in the domain of healthcare. Secondly, empirical testing of these theories almost exclusively focuses on the dyadic relationship between leaders and followers. Since shared and distributed leadership dissolves this distinction, research is needed to explore the association between group identification and the leadership beliefs of frontline clinicians.

2.8.4 The Evidence for SIT and SCT in Healthcare

The limited group identification research that exists in healthcare has not focussed directly on leadership but on other variables such as team functioning and career development. Mitchell, Parker and Giles (2011) explored the moderating influence of team identification on the relationship between team diversity and perceived team effectiveness. They surveyed a number of clinicians and team leaders in MDTs in Australia. The authors found a positive relationship between the strength of clinicians' team identification and perceived team effectiveness (Mitchell et al., 2011). In addition, they demonstrated that interprofessional openness (i.e. willingness to undertake joint working) in clinicians was positively correlated with team identification and negatively correlated with threat to professional identity (Mitchell et al., 2011). Mitchell and colleagues' (2011) findings suggest that the strength of clinicians' identification with their teams is positively associated with favourable attitudes to collective working practices. Their findings also demonstrate the likely detrimental effects to shared team practices should clinicians feel their professional identities are under threat. Further research is needed to explore this link more definitively as Mitchell and colleagues' (2011) study did not control for a number of variables that could influence clinicians' identification with their teams and attitudes towards inter professional working. More specifically, the authors did not account for participants' type of profession, number of years working in the team or the duration of time qualified.

The majority of studies in healthcare exploring professional and team identification have featured qualitative designs. These studies have not empirically tested the association between group identification and team functioning but have provided useful information about the processes involved in identity development. A number of these studies have highlighted the fluid nature of professional identification and the manner in which context can influence professionals' perceptions of their identities (Crawford, Brown & Majomi, 2008; Hotho, 2008; Sims, 2011).

Overall, studies exploring the effects of group identification in MDTs have demonstrated encouraging evidence for elements of SIT and SCT. This observation, in combination with the need to explore healthcare clinicians' beliefs about shared and distributed leadership, forms the main rationale for the current study.

2.9 Aims of the Study and Research Hypotheses

This thesis aims to explore the leadership beliefs of mental health clinicians working in MDTs. This will allow the current researchers to examine potential differences between professional groups in their beliefs about shared and distributed leadership. As gender distinctions have been frequently documented in the literature, the leadership beliefs of men and women will also be explored. Attention will then turn to the effects of professional identification and team identification on the leadership beliefs of distinct professional groups. Lastly, the effects of perceived threat to professional identity will be explored on the association between professional identification and team identification.

A number of research hypotheses are proposed, based on the leadership and group identity literature. They are written in the form of alternative hypotheses and are as follows:

1. Statistically significant differences will emerge between professions in their beliefs about shared and distributed leadership. In comparison with nurses and psychiatrists, allied health professionals will report significantly higher scores in the 'Hierarchical Thinking Dimension' of the Leadership Attitudes and Beliefs Scale (LABS) and significantly lower scores in the 'Systemic Thinking Dimension.' In short, allied health professionals will report greater levels of agreement with shared and distributed leadership in comparison with clinicians in other professions.

2. In comparison with men, women will report statistically significantly higher scores in the Hierarchical Thinking Dimension of the LABS and lower scores in the Systemic Thinking Dimension i.e. women will report greater levels of agreement with shared and distributed leadership in comparison with men.

3. a) There will be a statistically significant association between the strength of participants' professional identification and their LABS questionnaire scores. The exact nature of this association will be influenced by the professional group participants belong to. These associations are described in hypotheses 3b and 3c.

b) Allied health professionals who express a strong identification with their professions will report higher scores in the Hierarchical Thinking Dimension of the LABS and lower scores in the Systemic Thinking Dimension, when compared with allied health professionals who express a weaker professional identification. This prediction is based on the assertion that allied health professionals who identify strongly with their professions are more likely to report professional norms that are congruent with features of shared and distributed leadership i.e. norms related to collaborative decision making and sharing responsibilities in teams.

c) Psychiatrists who express a strong professional identification will report lower scores in the Hierarchical Thinking Dimension and higher scores in the Systemic Thinking Dimension, when compared with psychiatrists who express a weaker professional identification. This prediction is based on the assertion that psychiatrists who report a strong professional identification are more likely to report norms congruent with this profession e.g. adopting a leading role in teams and

taking responsibility for important decisions. The inference therefore is that these norms will not be conducive to shared and distributed leadership.

4. a) A high level of perceived threat to professional identity will be negatively associated with the strength of team identification and positively associated with the strength of professional identification.

b) Threat to professional identity will mediate the association between professional identification and team identification. When the level of professional threat is low, clinicians who report a strong professional identification will also report a strong team identification. When the level of professional threat is moderate to high, clinicians who report a strong professional identification will report a weaker team identification.

CHAPTER 3: METHODOLOGY

3.1 Epistemological Position

The Chief Investigator holds a critical realist epistemological stance on leadership. This is to say that leadership is considered an observable phenomenon but our understanding of this phenomenon is influenced by structures in society and developing research. The Chief Investigator considered a quantitative research design to be the most appropriate form of enquiry to examine the study's hypotheses. This decision does not negate the value that qualitative research methods offer in enhancing our understanding of leadership in healthcare.

3:2 Design

The study incorporated an online survey design to explore the leadership beliefs of healthcare professionals working in MDTs in the East of England. A survey design was selected for a number of reasons. Firstly, the current researchers wanted to explore the leadership beliefs of a large number of clinicians as research in this area is currently scarce. Secondly, a quantitative survey design allowed the researchers to test hypotheses from group identity theories. The possibility of holding focus groups with clinicians to explore their leadership beliefs was considered. However, researchers were concerned that a focus group design would require a greater level of commitment from NHS clinicians during a period of significant pressures i.e. service cuts and redesigns.

3.3 Participants

Two hundred and twenty nine healthcare professionals working in MDTs in mental health, clinical health and neuropsychological settings were recruited to the study. Participants were recruited from the following five East of England NHS trusts: Cambridge and Peterborough NHS Foundation Trust, Hertfordshire Partnership University NHS

Foundation Trust, Norfolk and Suffolk NHS Foundation Trust, North Essex Partnership NHS Foundation Trust and South Essex Partnership University NHS Foundation Trust. Further information about the demographics of participants will be provided in the results section.

3.3.1 Inclusion and Exclusion Criteria

Five professional groups were initially included in the study: clinical psychologists, consultant psychiatrists, occupational therapists, psychiatric nurses and speech and language therapists. The current investigators proposed that minimising the number of professional groups would result in a focussed recruitment strategy. During the middle phase of recruitment however, the inclusion criteria were altered to include social workers and additional allied health professionals (art therapists, drama therapists and psychotherapists). This decision was taken to increase the representativeness of the sample to reflect the wide diversity of professions working in MDTs.

To be eligible for the study, participants were required to be qualified and working in an MDT at the time of completing the survey. Clinicians were only included if they were working in mental health, clinical health or neuropsychological settings. These settings were not restricted to any specific service domains as investigators were keen to recruit clinicians from child, adult, older adult and learning disability teams. Clinicians working solely in inpatient settings were excluded from the study as these settings differ in many ways from community MDTs. Eligibility criteria were not developed for the minimum number of months or years clinician were required to be qualified or working in a MDT. Both of these variables however were recorded in the demographics section of the survey.

3.3.2 Recruitment

Recruitment took place between October 2014 and February 2015. The following recruitment strategies were used:

Contacting senior managers - A number of service leads were contacted in each of the five NHS trusts and they were asked if they could disseminate recruitment e-mails to clinicians in their services. Although this proved a successful recruitment strategy, only half of the service leads contacted were able to disseminate recruitment e-mails.

Using exiting contacts - The Chief Investigator contacted a number of professionals previously known to him. Individuals from a range of professions were able to send e-mail invitations to colleagues in their professions and services. The majority of these contacts came from the NHS trust 'SEPT' as the Chief Investigator had experience of working in MDTs in this organisation. Contacts of the Chief Investigator and senior professionals from each NHS trust cascaded the survey to clinicians at three time points during the five months of recruitment. Recruitment e-mails were evenly spread across this period to capture the presence of new staff members.

Contacting MDT managers - The Chief Investigator attempted to contact MDT team managers in each of the five trusts on one occasion. The decision to limit this contact to one attempt was taken to reduce the likelihood of sampling bias and to ensure an even recruitment of clinicians across trusts. The majority of managers who the Chief Investigator spoke with agreed to disseminate the survey to staff members. This comprised a small proportion of teams overall as managers were often unable to speak with the Chief Investigator or respond to the messages left.

Communication departments - Personnel from the communication departments of all five NHS trusts provided a link to the survey in their trust newsletters on two separate occasions.

3.4 Measures and Survey Development

3.4.1 Primary Measures

Leadership beliefs - Clinicians' leadership beliefs were measured using the Leadership Attitudes and Beliefs Scale (LABS) questionnaire developed by Wielkiewicz (2000). The LABS is a 28-item measure and allows respondents to select five possible responses ranging from 1 (strongly agree) to 5 (strongly disagree). The LABS measures two leadership dimensions: 'Hierarchical Thinking' and 'Systemic Thinking'. Each dimension has a total of 14 items. Statements (items) in the 'Hierarchical Thinking Dimension' are phrased in support of the view that leadership influence should reside with key individuals in positions of seniority and authority. A low score in the Hierarchical Thinking Dimension reflects agreement with principles of hierarchical leadership. Statements in the 'Systemic Thinking Dimension' are phrased in support of the view that leadership responsibilities should be shared between team members. This dimension also features statements related to organisational learning, long-term thinking and ethics. A low score in the Systemic Thinking Dimension indicates an agreement with principles of shared leadership. The LABS was developed following a detailed review of the leadership literature. A principal component analysis was also used to refine items and dimensions in the questionnaire (Wielkiewicz, 2000). Although the LABS has predominantly been used in business and education settings, studies have shown it to have good levels of internal reliability among the items in both dimensions. Wielkiewicz (2000) demonstrated alpha coefficients of .88 for the Hierarchical Thinking Dimension and .84 for the Systemic Thinking Dimension. Similar coefficients were reported by Thompson (2006). Permission was provided by Richard Wielkiewicz to use the LABS in the current study and to make slight amendments to the wording of items.

Professional and team identification - A group identification measure from Brown, Condor, Matthews, Wade and Williams (1986) was used to measure professional

identification and team identification. With permission from the authors, five items were taken from Brown and colleagues' (1986) ten-item measure. It was decided to remove the negatively phrased questions from Brown and colleagues' (1986) questionnaire to avoid potential confusion and to construct a concise measure of group identification. Professor Brown provided advice to the Chief Investigator in adapting this measure; his expertise in the area of social identity research is well established (Brown, 2000; Brown, Eller, Leeds & Stace, 2007). One example item from the original measure is: "*I am a person who identifies with the group.*" This item was changed to: "*I identify with my profession / team.*" Participants rated their level of agreement with each statement by responding on a five point scale ranging from 1 (never) to 5 (very often). Brown and colleagues' (1986) questionnaire was used to measure professional identification and team identification separately by using the word 'team' or 'profession' in each item. Brown and colleagues' (1986) identification measure has been adapted by researchers in a healthcare setting; please refer to Hobman and Bordia (2006) and Mitchell and colleagues (2011). The questionnaire has demonstrated high ratings of internal reliability (Mitchell et al., 2011).

Threat to professional identity - This concept was measured by adapting an existing validated measure from Ethier and Deaux (1990) that comprises six items. Permission was provided by the authors to use and adapt their questionnaire. An example item from this questionnaire is: "*I try not to show the parts of me that are ethnically based.*" This question was changed to: "*I avoid showing the parts of me that are connected to my profession to other team members.*" Participants rated their level of agreement with each statement by responding on a seven point scale ranging from 1 (not at all) to 7 (a great deal). Three items from the original questionnaire were adapted and an additional two items were developed by the current investigators. The developed items measured clinicians' perceptions of threat to their professional values and explored whether they felt their professions were valued in their teams. Mitchell and colleagues (2011) adapted the Ethier and Deaux (1990) questionnaire to

assess inter-professional working in a healthcare setting in Australia. The same authors reported a strong internal reliability for their adapted measure (Mitchell et al., 2011).

Please refer to Appendices' A, B and C for copies of the original questionnaires from Wielkiewicz (2000), Brown et al. (1986), Ethier and Deaux (1990). The adapted versions of these questionnaires can be viewed in Appendix D, which provides the complete version of the survey used in the study.

3.4.2 Control Variables

Demographic information was obtained from participants related to gender, staff grade, qualifications and work setting. A number of factors were proposed to influence the leadership beliefs and group identifications of MDT clinicians outside of the main variables of interest. These factors were identified through an exploration of the literature and included the following: team size (Cunningham & Chelladurai, 2004), team composition (Mitchell et al., 2011), number of years qualified, number of years working in the MDT, the presence of managerial responsibilities and previous leadership training. Questions were also developed to ascertain clinicians' self-reported leadership knowledge, experiences and competencies.

3.4.3 Survey Modifications

The survey was piloted informally to check for face validity and to refine the contents. Seven clinicians from a Learning Disability Team and a Child and Adolescent Mental Health (CAMH) service completed the survey during the pilot stage. Feedback was obtained from two clinical psychologists, a consultant psychiatrist, a speech and language therapist, a community nurse lead, a team manager and an art therapist. These professionals were known to the Chief Investigator but their responses were not included in the survey results. Following feedback from professionals, changes were made to the wording of

questions in the demographic and team information sections of the survey. In addition, some clinicians recommended adding a free response question that allowed respondents to provide qualitative comments about their experiences of leadership in MDTs. This question was added to the survey. A section on leadership behaviours was removed from the survey due to concerns about the duration of time needed to complete the survey.

3.5 Power Calculation

A power calculation was undertaken prior to recruitment to determine the overall number of participants needed to detect a 20% difference (i.e. effect) at a power level of 0.8. A statistical program developed by Krishramoorthy (2006) was used to calculate the sample size needed based on the selected parameter of dividing participants into two professional identification groups (high and low identification groups). An overall sample size of 180 participants was required to detect a 20% difference between groups at a power level of 0.8. In contrast, 240 participants were required to detect a 20% difference between groups at a power level of 0.90.

3.6 Data Collection

The online survey was developed using Qualtrics (an online survey company) and took approximately 10 minutes to complete. Participants were required to read an information sheet and provide their consent before taking part. Participants were guided through the sections of the survey by reading text instructions. A debrief page was provided to participants before they submitted their responses. Please refer to Appendices' E, F and G for copies of the participant information sheet, consent form and debrief sheet.

3.7 Ethical Issues

Participants' responses were securely stored on the Qualtrics website and the data were only accessible to the Chief Investigator and Principal Research Supervisor. No identifiable information was obtained during the study from participants and this ensured their anonymity.

The study received ethical approval from the Health and Human Sciences committee at the University of Hertfordshire. Five NHS trusts in the East of England provided their permission to recruit healthcare clinicians in their trusts. Please refer to Appendix H for a copy of the ethical approval form.

3.8 Internal Reliability Checks

Prior to analysing the data, the internal reliability of each questionnaire was examined using Cronbach's alpha. The Cronbach's alpha for the 14 items of the Hierarchical Thinking Dimension of the LABS was .80. The majority of items in this dimension (13 out of 14) reported an acceptable correlation coefficient with the overall scale (i.e. a correlation coefficient of .30 or greater). Question 21, '*Positional leaders deserve credit for the success of the team*', reported the lowest correlation coefficient (.15). This item however was retained as removing the item would have resulted in a negligible increase in the Cronbach's alpha (an increase from .80 to .81). The Cronbach's alpha for the Systemic Thinking Dimension of the LABS was .90. All the 14 items in this dimension reported a rounded correlation coefficient with the overall subscale of .30 or higher.

The Cronbach's alpha for the professional identification measure was .85, with all five items achieving a correlation coefficient of .50 or greater with the overall scale. Similarly, the Cronbach's alpha for the team identification measure was .90 with all five items achieving a correlation coefficient of .60 or greater with the overall scale. The professional threat scale also reported a high level of internal reliability, Cronbach's alpha of

.85. All of the five items of the professional threat questionnaire reported a correlation coefficient of .50 or greater with the overall scale.

3.9 Statistical Analyses

The significance level of $p < .05$ was chosen to test the study's main hypotheses. The alpha level $p < .05$ was chosen in preference over $p < .01$ to enhance the study's ability to detect smaller differences between groups. A number of authors have demonstrated that stringent alpha levels are typically less sensitive in detecting smaller differences between groups, particularly when samples sizes in groups are modest (Park, 2010). Selecting an alpha level of $p < .05$ allowed the current researchers to strike a balance between the likelihood of falsely reporting a significant result (Type I error) when no effect exists in the population and conversely, falsely concluding that there is no effect in the population when an effect does exist (Type II error). There is a trade off between these two errors as choosing a more stringent alpha level (e.g. $p < .01$ or $p < .001$) reduces the probability of making a Type I error but also increases the probability of a Type II error (Field, 2013). To avoid the possibility of overstating differences at the significance level of $p < .05$, effect sizes, confidence intervals and odds ratios are presented wherever possible.

Fisher's exact tests of independence were used to ascertain whether professional groups differed in a number of categorical variables e.g. grade, qualifications, previous leadership training etc. These analyses were undertaken to identify possible confounding factors that could influence the leadership beliefs of clinicians outside of professional group membership. Fisher's exact tests were chosen as the data were either nominal variables or grouped into categories by the Chief Investigator. Fisher's exact tests were selected in preference over Pearson's chi-square tests because the former method computes an exact probability of the chi-square statistic. Fisher's exact tests can be used on larger contingency

tables (i.e. larger than 2 x 2) as recent versions of SPSS allow for more intensive computations (Field, 2013).

Participants' responses on the LABS questionnaire were regarded as interval data. There are opposing views in the statistics literature as to whether summed responses on Likert scales can be treated as interval data. However, a number of articles have demonstrated that Likert scales can be appropriately analysed as interval data providing there are a sufficient number of items in the scale and acceptable Cronbach alpha levels are demonstrated (Allen & Seaman, 1997; Maurer & Pierce, 1998). The current study reported high levels of internal reliability among the items in both dimensions of the LABS.

One-way ANOVA tests were used to examine potential differences between professional groups' LABS questionnaire scores in the Hierarchical Thinking Dimension and the Systemic Thinking Dimension. Independent t-tests were completed to explore differences between men and women in both dimensions of the LABS. Parametric tests were chosen to compare the leadership beliefs of different groups (i.e. professional groups and genders) as the data met the assumptions of a normal distribution and equal variances between the groups. These assumptions will be discussed in further detail in Chapter 4.

Measures of professional identification, team identification and professional threat were treated as ordinal data due to the low number of Likert items that comprised each scale and concerns about the symmetry of the response options. Participants' responses on each identification measure and LABS dimensions were divided into binary categories. Further information about this categorisation process is provided in the results section. Once these variables were categorised, Fisher's exact tests of independence were used to examine the association between specific identification measures and participants' LABS questionnaire scores in both dimensions. Fisher's exact tests of independence were also used to explore the association between different identification measures (e.g. professional identification and

team identification, professional identification and professional threat, team identification and professional threat).

Logistic regression analyses were completed to explore the impact of a number of dichotomous predictor variables on participants' categorised LABS questionnaire scores in both dimensions. The regression analyses also allowed the current researchers to control for the effects of numerous variables on clinicians' leadership beliefs.

The online survey provided participants with two questions where they could offer qualitative comments on their leadership beliefs and the leadership functioning of their MDTs. Very few individuals provided responses to these questions (14 individuals provided comments). As a result of this low response rate, combined with time pressures, it was decided not to include an analysis of these responses in the current thesis. However, these responses may be analysed in further detail for the purpose of publication in journals.

CHAPTER 4 - RESULTS

4.1 Overview

Chapter 4 will first provide information on the sample characteristics of the participants recruited to the study. Potential differences between professional groups in a number of variables will then be explored. The influence of these variables on participants' LABS scores will be later analysed in the form of logistic regression.

The main hypotheses of the study will be examined in a linear sequence. This will involve exploring potential differences between professional groups and genders in their LABS scores in both dimensions. The association between identification measures and participants' LABS scores will also be evaluated. Towards the end of the chapter, the association between group identification variables will be examined.

Each section in the results will follow a specific pattern. Information will be outlined about the number and types of participants featured in each analysis. Information will then be provided about test procedures and the assumptions underlying these tests. Thereafter, the main findings of the section will be presented.

4.2 Sample Characteristics

In total, 336 clinicians provided consent to take part in the study. A significant proportion of participants did not provide responses on the survey following the initial eligibility questions. This resulted in a dropout rate of 28% ($n = 95$). Of the 241 remaining participants, 12 individuals did not meet eligibility criteria as they were not working in a multi-disciplinary team. A total of 229 participants were included in the study.

Of the 224 participants who provided their gender, 165 (74%) were women and 59 (26%) were men. Table 1 shows the frequency and percentage of clinicians in each professional group included in the study.

Table 1. *The frequency and percentage of clinicians in each of the professional groups included in the study.*

Professional Group	Number of Clinicians	Percentage
Psychiatric nurses	63	28%
Clinical psychologists	55	24%
Consultant psychiatrists	44	19%
Occupational therapists	23	10%
Social workers	19	8%
Other	10	4.5%
Speech and language therapists	7	3%
Family therapists	4	2%
Psychotherapists	3	1%
Art therapists	1	0.5%
Total	229	100%

The majority of the 229 participants worked in a mental health setting (n = 207, 90%). Smaller percentages of clinicians worked in neuropsychological (n = 36, 16%), clinical health (n = 24, 10%), neurodevelopmental (n = 24, 10%) and addiction services (n = 21, 9%). Just under half of the 229 participants worked in adult MDTs (n = 106, 46%). Participants were also based in older adult teams (n = 53, 23%), learning disability teams (n = 43, 19%) and child / adolescent teams (n = 37, 16%).¹

Of the 171 participants who provided their NHS Agenda for Change grade, the majority of clinicians were categorised in grades' 5, 6 and 7 (n = 106, 62%). A smaller proportion of clinicians were categorised in grades' 8a, 8b and 8c (n = 60, 35%). Only five clinicians (3%) were categorised in grades' 8d or higher. These figures exclude consultant psychiatrists as the NHS Agenda for Change pay scale is not applicable to this profession.

¹ *These percentages do not equate to 100% overall as participants could select more than one team setting and clinical area. This was relevant to clinicians who worked in two or more MDTs.*

There was great variation in the number of years professionals had been qualified in their professions (as indicated in Figure 1).

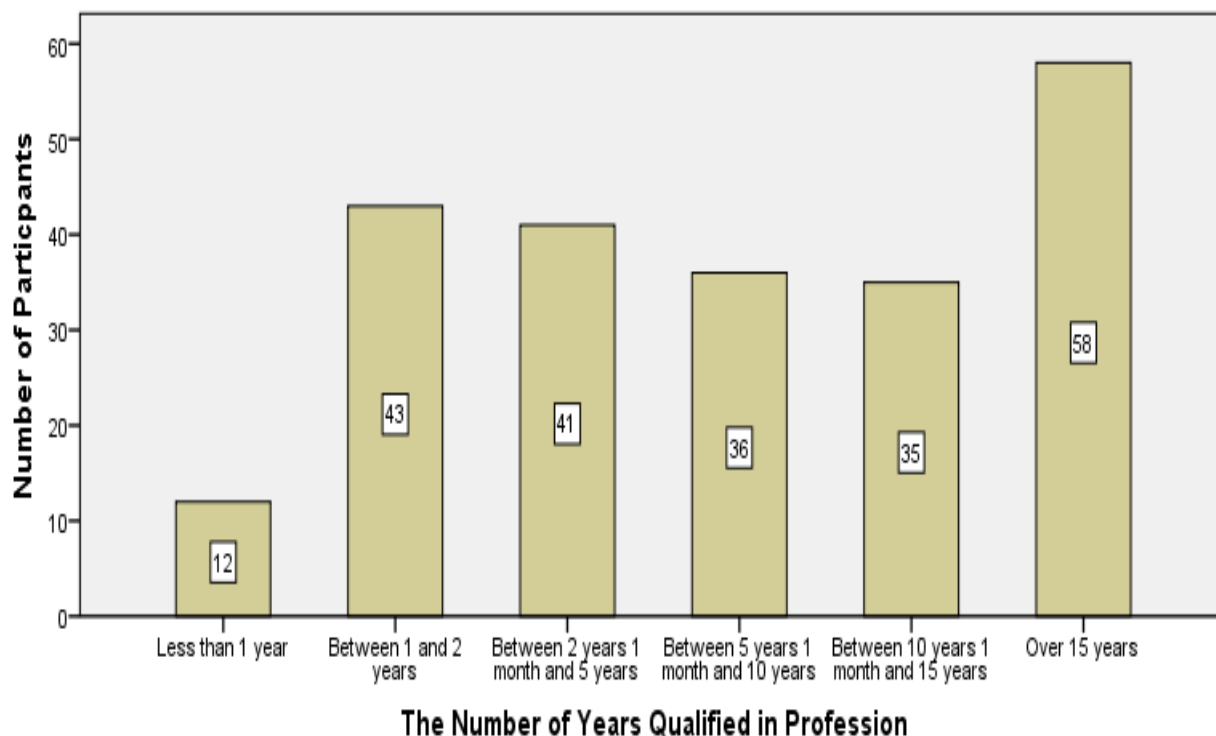


Figure 1. The number of years participants had been qualified in their respective professions.

There was a fairly even spread in the number of years professionals had been working in their MDTs. Of the 223 responses, 42 participants (19%) had worked in their MDTs for less than a year, 34 participants (15%) between one and two years, 42 participants (19%) between two years one month and five years, and 56 (25%) participants between five years one month and ten years. The remaining 49 (22%) participants had worked in their MDTs for over 10 years.

Approximately a quarter of the 229 participants in the study were team leaders of their respective MDTs ($n = 54$, 24%). A slightly greater proportion of participants had undertaken leadership training since qualifying in their profession ($n = 124$, 55%) in comparison to participants who had not received training ($n = 101$, 45%). Of the 224 participants who

responded to the question on the Clinical Leadership Competencies Framework (CLCF), 78 participants (35%) reported they were either 'familiar' or 'very familiar' with this document. In contrast, 101 participants (45%) reported they were 'unfamiliar' or 'very unfamiliar' with this document. The remaining 45 participants (20%) reported they were 'neither familiar nor unfamiliar' with this document. Of the 220 participants who responded to the question on the Healthcare Leadership Model, 48 participants (22%) reported they were 'familiar' or 'very familiar' with this document. In contrast, 118 participants (54%) reported they were 'unfamiliar' or 'very unfamiliar' with this document. The remaining 54 participants (24%) reported they were 'neither familiar nor unfamiliar' with this document.

The vast majority of the 229 clinicians in the study had experienced at least one form of service change in the previous year ($n = 185, 81\%$). Similarly, 177 of 229 clinicians (77%) reported they were expecting their services to undergo service changes in the upcoming year.

4.3 Differences between Professional Groups

The main assumptions of Fisher's exact test of independence were achieved for the analyses examining differences between professional groups (i.e. that the observations in each cell were independent and the data were categorical). The number of participants included in each analysis differed as a result of the response rate for each question.

A number of differences emerged between the professions. A significant association was found between profession and the duration of time qualified, $p < .001$, Fisher's exact test. A greater proportion of clinical psychologists (24 out of 54, 44%) and social workers (8 out of 19, 43%) had been qualified for two years or less when compared to consultant psychiatrists (6 out of 43, 14%), occupational therapists (4 out of 23, 17%) and psychiatric nurses (9 out of 62, 15%). There were no significant differences between the professions in the duration of time they had been working in MDTs, $p = .15$, Fisher's exact test.

There was a significant association between profession and the position of team leader, $p = .001$, Fisher's exact test. Of the 204 participants who responded, a lower proportion of clinical psychologists were team leaders in their MDTs (3 out of 55, 5.5%) when compared with consultant psychiatrists (15 out of 44, 34%), psychiatric nurses (20 out of 63, 32%), social workers (5 out of 19, 26%) and occupational therapists (5 out of 23, 22%). A significant association was found between professional group and leadership training, $p < .001$, Fisher's exact test. Fewer clinical psychologists and social workers had undertaken leadership training when compared with the other professional groups. In total, 18 out of 55 clinical psychologists (33%) and 7 out of 19 social workers (37%) had received leadership training since qualifying in their professions. In contrast, 37 out of 43 consultant psychiatrists (86%), 15 out of 23 occupational therapists (65%) and 35 out of 61 psychiatric nurses (57%) had received leadership training.

Professional groups differed in their confidence to apply leadership skills, $p < .001$, Fisher's exact test, and also in their perceived opportunities to display leadership, $p = .002$, Fisher's exact test. Figures 2 and 3 provide a graphic summary of the differences between groups in their leadership confidence ratings and perceived leadership opportunities.

Participants across professional groups also differed in their familiarity of the CLCF, $p = .001$, Fisher's exact test. A greater proportion of psychiatrists reported they were either 'very familiar' or 'familiar' with the CLCF (23 out of 41, 57%) when compared with clinical psychologists (23 out of 55, 42%), psychiatric nurses (20 out of 62, 32%), occupational therapists (3 out of 22, 16%) and social workers (1 out of 19, 5%).

Differences also emerged between professional groups in relation to participants' highest qualification level, $p < .001$, Fisher's exact test. In total, 49 out of 55 clinical psychologists (89%) and 43 out of 43 consultant psychiatrists (100%) had completed a PhD or Doctorate level degree. In comparison, none of the occupational therapists, psychiatric nurses or social workers in the study had obtained a PhD or Doctoral level degree.

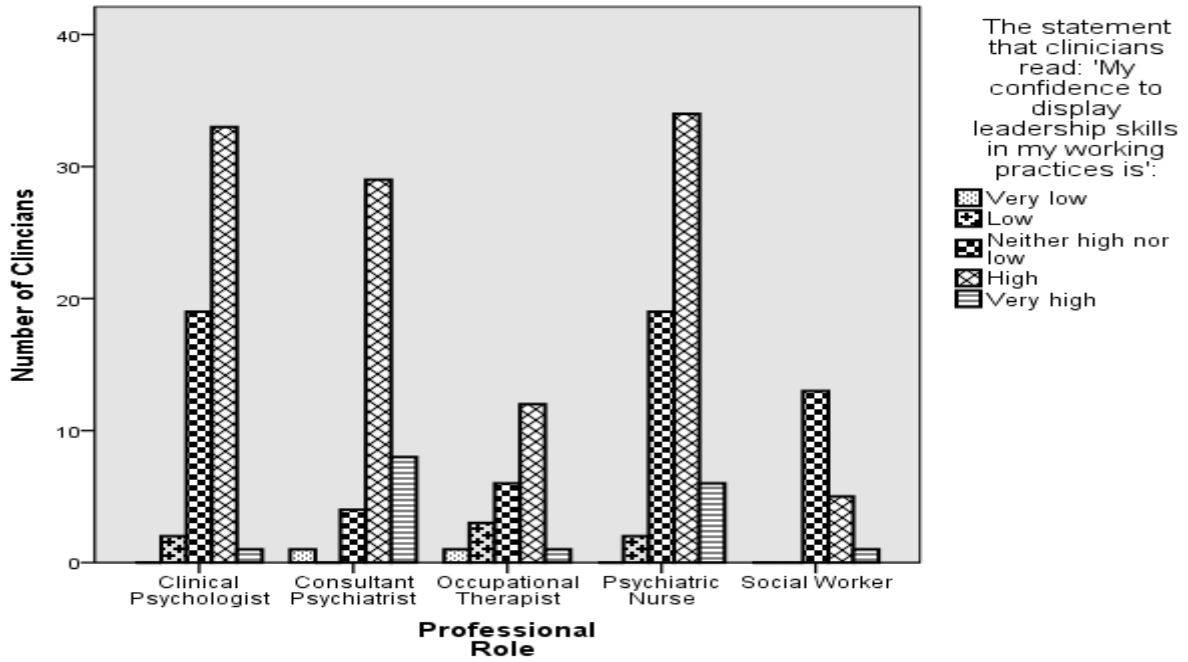


Figure 2. The confidence ratings of participants in different professional groups.

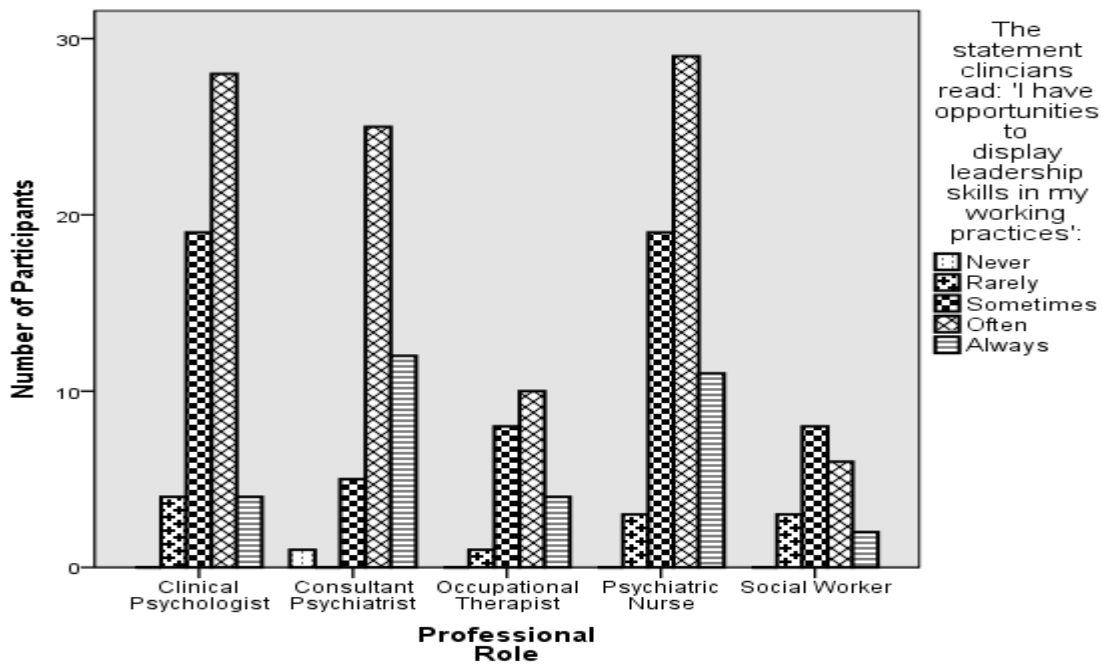


Figure 3. The opportunities to display leadership skills in different professional groups.

There was a significant association between professional group and NHS pay grade when grouping participants into either grade 7 or below and grade 8a or higher, $p < .001$, Fisher's exact test. A greater proportion of clinical psychologists were employed in grade 8a

posts or higher (40 out of 54, 74%) when compared with social workers (2 out of 14, 14%), psychiatric nurses (7 out of 54, 13%) and occupational therapists (2 out of 22, 9%).

There were no significant differences between professional groups in the level of professional identity threat participants' experienced at the significance level of $p < .05$, $p = .08$, Fisher's exact test. However, a trend emerged in participants' responses. A smaller proportion of social workers reported the lowest level of threat when compared to all other professions (4 out of 18, 22%). A greater proportion of consultant psychiatrists (23 out of 39, 59%), psychiatric nurses (34 out of 58, 59%), clinical psychologists (26 out of 52, 50%) and occupational therapists (10 out of 21, 48%) reported the lowest level of threat to their professional identities. No significant differences were apparent between professional groups in the strength of participants' identification with their professions, $p = .55$, Fisher's exact test, or the strength of participants' identification with their teams, $p = .22$, Fisher's exact test.

No differences emerged between professional groups in the total number of clinicians comprising their MDTs, $p = .49$, Fisher's exact test, and the number of clinicians who had experienced service changes, $p = .69$, Fisher's exact test.

4.4 Main Results

4.4.1 Professional Group and LABS Scores

Of the 229 participants in the study, 15 participants could not be included in the analysis of LABS questionnaire scores across professional groups as these individuals completed fewer than seven items from the 28-item questionnaire. The remaining 214 participants completed all the items in the questionnaire. However, 24 of these participants were excluded from the analysis as they came from professional groups with low sample sizes. This left a total of 190 participants across five professional groups: clinical

psychologists, consultant psychiatrists, occupational therapists, psychiatric nurses and social workers.

The two dimensions of the LABS, ‘Hierarchical Thinking’ and ‘Systemic Thinking’, each have 14 items. A maximum score of 70 can be obtained in both these dimensions. A low score in the Hierarchical Thinking Dimension indicates agreement with statements that support hierarchical leadership, whereas a high score indicates disagreement. In comparison, a low score in the Systemic Thinking Dimension indicates agreement with statements that support shared leadership, whereas a high score reflects disagreement.

The LABS Hierarchical Thinking Dimension mean score for all participants was 45 ($n = 214$, $SD = 6$), with a range of 37. The LABS Systemic Thinking Dimension mean score for all participants was 26 ($n = 214$, $SD = 5.5$), with a range of 50. Tables’ 2 and 3 provide the descriptive statistics for the five main professional groups’ LABS questionnaire scores in the Hierarchical Thinking Dimension and the Systemic Thinking Dimension.

Table 2. *Descriptive statistics for the LABS Hierarchical Thinking Dimension scores of participants in the five main professional groups.*

Professional Group	M	Mdn	SE	95% CI	SD
Clinical psychologists n = 52	47	47	0.7	45 – 48	5
Consultant psychiatrists n = 39	46	46	1	45 – 48	6
Occupational therapists n = 21	46	47	1.2	43 – 48	5
Psychiatric nurses n = 60	44	43	0.9	42 – 45	7
Social workers n = 18	45	46	1.6	42 – 49	7
Total n = 190					

Table 3. *Descriptive statistics for the LABS Systemic Thinking Dimension scores of participants in the five main professional groups.*

Professional Group	M	Mdn	SE	95% CI	SD
Clinical psychologists n = 52	26	26	0.7	24 - 27	5
Consultant psychiatrists n = 39	25	26	0.8	23 - 26	5
Occupational therapists n = 21	26	27	0.9	24 - 28	4
Psychiatric nurses n = 59	26	27	0.6	25 - 28	5
Social workers n = 18	26	27	1	24 - 28	4
Total n = 189					

The assumptions underpinning parametric tests were checked prior to comparing the LABS questionnaire scores of professional groups. The assumptions of normality and equal variances between groups were achieved for the Hierarchical Thinking Dimension scores of all professional groups. Please refer to Appendix I for a visual summary of the spread of participants' Hierarchical Thinking Dimension scores and for a box plot indicating equal variances among the professional groups.

The same assumptions however were not confirmed when viewing the distribution of participants' Systemic Thinking Dimension scores (Appendix J). This was a result of one extreme outlier in the data set that comprised the psychiatric nursing group. Figure 4 displays the extreme outlier in the psychiatric nursing group. The outlier marked as participant 68 was removed from the data set as this response was greater than three standard deviations away from the mean score of the psychiatric nursing group. Removing the extreme outlier from the distribution of Systemic Thinking Dimension scores resulted in the assumptions of normality and equal variances being achieved (Appendix K).

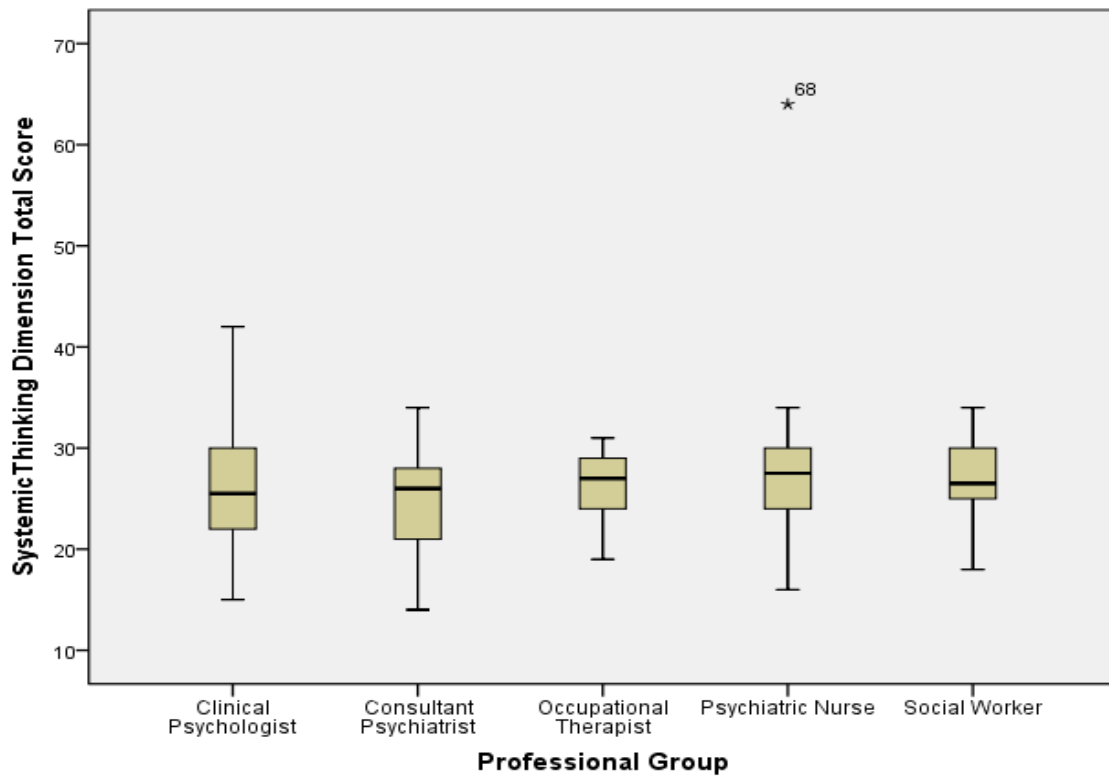


Figure 4. The spread of participants' LABS Systemic Thinking Dimension scores grouped by profession.

Having met the main assumptions of parametric tests, a one-way ANOVA was used to test for differences between professional groups in both dimensions of the LABS. No significant differences were found between professionals groups in participants' Hierarchical Thinking Dimension scores, $F(4, 185) = 84.26, p = .08, \eta^2 = .044$. There were no significant differences between professional groups in participants' scores in the Systemic Thinking Dimension of the LABS, $F(4, 184) = 24.33, p = .38, \eta^2 = .019$.

4.4.2 Gender and LABS Scores

A total of 212 participants were included in the analysis of gender and LABS Hierarchical Thinking Dimension scores. One outlier was removed from the Systemic Thinking Dimension scores of men as this score was greater than three standard deviations away from the mean. Therefore, a total of 211 participants were included in the analysis of

gender and LABS questionnaire scores in the Systemic Thinking Dimension. A number of participants ($n = 17$) were excluded from both analyses as they did not provide information on their gender or answer a sufficient number of questions on the LABS questionnaire.

The mean score for women in the Hierarchical Thinking Dimension was 46 ($n = 156$, $SD = 6$), with a range of 37. The mean score for men in the Hierarchical Thinking Dimension was 44 ($n = 56$, $SD = 7$), with a range of 31. The mean score for women in the Systemic Thinking Dimension was 26 ($n = 156$, $SD = 5$), with a range of 23. In contrast, the mean score for men in the Systemic Thinking Dimension was 27 ($n = 55$, $SD = 5$), with a range of 28.

The assumptions of normality and equal variances between groups were achieved for the Hierarchical Thinking Dimension scores of men and women. These assumptions however were not achieved for the Systemic Thinking Dimension. This was due to one extreme outlier in the gender grouping of ‘men’ (Figure 5).

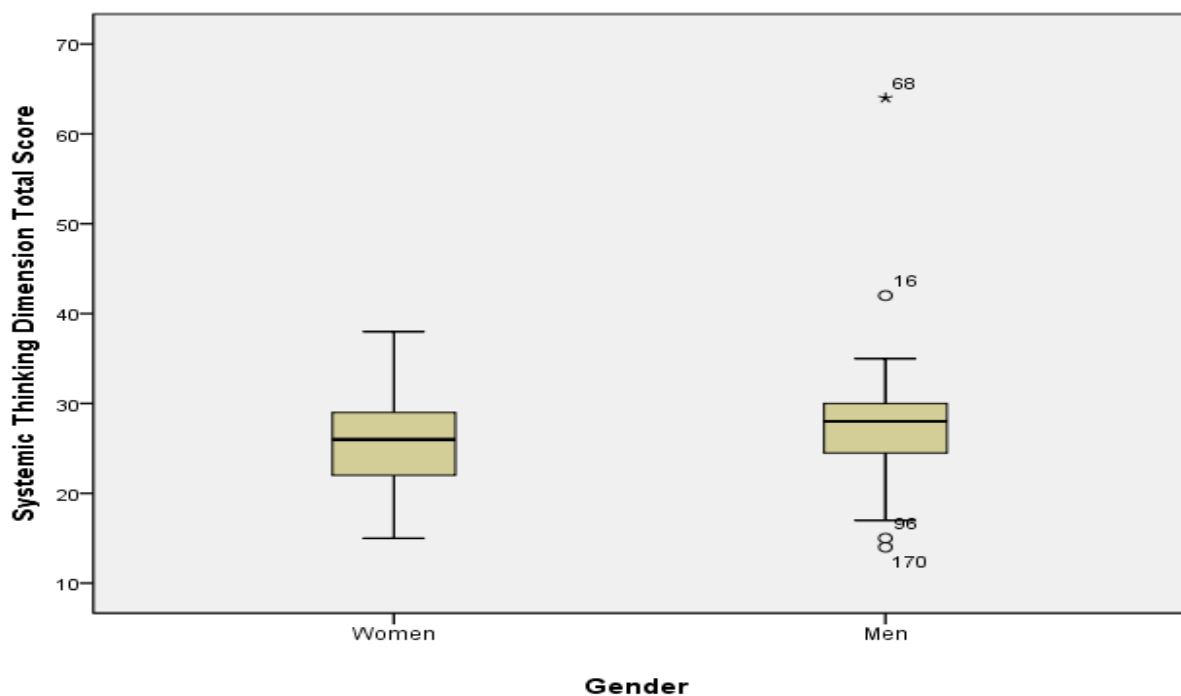


Figure 5. The spread of participants' LABS Systemic Thinking Dimension scores grouped by gender.

The same outlier (participant 68) was removed from the analysis as this response was greater than three standard deviations away from the mean score of the 'men' group. The additional outliers indicated in Figure 5 were retained for the analysis as these responses did not exceed the threshold of three standard deviations away from the mean. Removing the extreme outlier from the distribution of men's Systemic Thinking Dimension scores resulted in the assumptions of normality and equal variances being achieved.

Independent t-tests were used to test for differences between the LABS questionnaire scores of women and men in both dimensions. There was no significant difference between men and women in participants' Hierarchical Thinking Dimension scores, $t(210) = 1.37, p = .17, d = .18$. There was also no significant difference between men and women in participants' Systemic Thinking Dimension scores, $t(209) = -1.66, p = .098, d = .22$.

4.4.3 Interaction Effects of Profession and Gender

The analysis of the interaction between profession and gender was not completed as statistically significant differences did not emerge between professional groups or men and women in participants' LABS scores.

4.4.4 Identification and LABS Scores: Categorisation Process

A total of 216 participants completed the professional identification questionnaire and a total of 227 participants completed the team identification questionnaire. The majority of participants in the study reported strong identifications with their teams and professions. This is indicated in Figures' 6 and 7, which provide participants' total scores on the professional and team identification measures. Participants' total scores were based on their summed scores across the five items of each identification questionnaire.

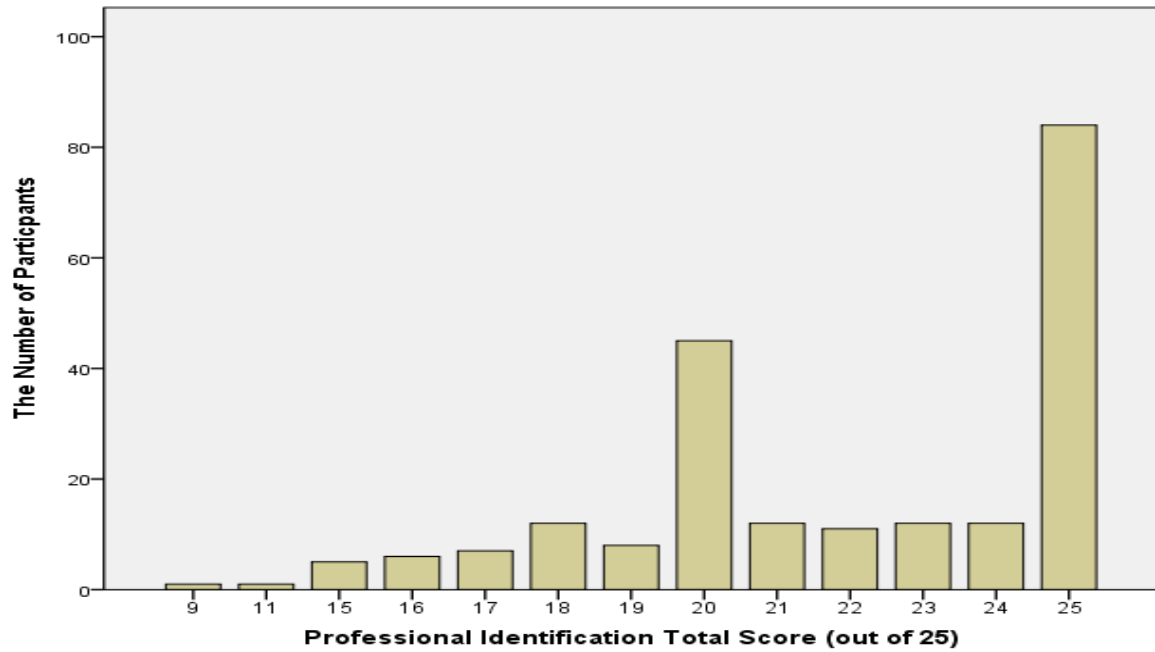


Figure 6. The professional identification total scores of participants.

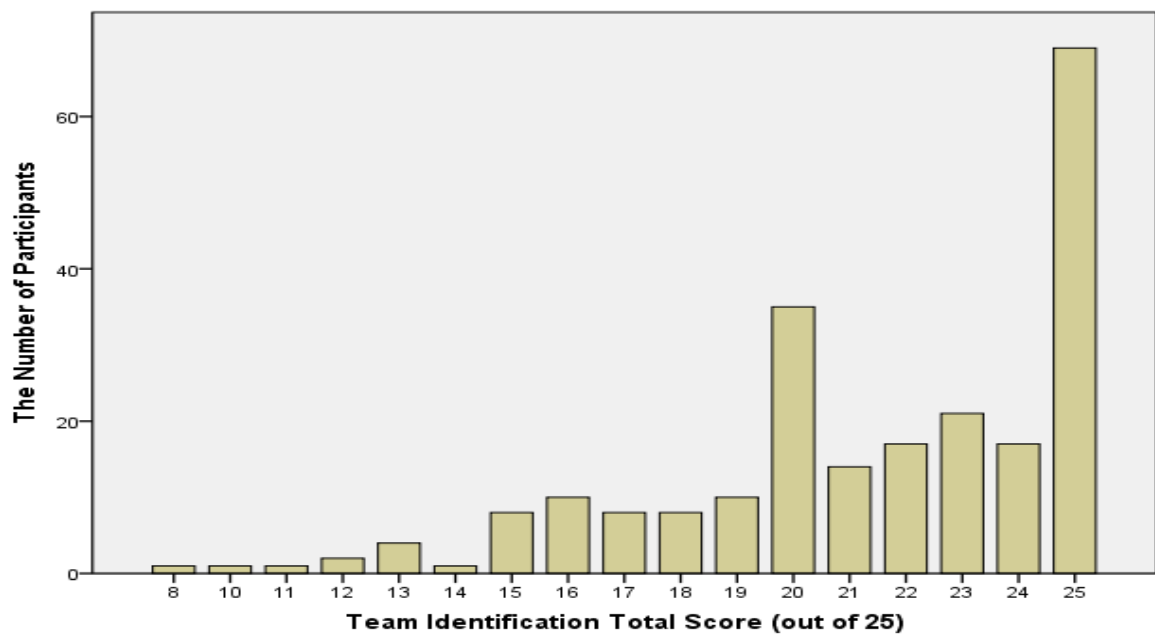


Figure 7. The team identification total scores of participants.

The median professional identification score for participants was 22.5. The majority of participants ($n = 196$, 91%) reported a total professional identification score of 18 or above. The remaining 20 participants (9%) reported a total professional identification score

of 17 or below. The median team identification score for participants was 22. The majority of participants (n = 191, 84%) reported a total team identification score of 18 or above. The remaining 36 participants (16%) reported a total team identification score of 17 or below.

A total of 212 participants responded to the professional threat questionnaire. The majority of participants reported a low level of threat to their professional identity. The median professional identity threat score for participants was 10.5 (out of a possible 35). The majority of participants (n = 130, 61%) reported a total professional identity threat score of 12 or below. A smaller percentage of participants reported a total professional identity threat score of between 13 and 26 (n = 78, 37%). The remaining participants (n = 4, 2%) reported a total professional threat score of 27 or above.

For the purpose of inferential analyses, participants were divided into binary categories for professional identification, team identification and professional threat. The median was used to categorise participants into groups as no standardised cut off scores exist for the questionnaires used in the study. More specifically, participants who scored below and above the median in each variable were divided into separate categories.

Participants who scored a total of 23 or above on the professional identification questionnaire were assigned to the 'strongest professional identification' group. In comparison, participants who scored below 23 were placed into the 'weaker professional identification' group. The same criteria and grouping classifications were used to assign participants into team identification categories. Participants who scored a total of 10 or under on the professional threat questionnaire were assigned to the 'lowest professional threat' group. In comparison, participants who scored above 10 on this questionnaire were assigned to the 'higher professional threat' group.

The same process was undertaken to categorise participants into binary categories for both dimensions of the LABS questionnaire. Participants who scored a total of 46 or above in the Hierarchical Thinking Dimension of the LABS were assigned to the 'high' scoring

group. In comparison, participants who scored below 46 were assigned to the ‘lower scoring’ group. Participants who scored a total of 27 or above in the Systemic Thinking Dimension were assigned to the ‘high’ scoring group. Participants who scored below 27 were assigned to the ‘lower’ scoring group.

4.4.5 Identification and LABS Scores: Hierarchical Thinking Dimension

Fisher’s tests of independence were completed to examine the association between identification variables and participants’ LABS Hierarchical Thinking Dimension scores. The assumptions that the observations in each cell were independent and the data were categorical were achieved.

Table 4 provides the cell counts of participants’ responses across the categorised levels of professional identification and LABS Hierarchical Thinking Dimension scores. No significant association was found between the strength of professional identification and the Hierarchical Thinking Dimension scores of participants, $p = .68$, Fisher’s exact two-sided test. Separate analyses for each of the five largest professions were completed. These analyses did not report any significant associations between the strength of professional identification and the Hierarchical Thinking Dimension scores of participants in each of the five professional groups.

Fisher’s test of independence was also used to explore the association between the strength of team identification and participants’ LABS questionnaire scores in the Hierarchical Thinking Dimension ($n = 214$). There was no significant association between the strength of team identification and participants’ Hierarchical Thinking Dimension scores, $p = .41$, Fisher’s exact two-sided test.

Lastly, the association between the level of threat to professional identity and participants’ Hierarchical Thinking Dimension scores was explored ($n = 211$). There was no

significant association between the level of professional identity threat and participants' Hierarchical Thinking Dimension scores, $p = .26$, Fisher's exact one-sided test.

Table 4. *The cell counts of participants' responses grouped by professional identification and LABS Hierarchical Thinking Dimension scores.*

		Hierarchical Thinking Dimension category		Totals
		Lower scoring group	High scoring group	
Professional identification category	Weaker professional identification group	51 (48%)	55 (52%)	n = 106 (100%)
	Strongest professional identification group	48 (45%)	59 (55%)	n = 107 (100%)
				n = 213

4.4.6 Identification and LABS Scores: Systemic Thinking Dimension

Fisher's tests of independence were completed to examine the association between the identification variables and participants' LABS Systemic Thinking Dimension scores. The assumptions underlying this test were achieved for all analyses. Table 5 provides the cell counts of participants' responses across the categorised levels of professional identification and LABS Systemic Thinking Dimension scores.

There was a significant association between the strength of professional identification and participants' Systemic Thinking Dimension scores, $p < .001$, Fisher's exact two-sided test (Table 5). Based on the odds ratio, the odds of participants being assigned to the 'lower

scoring' LABS Systemic Thinking Dimension group were 2.35 times higher for individuals who reported the 'strongest professional identification' than for individuals who reported a 'weaker professional identification.'

Separate analyses were completed for each of the five largest professional groups. There was no significant association between the strength of professional identification and the Systemic Thinking Dimension scores of clinical psychologists, $p = .42$, Fisher's exact one-sided test, consultant psychiatrists, $p = .26$, Fisher's exact one-sided test, and social workers, $p = .50$, Fisher's exact one-sided test. There was also no significant association between the strength of professional identification and the Systemic Thinking Dimension scores of occupational therapists, $p = .06$, Fisher's exact one-sided test, and psychiatric nurses, $p = .07$, Fisher's exact two-sided test. However, the analyses for these professions were approaching statistical significance at the level of $p < .05$.

Table 5. *The cell counts of participants' responses grouped by professional identification and LABS Systemic Thinking Dimension scores.*

		Systemic Thinking Dimension category		Totals
		Lower scoring group	High scoring group	
Professional identification category	Weaker professional identification group	42 (40%)	64 (60%)	n = 106 (100%)
	Strongest professional identification group	65 (61%)	42 (39%)	n = 107 (100%)
				n = 213

Although none of the associations for each professional group reached the significance level of $p < .05$, the same pattern emerged for all the professions; participants who expressed the strongest identification with their professions reported the greatest level of agreement with shared leadership. For example, of the 30 psychiatric nurses who reported the 'strongest professional identification', a greater proportion of these participants were assigned to the 'lower scoring' LABS Systemic Thinking Dimension group ($n = 17, 57\%$) than the 'high scoring' group ($n = 13, 43\%$). Of the 29 psychiatric nurses who reported a 'weaker professional identification', a greater proportion of these participants were assigned to the 'high scoring' LABS Systemic Thinking Dimension group ($n = 20, 69\%$) than the 'lower' scoring group ($n = 9, 31\%$).

A significant association emerged between the strength of team identification and participants' LABS questionnaire scores in the Systemic Thinking Dimension, $p = .04$, Fisher's exact two-sided test. Of the 102 participants who reported the 'strongest team identification', a greater proportion of these individuals were assigned to the 'lower scoring' LABS Systemic Thinking Dimension group ($n = 59, 58\%$) than the 'high scoring' group ($n = 43, 42\%$). In comparison, of the 112 participants who reported a 'weaker team identification', a greater proportion of these individuals were assigned to the 'high scoring' LABS Systemic Thinking Dimension group ($n = 63, 56\%$) than the 'lower scoring' group ($n = 49, 44\%$). The odds of participants being assigned to the 'lower scoring' LABS Systemic Thinking Dimension group were 1.76 times higher for individuals who reported the 'strongest team identification' than for individuals who reported a 'weaker team identification'.

No significant association was found between the level of threat to professional identity and participants' Systemic Thinking Dimension scores, $p = .07$, Fisher's exact one-sided test. While this association did not reach the level of statistical significance, a trend emerged in the data. Of the 105 participants who reported the 'lowest professional threat'

level, a greater proportion of these individuals were assigned to the ‘lower scoring’ LABS Systemic Thinking Dimension group ($n = 59, 56\%$) than the ‘high scoring’ group ($n = 46, 44\%$). The reverse was true for participants who reported a ‘higher’ level of professional threat.

4.4.7 Association between Identification Factors

Fisher’s tests of independence were completed to examine the association between different pairings of identification and threat to professional identity. A significant association was found between the strength of professional identification and the strength of team identification, $p = .03$, Fisher’s exact two-sided test. Of the 108 participants who reported the ‘strongest professional identification’, a greater proportion of these individuals reported the ‘strongest team identification’ ($n = 59, 55\%$) than a ‘weaker team identification’ ($n = 49, 45\%$). In contrast, of the 108 participants who reported a ‘weaker professional identification’, a greater proportion of these individuals reported a ‘weaker team identification’ ($n = 66, 61\%$) than the ‘strongest team identification’ ($n = 42, 39\%$). Based on the odds ratio, the odds of participants reporting the ‘strongest team identification’ were 1.89 times higher for individuals who reported the ‘strongest professional identification’ than for individuals who reported a ‘weaker professional identification.’

Further analysis indicated that the association between professional identification and team identification was mediated by the level of professional threat participants’ experienced. There was a significant association between professional identification and team identification when participants were assigned to the ‘lowest professional threat’ group, $p = .01$, Fisher’s exact one-sided test. However, this association was not significant when participants were assigned to the ‘higher professional threat’ group, $p = .48$, Fisher’s exact one-sided test. In other words, participants who reported the strongest level of identification

with their professions were more likely to report the strongest level of identification with their teams when the level of professional threat was low.

A significant association was found between professional threat and team identification, $p < .001$, Fisher's exact one-sided test. As indicated in Table 6, participants who reported the lowest level of professional identity threat ($n = 106$) were more likely to report the 'strongest team identification' ($n = 68$, 64%) than a 'weaker team identification' ($n = 38$, 36%). The reverse was true for participants who reported a higher level of threat to their professional identity. Based on the odds ratio, the odds of participants reporting the 'strongest team identification' were 4.13 times higher for individuals who reported the 'lowest professional threat' level than for individuals who reported a 'higher professional threat' level.

Table 6. *The cell counts of participants' responses grouped by professional threat level and team identification.*

		Team identification category		Totals
		Weaker team identification group	Strongest team identification group	
Professional threat category	Lowest professional threat group	38 (36%)	68 (64%)	106 (100%)
	Higher professional threat group	74 (70%)	32 (30%)	106 (100%)
				n = 212

A significant association was found between professional threat and professional identification, $p = .03$, Fisher's exact two-sided test. Of the 106 participants who reported the lowest level of professional threat, a greater proportion of these individuals reported the 'strongest professional identification' ($n = 61, 56\%$) than a 'weaker professional identification' ($n = 45, 44\%$). In contrast, of the 106 participants who reported a higher level of professional threat, a greater proportion of these individuals reported a 'weaker professional identification' ($n = 61, 56\%$) than the strongest 'professional identification' ($n = 45, 44\%$). Based on the odds ratio, the odds of participants reporting the 'strongest professional identification' were 1.83 times higher for individuals who reported the 'lowest professional threat' level than for individuals who reported a 'higher professional threat' level.

4.5 Regression Analyses

Logistic regression analyses of participants' categorised LABS questionnaire scores were completed for both the Hierarchical Thinking Dimension and the Systemic Thinking Dimension. These analyses were undertaken to ascertain the amount of variance in LABS questionnaire scores that could be explained by the factors recorded in the study. In addition, the regression analyses allowed the current researchers to control for the effects of numerous variables on clinicians' leadership beliefs.²

A number of variables were dummy coded and placed into the regression models as predictors. These variables were entered into the models in order of importance and relevance to leadership beliefs. This level of relevance was based on previous leadership research. Variables were only included in the final models if they reached the $p < .05$ level of significance. As logistic regression in SPSS only includes listwise cases in the analysis, a

² Control variables included factors such as the number of years qualified in profession, number of years working in a MDT, leadership training, team leader responsibilities, grade, highest qualification level etc.

number of cases were omitted. In total, 188 participants were included in the regression analysis of LABS Hierarchical Thinking Dimension scores and 181 participants were included in the analysis of LABS Systemic Thinking Dimension scores.

As indicated in Table 7, only one variable proved to be significant in predicting the categorised Hierarchical Thinking Dimension scores of participants at the significance level of $p < .05$.

Table 7. *The beta values, standard error, significance levels and confidence intervals for variables in the prediction model for participants' LABS Hierarchical Thinking Dimension scores.*

Variable	B	SE	Sig	Exp (B)	90% CI for Exp (B)	95% CI for Exp (B)
Professional group: psychiatric nurses	-1.04	0.4	0.02	0.36	0.17 - 0.72	0.15 - 0.83

The model was found to predict approximately 8% of variation in the categorised LABS scores of participants in the Hierarchical Thinking Dimension (Nagelkerke $R^2 = .079$). Based on the model, psychiatric nurses were 0.64 times less likely than other professions to report a LABS Hierarchical Thinking Dimension score in the 'high scoring' category (95% CI for *Exp B*: 0.15 - 0.83).

The same regression process was undertaken to examine the variance of categorised LABS Systemic Thinking Dimension scores. As indicated in Table 8, three variables proved to be significant in predicting the categorised Systemic Thinking Dimension scores of participants.

The model was found to predict approximately 15% of variation in the categorised LABS scores of participants in the Systemic Thinking Dimension (Nagelkerke $R^2 = .147$). When including the additional effects of gender and professional identification, participants who reported a moderate or unfamiliar rating with the Healthcare Leadership Model were 2.8

times more likely than those familiar with the Healthcare Leadership Model to report a Systemic Thinking Dimension score in the ‘high scoring’ category (95% CI for *Exp B*: 1.30 - 11.26). When including the additional effects of familiarity with the Healthcare Leadership Model and professional identification, men were 2.3 times more likely than women to report a Systemic Thinking Dimension score in the ‘high scoring’ category (95% CI for *Exp B*: 1.10 - 4.70). Participants who reported the ‘strongest professional identification’ were 0.63 times less likely than those who reported a ‘weaker professional identification’ to be placed in the ‘high scoring’ Systemic Thinking Dimension category (95% CI for *Exp B*: 0.26 – 0.90), when taking into account the effects of familiarity with the Healthcare Leadership Model and gender.

Table 8. *The beta values, standard error, significance levels and confidence intervals for variables in the prediction model for participants’ LABS Systemic Thinking Dimension scores.*

Variable	B	SE	Sig	Exp (B)	90% CI for Exp (B)	95% CI for Exp (B)
Healthcare Leadership Model	1.34	0.5	0.01	2.8	1.55 - 9.50	1.30 - 11.26
Gender	0.81	0.4	0.03	2.3	1.21 - 4.28	1.10 - 4.70
Professional Identification	-0.73	0.3	0.02	0.37	0.29 - 0.81	0.26 - 0.90

4.6 Summary of Results

The Leadership Attitudes and Beliefs Scale (LABS)

- There were no statistically significant differences between professional groups in their LABS Hierarchical Thinking Dimension scores or Systemic Thinking Dimension scores i.e. no differences were apparent between professionals in their beliefs about shared and distributed leadership.
- There were no significant differences between men and women in either dimension of the LABS i.e. no differences were apparent between men and women in their beliefs about shared and distributed leadership.

Identification and LABS scores

- The majority of participants in the study reported a strong professional identification, a strong team identification and a low level of threat to their professional identity.
- No significant association was found between the identification variables and participants' Hierarchical Thinking Dimension scores.
- A significant association was found between the strength of professional identification and the Systemic Thinking Dimension scores of participants when professional groups were examined together. Participants who reported the strongest professional identification were more likely to be assigned to the lower scoring LABS Systemic Thinking Dimension group than the high scoring group i.e. participants who reported the strongest professional identification were more likely to express the greatest level of agreement with shared leadership. While this pattern emerged for all five professional groups when they were analysed separately, these analyses did not reach the significance level of $p < .05$.
- A significant association was found between the strength of team identification and participants' Systemic Thinking Dimension scores. Participants who reported the strongest team identification were more likely to be assigned to the lower scoring LABS Systemic Thinking Dimension group than the high scoring group i.e. participants who reported the strongest team identification were more likely to express the greatest level of agreement with shared leadership.

The association between identification variables

- There was a significant positive association between professional identification and team identification. Participants who reported the strongest level of identification with their professions also reported the strongest level of identification with their teams.
- Threat to professional identity mediated the association between professional identification and team identification. For participants who reported the strongest identification with their professions, these individuals were more likely to report the strongest identification with their teams only when the level of professional threat was low.

Regression analysis

- Professional group (psychiatric nurses) explained 8% of the total variance in participants' categorised LABS Hierarchical Thinking Dimension scores.
- Familiarity with the Healthcare Leadership Model, gender and professional identification explained 15% of the variance in participants' categorised Systemic Thinking Dimension scores.

CHAPTER 5 - DISCUSSION

5.1 Key Findings

5.1.1 Summary of Findings

There were no significant differences between professional groups or men and women in the LABS scores of participants at the alpha level of $p < .05$. However, a non-significant trend emerged in the data. On average, clinical psychologists and consultant psychiatrists reported slightly higher scores in the Hierarchical Thinking Dimension of the LABS when compared with psychiatric nurses i.e. these professions reported a greater level of disagreement with hierarchical leadership statements when compared with psychiatric nurses. These differences may merit further investigation but they could also have occurred by chance.

No significant association was found between the identification variables and participants' Hierarchical Thinking Dimension scores at the level of $p < .05$. A significant association was found between the strength of professional identification and the Systemic Thinking Dimension scores of participants when all the professionals groups were examined together at the alpha level of $p < .05$. Participants who reported the strongest professional identification were more likely to express the greatest level of agreement with shared leadership. While this trend emerged for all five professional groups when they were analysed separately, these analyses did not reach the significance level of $p < .05$.

A significant association was found between the strength of team identification and participants' Systemic Thinking Dimension scores at the alpha level of $p < .05$. Participants who reported the strongest team identification were more likely to express the greatest level of agreement with shared leadership.

A significant positive association emerged between professional identification and team identification at the alpha level of $p < .05$. Participants who reported the strongest level

of identification with their professions also reported the strongest level of identification with their teams. Based on the same alpha level, significant associations emerged between the level of professional identity threat participants experienced and the strength of their team and professional identifications. Participants who reported the lowest level of threat to their professional identities also reported the strongest level of identification with their teams and professions.

These findings and their implications are discussed in greater detail in the following sections.

5.1.2 Professional Groups and Leadership Beliefs

The findings disconfirm the study's hypothesis that differences would emerge between professional groups in their beliefs about distributed and shared leadership. This is indicated by participants' scores in the Hierarchical Thinking Dimension of the LABS (distributed leadership) and the Systemic Thinking Dimension (shared leadership). The non-significant findings that emerged when comparing the LABS scores of professional groups are unlikely to reflect Type II errors since the reported effect sizes for these analyses were very small. In general, participants in the study expressed a moderate level of disagreement with statements supporting hierarchical leadership and a high level of agreement with statements supporting shared leadership.

The researchers hypothesised that allied health professionals would report statistically significantly higher scores in the Hierarchical Thinking Dimension of the LABS and statistically significantly lower scores in the Systemic Thinking Dimension when compared with other professions. In other words, it was predicted that allied health professionals would report a greater level of agreement with distributed and shared leadership. This hypothesis was not supported as no significant differences emerged between professionals in their LABS scores at the significance level of $p < .05$. This suggests that clinicians from a range of MDT

professions are in agreement with principles of shared leadership and provides important information about the likelihood of shared leadership being incorporated in practice. It also highlights that the presence of different professional groups in MDTs is not necessarily a barrier to clinicians holding positive views about shared leadership. This has clear implications for NHS leadership frameworks such as the CLCF and the Healthcare Leadership Model as the findings of the current study imply that healthcare clinicians' leadership views are aligned with these documents.

Previous research has highlighted that psychiatrists tend to work in a directive manner and adopt prominent leadership roles in MDTs (Johnson & Stern, 2013; Rosen & Callaly, 2005). This can sometimes be viewed negatively by other professionals who may perceive they have limited opportunities to contribute to team practices (Atwal & Caldwell, 2005; Nugus et al., 2010). This literature led the current researchers to hypothesise that psychiatrists would report a low level of agreement with shared leadership as this form of leadership could undermine their influence and status in MDTs. Contrary to this prediction, psychiatrists in the study reported a high level of agreement with shared leadership. This is an important finding as it suggests that psychiatrists hold leadership views that compliment shared decision making and collective leadership responsibilities in MDTs. This view contradicts the assertions proposed in a number of studies that have highlighted differences between psychiatrists and allied health professionals in their attitudes towards interprofessional working. These differences however have not been consistently documented in all research studies. Gair and Hartery (2001) found that psychiatrists encouraged an environment of shared decision making in their respective MDTs. Comparable findings have been reported in a number of other studies that have documented effective and collaborative working in healthcare teams (Hudson, 2002; Robinson & Cottrell, 2005). The current study enhances this literature as the findings indicate that the prominent leadership role that psychiatrists adopt in teams is not necessarily a barrier to this profession

agreeing with principles of shared and distributed leadership. On the contrary, psychiatrists' are likely to have an influential role in facilitating a climate of shared leadership in MDTs.

It should be pointed out that all of the psychiatrists in the study held consultant positions. This could have influenced the findings as consultant psychiatrists are likely to have prominent leadership responsibilities in MDTs and demonstrate a greater awareness of leadership policies / practices when compared with psychiatrists at less senior levels. These experiences could expose consultant psychiatrists to shared leadership practices and working collaboratively with other MDT professional since these practices are likely to promote a positive team climate. It remains a possibility that consultant psychiatrists could hold different leadership beliefs to trainee psychiatrists since the latter group frequently rotate placements during the course of their training and are potentially less likely than permanent team members to develop a strong team identification. This highlights a need to evaluate the leadership beliefs of psychiatrists from varying levels of seniority.

The finding that no differences emerged between professional groups in their leadership beliefs could be explained by the likely heterogeneity found in leadership functioning across different MDTs and services. This heterogeneity has been documented in previous research studies that have demonstrated that MDTs operate under different leadership structures, exhibit varying degrees of team participation and display diverse team objectives (West, 2002; West et al., 2003). It remains a possibility that participants' leadership beliefs could have been influenced by the leadership structures in their teams, in addition to their professional group membership. This point is speculative since the current study did not ask participants to evaluate the leadership functioning of their respective MDTs. However, the significant association that emerged between the strength of team identification and agreement with shared leadership potentially highlights the importance of team processes in influencing the leadership beliefs of clinicians.

5.1.3 Gender and Leadership Beliefs

The current researchers hypothesised that women would report statistically significantly higher scores in the Hierarchical Thinking Dimension of the LABS and significantly lower scores in the Systemic Thinking Dimension i.e. women would report a greater level of agreement with principles of distributed and shared leadership in comparison with men. These predictions were not supported as no significant difference emerged between women and men in either dimension of the LABS. This finding contradicts a wealth of previous research studies that have typically demonstrated key distinctions between women and men in their leadership styles and beliefs (Franklin, 1997; Leggat, 2007). In a general sense, women have been shown to favour interpersonal elements of leadership such as collaborative working and the promotion of moral values (Leggat, 2007; Radu & Nastase, 2011). This picture contrasts with men who tend to place a greater emphasis on charisma, organisation and decisiveness (Collinson & Hearn, 1996).

The sizeable differences outlined in the literature between men's and women's leadership views have not been replicated in the current study. This raises the possibility that mainstream gender leadership research is less applicable to healthcare settings. The findings of Barker's (2000) healthcare study provides support for this view as very few differences were highlighted between male and female managers in their leadership preferences and styles. The environment of healthcare could potentially minimise stereotypical gender divides as this setting is likely to attract individuals, both women and men, who value skills such as empathy, awareness, collaboration and commitment (Greenleaf et al., 1996). The LABS scores of women and men reported in the current study potentially affirm the relevance of these core values and skills to healthcare clinicians.

There may also be other factors that have led to the incongruence between the current study's findings and mainstream gender leadership research. Over half of the participants in the current study had received leadership training since being qualified in their professions.

It is possible therefore that leadership training could have resulted in professional groups and genders to become more homogenised in their leadership beliefs. Although research is accumulating on the beneficial effects of leadership training programmes (Boaden, 2006), the assertion that leadership training influences clinicians' beliefs is largely untested. The abundance of leadership theories and models in the literature has resulted in an inordinate number of leadership training programmes. Therefore, it cannot be assumed that clinicians who have undertaken leadership training will necessarily report similar leadership attitudes and beliefs. To evidence this point, the regression models in the current study did not find leadership training to be predictive of participants' scores in either dimension of the LABS.

A more persuasive explanation for the similarities between men's and women's leadership beliefs relates to the sample size of the current study. Only 59 men were recruited and this raises doubts about the representativeness of the male sample. In comparison, the author who developed the LABS, Wielkiewicz (2000), recruited 243 men and 309 women to his study. It remains a possibility that recruiting a higher number of men to the current study could have resulted in a different picture to emerge in the leadership beliefs of men and women.

5.1.4 Identification Variables and Leadership Beliefs

The current study found a negative association between the strength of professional identification and participants' Systemic Thinking Dimension scores. This association was found to be statistically significant at the level of $p < .05$ (actual p value obtained was $< .001$). Participants who expressed the strongest level of professional identification were more likely to be assigned to the lower scoring LABS Systemic Thinking Dimension group than the high scoring group i.e. participants who reported the strongest professional identification were more likely to express the greatest level of agreement with shared leadership. This provides partial support for social identity theory (SIT) and self-categorisation theory (SCT)

since these theories predict that clinicians' leadership beliefs will be associated with the strength of their group identifications and associated group norms. As the current researchers proposed differences in the group norms of distinct professional groups, the findings concerning the association between the strength of professional identification and the leadership beliefs of separate professions warrants exploration.

The current researchers predicted that allied health professionals (and social workers) who expressed a strong professional identification would report lower scores in the Systemic Thinking Dimension, when compared with allied health professionals who expressed a weaker professional identification. The rationale for this hypothesis was based on previous research that has shown allied health professionals value elements associated with shared leadership such as interprofessional collaboration and shared decision making (Cohen, 2003; Gair & Hartery, 2001). Therefore, it was predicted that allied health professionals and social workers who reported a strong identification with their professions would be highly likely to express norms congruent with these professions i.e. norms that compliment shared leadership.

The findings of the study did not confirm this hypothesis as the association between the strength of professional identification and allied health professionals' scores in the Systemic Thinking Dimension of the LABS did not reach statistical significance at the level of $p < .05$ (when analyses were completed separately for each profession). However, the same trend emerged for social workers and the two allied health professions (clinical psychologist and occupational therapists); participants who expressed the strongest identification with their professions reported the greatest level of agreement with shared leadership. These findings tentatively highlight the importance of SIT and SCT in influencing the leadership beliefs of healthcare clinicians since allied health professionals and social workers who identified strongly with their professions were more likely to report leadership beliefs congruent with expected professional norms i.e. agreement with shared leadership. This is consistent with previous studies in social psychology that have

demonstrated that individuals who identify strongly with a group will express beliefs highly concordant with the group's norms (Duck & Fielding, 1999; Hains et al., 1997; Plattow & van Knippenberg, 1999; Tajfel & Turner, 1979). This link however requires further examination in MDT healthcare settings as the association between the strength of professional identification and participants' Systemic Thinking Dimension scores did not reach statistical significance when analyses were completed separately for each profession. The incongruity between the significance of this association when analysing all participants in the study together compared with individual professions is likely to be attributable to the reduced sample size in the professional group analyses and the associated loss in power (i.e. Type II error). Alternatively, the statistically significant association demonstrated between participants' strength of professional identification and shared leadership beliefs could reflect a Type I error since a number of analyses were completed in the study. However, this suggestion appears unlikely since the association between the strength of professional identification and participants' shared leadership beliefs was also found to be significant in the regression model at the level of $p < .05$.

The current researchers hypothesised that psychiatrists who expressed a strong professional identification would report higher scores in the Systemic Thinking Dimension, when compared with psychiatrists who expressed a weaker professional identification. This prediction was based on the assertion that psychiatrists who reported a strong professional identification would be more likely to report group norms that contradicted shared leadership e.g. adopting a lead role in teams and taking responsibility for important decisions.

The findings of the current study however disconfirmed this hypothesis as no significant association was found between the strength of professional identification and consultant psychiatrists' Systemic Thinking Dimension scores. Although no significant association was demonstrated, the same pattern emerged for consultant psychiatrists as was the case for other professions; consultant psychiatrists who expressed the strongest

professional identification reported the greatest level of agreement with shared leadership. This finding presents a challenge in applying SIT and SCT since consultant psychiatrists who identified strongly with their profession appeared to display leadership beliefs that opposed expected group norms. However, the initial prediction for this association was based on the assumption that consultant psychiatrists' group norms would contradict shared leadership. The findings of the current study suggest that the leadership norms of consultant psychiatrists requires further investigation, not least because of research that has highlighted the collaborative nature of consultant psychiatrists' working practices in MDTs (Gair and Hartery, 2001; Robinson & Cottrell, 2005). In addition, predictions based on group norms are likely to underestimate the diversity found within distinct healthcare professions. There is evidence that individuals in a group will sometimes attempt to differentiate themselves from other members in the same group to aid social mobility and promote self-esteem (Kreindler, Dowd, Star & Gottschalk, 2012; Pratt & Rafaeli, 1997). This creates the possibility that the norms of healthcare professionals could be determined not only by the strength of professional group identification, but also by the particular subgroup in each profession they identify with.

No significant association was found between the strength of professional identification and psychiatric nurses' Systemic Thinking Dimension scores at the level of $p < .05$. However, the same trend emerged for psychiatric nurses as reported for other professions; psychiatric nurses who expressed the strongest professional identification reported the greatest level of agreement with shared leadership. Although no hypothesis was developed by researchers for this association, this trend implies that the group norms of psychiatric nurses are likely to compliment features of shared leadership. This statement corresponds with the description provided by Cleary, Horsefall, Deacon and Jackson (2011) who highlighted that mental health nurses favour leadership styles associated with transformation, collaborative working, sharing responsibilities and supporting colleagues.

No association was found between the strength of professional identification and participants' scores in the Hierarchical Thinking Dimension of the LABS. This result disconfirms the current researchers' predictions and contradicts the findings obtained in the Systemic Thinking Dimension. One possible explanation for this discrepancy concerns the content in each dimension of the LABS questionnaire. The Hierarchical Thinking Dimension primarily focuses on hierarchical leadership related to authority and control. These themes could attract greater uniformity in the responses from healthcare professionals when compared to non-healthcare populations, since clinicians are likely to disagree with principles that undermine clinical judgement and autonomy (Fiol, Pratt, and O'Connor 2009; Hekman, Steensma, Bigley & Hereford, 2009). In comparison, the Systemic Thinking Dimension could encourage greater diversity in the responses from clinicians as it features leadership items in a number of areas e.g. shared decision making, ethical issues and continued learning. This argument however is undermined by the greater variation observed in participants' scores in the Hierarchical Thinking Dimension when compared with the Systemic Thinking Dimension. The discrepancy between these dimensions warrants further examination.

A significant association was found between the strength of team identification and participants' Systemic Thinking Dimension scores at the level of $p < .05$. Participants who expressed the strongest team identification in the study also reported the highest level of agreement with shared leadership. This finding implies that a strong team identification in MDTs is associated with beliefs that compliment features of shared leadership. This conclusion is supported by Mitchell and colleagues' (2011) study. These authors found that healthcare clinicians who expressed a strong team identification reported a greater openness to teamwork and sharing knowledge. The limitations of survey research however mean that causation cannot be inferred. Although clinicians who identify strongly with their MDTs could be more open to interprofessional working since there is a motivation to maintain group cohesiveness, interprofessional working between professionals could result in clinicians

developing a strong identification with their teams. Irrespective of the direction of this relationship, the emergence of a collective team identification in MDTs is likely to negate the detrimental effects of interprofessional rivalry and professional boundaries (Hobman & Bordia, 2006). The current study provides an important insight into the leadership beliefs of healthcare professionals as the strength of clinicians' team identification is likely to influence their agreement with principles of shared leadership. This link needs to be examined in further studies since the statistically significant association demonstrated between participants' strength of team identification and shared leadership beliefs could reflect a Type I error. However, the odds ratios calculated for the association between team identification and shared leadership beliefs in the current study suggest that a moderate effect is evident for this association.

5.1.5 Identification Variables and Professional Threat

The current study demonstrated a positive association between the strength of professional identification and the strength of team identification at the significance level of $p < .05$. Healthcare professionals who expressed the strongest level of professional identification also expressed the strongest level of team identification. This finding compliments research that has shown it is possible for healthcare clinicians to report a strong identification with both their professions and MDTs (Baxter & Brumfitt, 2008; Swann et al., 2003). These findings also support the assertion in SCT that individuals can hold a number of identities simultaneously (Tajfel & Turner, 1986).

The majority of clinicians in the study reported their services had either undergone changes or were expecting to undergo changes. It was predicted that these service changes would lead to greater levels of professional identity threat, resulting in clinicians to seek a strong identification with their professions and a weak identification with their teams. The findings of the current study disconfirmed these predictions as the majority of clinicians

reported a strong identification with both their professions and their teams. These findings would appear to conflict with the predictions of SCT as this theory asserts that during times of perceived threat to group identities, individuals will seek a stronger identification with their own groups (i.e. professions) and widen the differentiation with perceived out-groups (Hogg, 2001). However, the service changes endemic across all five NHS trusts could have resulted in professionals seeking solidarity with team members. This raises the possibility that clinicians in different professional groups were not viewed as out groups, but rather as collective members of a team experiencing the same external threats. SIT and SCT could be reconciled with this view as these theories suggest that the salience of group membership will determine individuals' identification with groups (Hogg & van Knippenberg, 2004). Therefore, it is possible that team membership during times of uncertainty could become highly salient as clinicians will likely guard against threats from external sources (e.g. senior management, commissioners etc.).

The current researchers hypothesised that a negative association would emerge between the level of threat to professional identity and the strength of participants' identification with their teams. The findings of the current study support this hypothesis as participants who reported a higher level of professional identity threat were more likely to report a weaker team identification than the strongest team identification. This association was found to be significant at the level of $p < .05$ (exact p value obtained was $p < .001$). This result compliments findings documented in Mitchell and colleagues' (2011) study that explored the impact of team identification and professional threat on the effectiveness of MDTs. The current study however adds to the literature as the findings suggest that the positive association between professional identification and team identification is mediated by the level of professional threat clinicians' experience. Therefore, clinicians are unlikely to report the strongest level of identification with their teams unless the level of professional identity threat is low. As very few clinicians in the study reported a high level of professional

identity threat, no definitive statements can be made about the effects of this level of threat on the strength of clinicians' identification with their teams. However, based on the findings of the current study and previous research, it is probable that high levels of professional identity threat would be associated with weak team identifications. Overall, the findings of the current study highlight the crucial role that threat to professional identity plays in influencing the strength of clinicians' identification with their teams.

Contrary to the current researchers' hypothesis, a higher level of threat to professional identity was negatively associated with participants' strength of professional identification at the significance level of $p < .05$. Clinicians in the study who reported a higher professional threat level were more likely to report a weaker professional identification than the strongest professional identification. This appears to contradict elements of SIT and SCT as these theories propose that during periods of threat to group identification, individuals will seek a strong identification with salient groups (Hogg, 2001). However, SCT also proposes that individuals have the option of re-evaluating their membership with groups during periods of change. This raises the possibility that individuals will detach themselves from group membership if comparisons with other groups prove to be unfavourable (Haslam, 2004). Therefore, clinicians in the current study who reported a moderate to high level of professional identity threat could have been more likely to re-appraise the value of identifying with their professions. In situations where these comparisons prove to be unfavourable, these individuals are likely to report a weaker professional identification as there are fewer perceived benefits to group membership.

5.1.6 Regression Models

The regression models were developed to examine the effect of a number of variables on participants' categorised scores in both dimensions of the LABS. Professional group emerged as a significant predictor of participants' categorised Hierarchical Thinking

Dimension scores at the significance level of $p < .05$. More specifically, the profession 'psychiatric nursing' was associated with a reduced likelihood of being assigned to highest scoring LABS Hierarchical Thinking Dimension group. In other words, psychiatric nurses were less likely than other professions to report the greatest level of disagreement with hierarchical leadership statements. The validity of this finding is questionable since no statistically significant differences emerged between professionals groups in their LABS scores in the ANOVA tests completed in the study. This discrepancy could be due to the categorisation process that occurred for the regression analyses whereby participants' LABS scores were separated into 'high' and 'lower' scoring categories. Alternatively, the significant p value obtained in the regression model could reflect a false positive finding i.e. a Type I error.

Gender, professional identification and familiarity with the Healthcare Leadership Model emerged as significant predictors of participants' categorised Systemic Thinking Dimension scores at the significance level of $p < .05$. This reiterates the importance of professional identification in influencing the leadership beliefs of healthcare clinicians as evidenced in previous contingency table analyses (Fisher's exact tests). However, the validity of gender as a significant predictor of participants' leadership beliefs remains uncertain as no differences were found between men and women in their LABS scores in t -test analyses. This discrepancy could also be due to categorisation process that occurred for the regression analyses.

In total, professional identification, gender and familiarity with the Healthcare Leadership Model accounted for 15% of the total variance in participants' categorised Systemic Thinking Dimension scores i.e. shared leadership beliefs. This indicates that a significant amount of variance in participants' shared leadership beliefs was explained by factors not examined in the study. Leadership is a complex area and numerous factors are likely to influence the leadership beliefs of healthcare clinicians. Although 15% does not

appear hugely significant, this percentage reflects a reasonable finding when considering the vastness and complexity of the topic.

5.2 Implications and Recommendations for Clinical Practice

5.2.1 Leadership and Group Identification

In summary, participants who reported the strongest level of identification with their professions and teams were most likely to report the greatest agreement with shared leadership. This finding has a number of important clinical implications. Strategies that strengthen clinicians' dual identifications with their professions and teams are likely to promote a culture of shared leadership in healthcare. This would involve developing a shared identity based on the views and values of all team members (Van Der Vegt & Bunderson, 2005). Developing a collective team identity does not need to negate the importance of clinicians maintaining strong ties with their professions. Kreindler et al. (2012, p.362) highlight the importance of "acknowledging and valuing both a common superordinate identity and distinct sub group identities" in healthcare teams. An approach that values dual identities is likely to reduce healthcare professionals' concerns about the erosion of profession specific roles in MDTs.

Developing a collective team identity in MDTs will present a number of challenges. Numerous research studies have outlined the difficulties in developing a shared team identity in teams where professional hierarchies are apparent (Farrell, Schmitt, & Heinemann 2001; Nembhard & Edmonson, 2006; Rutherford & McArthur, 2004). The current study has demonstrated the negative association between the level of professional identity threat clinicians experience and the strength of team identification (Mitchell et al., 2011). This highlights the importance of considering context when evaluating which strategies to use to enhance team identification. Rather than creating a blanket response to the challenge of

professional hierarchies in MDTs, a sensitive and detailed assessment of the situation will be required to inform how best to proceed (Haslam, 2004). Research studies in healthcare settings have outlined the benefits of reflective groups in MDTs to help team members resolve conflict and develop new working practices (Bleakley, Boyden, Hobbs, Walsh & Allard, 2006). Theorists in the field of organisational psychology have outlined the importance of normalising disagreements between team members and viewing conflict as a vehicle for change (Eggins, Haslam & Reynolds, 2002; Haslam, Eggins & Reynolds, 2003). These approaches aim to give clinicians a platform to air their thoughts openly and express both intergroup and intragroup identities (Hornsey & Hogg, 2000). It is important that such discussion is facilitated by skilled individuals who encourage the views of all team members and can contain emotions when they are in danger of being counter-productive.

Participants in the current study expressed a strong identification with their MDTs despite the widespread service changes observed in the five NHS trusts. Although this highlights the possibility that clinicians will seek unity with team members during unsettled periods, it cannot be concluded that all clinicians will respond in this manner. The service changes / restructures which are common place in the NHS are likely to evoke a degree of uncertainty in healthcare professionals (Hotho, 2008). This presents numerous challenges in fostering a collective team identification in MDTs as a number of teams are likely to be in their infancy in terms of their socialisation processes. At a macro level, senior managers and commissioners have a role to play in ensuring that clinicians feel involved in the “transformation of health services” (Leadership Academy, CLCF, 2011, p.6). Involving frontline clinicians in the development of services not only compliments the key principles of shared and distributed leadership, but it provides clinicians the opportunity to shape services / teams in a manner that accords with their own professional and personal values (O’Donohue & Nelson, 2007).

5.2.2 Leadership and Professional Group Membership

The findings of the current study suggest that the presence of different professional groups in MDTs is unlikely to provide a barrier to implementing shared and distributed leadership, particularly when clinicians identify strongly with both their teams and professions. Should these findings be replicated or expanded, this research would inform the development and implementation of leadership training programmes in the NHS. Research in leadership development has proposed the need for a paradigm shift; moving from individual models of learning that focus on developing leaders towards a model that views leadership as a relational process (Fulmer, 1997; Hartley & Hinksman, 2003). The leadership beliefs expressed in the current study suggest that training models based on shared and distributed leadership would complement the views of healthcare clinicians. Leadership training should not be confined to one model since this would likely undervalue the complexity of leadership and ignore the benefits of traditional leadership programmes. Rather, Boaden (2006) highlights the importance of leadership being viewed as a developmental process which evolves continually in organisations.

Historically, leadership development has been viewed as “ad hoc and incoherent” in the NHS (Department of Health, 2000). The NHS Leadership Centre has sought to address these issues by developing a number of leadership programmes and raising awareness of leadership frameworks (Boaden, 2006). In the current study, familiarity with the Healthcare Leadership Model was found to be predictive of clinicians’ shared leadership beliefs. This highlights the potential benefits of the Healthcare Leadership Model in influencing the leadership views of clinicians. However, the finding that a number of clinicians in the current study were unfamiliar with the CLCF and Healthcare Leadership Model suggests that further work is required in the promotion of these frameworks.

The current study focused on the leadership beliefs of qualified clinicians. However, the attitudes and practices of healthcare clinicians are believed to be shaped by socialisation

processes that occur throughout training (Cameron, 2011). Although the current study did not report differences between professional groups in their leadership beliefs, previous research has noted that intergroup differentiation can lead to difficulties in joint working and collaboration between healthcare professionals (Lidskog, Lofmark & Alhstrom, 2008). These difficulties would overtly undermine principles of shared and distributed leadership in healthcare teams. Therefore, attempts to foster strong links between students from different healthcare courses could promote a climate of interprofessional working prior to qualification. The benefits of interprofessional training have been mixed when applied in clinical settings (Humphris & Hean, 2004; Zwarenstein & Reeves, 2006). More promising findings have emerged with healthcare student populations. Research in this setting has found that interprofessional education (IPE) programmes have been associated with improvements in collaborative skills (Hammick, Freeth, Koppel, Reeves & Barr, 2007) and an enhanced understanding of professional roles (Freeth, Hammick, Reeves, Koppel & Barr, 2005).

IPE programmes rely on principles of learning and group contact to facilitate collaboration between professional groups (Kreindler et al., 2012). These principles alone may prove insufficient to influence the strength and salience of healthcare students' identification with the wider interprofessional group. Additional interprofessional strategies are likely to be required in order for healthcare students to experience a greater connection with their healthcare colleagues. One additional strategy is problem-based learning, which as a method encourages students to find solutions to clinical / real life problems whilst negotiating the challenges of group processes (Hung, Jonassen & Liu, 2008). Research is accumulating on the benefits of incorporating problem-based learning (PBL) as a means to encourage collaborative working between healthcare students (Barr, 2009; Goelen, De Clercq, Huyghens & Kerckhofs, 2006). From a leadership perspective, topics related to shared leadership could be discussed in interprofessional PBL groups or within debating

teams. This would allow students the opportunity to work collaboratively with peers from different professions, whilst offering experiences of developing dual identifications with their training professions and the wider group of healthcare students.

5.3 Limitations of the Study

There are some limitations with the study that need to be highlighted. The majority of participants in the study reported a strong identification with both their professions and teams, in addition to a low level of professional threat. This raises the possibility that the sample was not entirely representative of all MDT clinicians in the East of England, but rather reflective of a subgroup of clinicians who felt secure in their teams and interested in completing a survey about leadership. The findings of the current study therefore cannot be generalised to clinicians who report weak identifications with their professions and teams. In addition, only clinicians from MDTs in the East of England were included in the study. This limits the extent to which generalisations can be made about clinicians' leadership beliefs outside of this geographical area. These issues highlight the need to complete further research across the UK. This research would benefit from including clinicians who feel less engaged with the topic of leadership and who report a weaker identification with their teams. Issues around sample representativeness are commonly encountered in survey research, particularly when recruitment relies on people being interested and motivated to participate in the study.

Although this cannot be verified, it is likely that a number of participants in the study were known to the Chief Investigator through his previous work in MDTs. This raises the possibility of response bias in some participants as they could have provided responses they perceived as more desirable or congruent with the views of wider healthcare professionals. However, the current researchers aimed to minimise this potential bias by preserving

anonymity and ensuring recruitment strategies were applied consistently across the five NHS trusts.

The main questionnaires featured in the study have been validated in business and organisational settings. However, the LABS questionnaire has not been previously applied in healthcare settings and may lack a degree of sensitivity in exploring the leadership beliefs of healthcare clinicians. Further evaluation is required to validate the LABS in this setting to examine its construct validity and convergent validity with other measures.

The measures of professional / team identification and professional threat were adapted from existing measures in the literature (Brown et al., 1986; Ethier & Deaux, 1990). Although these measures have reported high levels of reliability and validity in social psychology, they have been applied less frequently in healthcare settings. In addition, the current authors adapted the Brown and colleagues' (1986) group identification questionnaire by reducing the number of items from 10 to 5. This had practical implications for the analyses of participants' professional and team identification scores as the data could not be considered as existing on an interval scale. Participants' responses on identification and threat measures were therefore divided into binary categories of scores that fell above and below the median. Although this was a necessary procedure for the purpose of statistical analyses, treating participants' identification scores as categorical data meant that correlation analyses could not be undertaken (in addition, the data did not display a monotonic relationship). The current researchers were therefore unable to demonstrate linearity in the association between the strength of professional / group identification and clinicians' leadership beliefs. In developing surveys, there is always a trade-off between the selection of detailed questionnaires and the time required to complete these questionnaires. As the LABS features 28 items, it was decided to use shorter group identification questionnaires to increase the likelihood of participants completing the survey. This decision is likely to have contributed to the respectable number of participants recruited to the study.

A high number of analyses were undertaken to test the study's main hypotheses and to ascertain the effects of numerous variables on clinicians' leadership beliefs. Completing a high number of analyses increases the probability of making Type I errors i.e. reporting false positives. It remains a possibility that certain findings in the study could have occurred by chance, particularly for findings where the p values were equal or close to .05. Selecting a more stringent alpha level, e.g. $p < .01$, would have resulted in some findings to be reported as non significant e.g. the association between team identification and participants' LABS scores in the Systemic Thinking Dimension. However, choosing a more stringent alpha level would have also increased the probability of making a Type II error, particularly for analyses that featured smaller group sizes. A number of results in the study demonstrated p values that were equal to or lower than .001 e.g. the association between professional identification and Systemic Thinking Dimension scores and the association between team identification and professional threat. The p values obtained for these findings suggest that they are unlikely to have occurred by chance. In addition, the effect sizes reported for these associations, in the form of odds ratios, suggests that these specific findings offer both statistical and practical significance.

A final point needs to be made about the inconsistent association between attitudes and behaviours. Although participants in the study expressed favourable attitudes / beliefs towards shared and distributed leadership, this does not necessarily mean that they incorporate these forms of leadership in their working practices. Research in social psychology has highlighted the complexities involved in the relationship between attitudes and behaviours (Fishbein & Ajzen, 2005). A number of moderating variables have been found in influencing the predictive validity of attitudes on people's behaviours. These variables include personality, self-monitoring skills, situational factors and the characteristics of the expressed attitudes (Gangestad & Snyder, 2000; Jamieson & Zanna, 1989).

5.4 Suggestions for Further Research

The current study represents a promising first step in exploring the leadership beliefs of healthcare clinicians through the lens of SIT and SCT. Further research is needed that builds on the existing study as this would strengthen the link between group identification and clinicians' beliefs about shared leadership. This research should not be merely confined to leadership beliefs but ideally needs to evaluate the leadership practices of clinicians.

With the benefit of hindsight, the current researchers would have altered some aspects in undertaking the study. Firstly, it would have been useful to recruit social workers and other professionals (e.g. art therapists, psychotherapists, counsellors etc.) at the start of the recruitment process. This would have likely increased the number of participants recruited to the study and allowed for a greater number of professional groups to be analysed. Secondly, the current study did not ascertain clinicians' views of the leadership climate operating in their MDTs i.e. whether this climate was conducive to shared and distributed leadership. Examining this area would have enabled researchers to analyse the association between clinicians' leadership beliefs and the leadership climate of their teams. Lastly, researchers would have attempted to minimise the number of analyses between professional groups on factors outside of leadership beliefs and group identification. This would have minimised the likelihood of making Type I errors and allowed researchers to interpret p values close to or equal to .05 with greater confidence.

A quantitative design was used in the current study to explore the influence of group identification on the leadership beliefs of healthcare professionals. Subsequent research could build on these foundations and examine the manner in which clinicians would like leadership to be shared and distributed, in addition to the specific processes that underlie clinicians' identifications with their professions and teams. The vastness and complexity of leadership as a construct encourages the application of multiple methodological designs and different epistemological positions. Qualitative research that explores the leadership beliefs

of healthcare clinicians could provide a richer understanding of the area and elucidate subtle distinctions between professional groups and genders. This form of research is also likely to aid quantitative designs. For example, holding focus groups with a number of MDT clinicians would inform the development of leadership and group identification questionnaires that are sensitive to healthcare settings.

Holding focus groups with a mix of clinicians from different professions potentially mimics the group processes that occur in MDTs. This design would allow researchers to explore both the content of discussion about leadership and the group interactions that occur between professionals. This research does not need to be confined to newly formed focus groups. Additionally, the enquiry of leadership beliefs and group identification could be focused on existing MDTs. A number of research studies have explored the interprofessional practices and roles of clinicians in established healthcare teams (Brown, Crawford & Darongkamas, 2000; Gair & Hartery, 2001; Robinson & Cottrell, 2005). These studies have incorporated a variety of qualitative methods including individual interviews with clinicians, focus groups and observations at team meetings. These modes of enquiry present an opportunity to explore the leadership practices of clinicians in situ.

Previous leadership studies in business settings have examined the influence of reciprocal networks between team members in influencing the leadership functioning and service outcomes of organisations (Carson et al., 2007; Pearce & Conger, 2003). This framework encourages all members of a team to rate the extent to which their colleagues are involved in the leadership processes of the service. Team members' responses are summed and this score is divided by the total number of relationships in the team to provide an overall indication of shared leadership functioning (Sparrowe, Liden, Wayne & Kraimer, 2001). This approach could be supplemented with team performance and patient outcomes to examine the effects of shared leadership on the functioning of healthcare teams.

5.5 Concluding Remarks

The existing study has tested the theoretical implications of SIT and SCT in influencing the leadership beliefs of healthcare clinicians. In doing so, the current researchers have highlighted the potential important link between the strength of clinicians' identification with their teams / professions and their leadership beliefs. This link has been demonstrated in business and academic settings, but represents an interesting finding in healthcare. This link requires further examination in a healthcare environment. Interventions aimed at strengthening dual team and professional identities are likely to promote agreement with principles of shared leadership in MDTs. In line with this aspiration, the existing study has demonstrated the importance of perceived threat to professional identity in mediating the positive relationship between professional identification and team identification.

There are likely to be a number of challenges involved in fostering a collective team identification in MDTs, particularly in NHS trusts and services that are undergoing restructuring and cuts. Reflective team practices and interventions that enable open communication between professionals could help to instil a collective sense of 'us' in healthcare teams. Implicit in this approach would be the promotion of both professional and team identities.

Healthcare clinicians in the current study expressed a high level of agreement with principles of shared leadership. Therefore, leadership frameworks in the NHS that promote values of shared leadership are likely to be congruent with the beliefs and attitudes of healthcare clinicians. There is an opportunity to develop this finding by examining the association between clinicians' leadership beliefs and their leadership practices, in addition to the influence that different leadership cultures can exert on team functioning in MDTs. Quantitative surveys designs could be supplemented with qualitative research methods that explore clinicians' leadership views and identification with groups in greater depth.

The complexity of leadership encourages the use of multiple methods and epistemological positions to further our understanding in the area. SIT and SCT have scarcely been incorporated in healthcare settings. This situation should not be viewed in negative terms, but rather as an exciting opportunity to apply an extensive set of theories and models to healthcare in the future.

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APPENDIX A

The Leadership Attitudes and Beliefs Scale (Wielkiewicz, 2000)

*Leadership Attitudes and Beliefs*TABLE 5.
The LABS-III Items

1	Individuals need to take initiative to help their organization accomplish its goals.
2	Leadership should encourage innovation.
3	A leader must maintain tight control of the organization.
4	Everyone in an organization needs to be responsible for accomplishing organizational goals.
5	Leadership processes involve the participation of all organization members.
6	A leader must control the group or organization.
7	A leader should maintain complete authority.
8	A leader should take charge of the group.
9	Organizational actions should improve life for future generations.
10	The main task of a leader is to make the important decisions for an organization.
11	Leadership activities should foster discussions about the future.
12	Effective leadership seeks out resources needed to adapt to a changing world.
13	The main tasks of a leader are to make and then communicate decisions.
14	An effective organization develops its human resources.
15	It is important that a single leader emerges in a group.
16	Members should be completely loyal to the designated leaders of an organization.
17	The most important members of an organization are its leaders.
18	Anticipating the future is one of the most important roles of leadership processes.
19	Good leadership requires that ethical issues have high priority.
20	Successful organizations make continuous learning their highest priority.
21	Positional leaders deserve credit for the success of an organization
22	The responsibility for taking risks lies with the leaders of an organization.
23	Environmental preservation should be a core value of every organization.
24	Organizations must be ready to adapt to changes that occur outside the organization.
25	When an organization is in danger of failure, new leaders are needed to fix its problems.
26	An organization needs flexibility in order to adapt to a rapidly changing world.
27	Leaders are responsible for the security of organization members.
28	An organization should try to remain as stable as possible.

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APPENDIX B

Group Identification Measure (Brown et al., 1986)

1. I am a person who considers the group important.
2. I am a person who identifies with the group.
3. I am a person who feels strong ties with the group.
4. I am a person who is glad to belong to the group.
5. I am a person who sees myself as belonging to the group.
6. I am a person who makes excuses for belonging to the group.
7. I am a person who tries to hide belonging to the group.
8. I am a person who feels held back by the group.
9. I am a person who is annoyed to say I'm a member of the group.
10. I am a person who criticizes the group.

Please Note. Items are presented in random order. Each item is answered on the following five-point scale: Never, Seldom, Sometimes Often, and Very often. The scores for the last five items are reversed to give a possible range of 10-60 for the whole scale.

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APPENDIX C

Perceived Threat Scale (Ethier & Deaux, 1990)

1. I feel I have to change myself to fit in at school.
2. I try not to show the parts of me that are ethnically based.
3. I often feel like a chameleon, having to change my colours depending on the ethnicity of the person I am with.
4. I feel that my ethnicity is incompatible with the new people I am meeting and the new things I am learning.
5. I cannot talk to my friends at school about my family or my culture.
6. I cannot talk to my family about my friends at school or what I am learning in school.

Please note: Each item is rated on a seven point likert scale from 1 (not at all) to 7 (a great deal). A maximum score of 42 is available on the Perceived Threat Scale.

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APPENDIX D

Complete Version of the Survey Used in the Study

Section 1) Team setting and professional role

Please answer the following questions by ticking the relevant response options.

Q1. Do you currently work in a community multi-disciplinary team (MDT) in any of the following settings?

- Adult
- Child / adolescent
- Learning disabilities (adult)
- Learning disabilities (child and adolescent)
- Older adult
- Non age specific
- I do not work in a community MDT
- Other

Q1b. If you responded 'Other' in the previous question, please specify the setting you work in:

Q2. Does the community MDT you work in involve any of the following broad areas?

- Mental health (e.g. CAMHS, CMHT, Community Learning Disability Team, Older Adult CMHT, Early Intervention Team, Crisis Team, Eating Disorders service etc.)
- Neurodevelopmental
- Neuropsychological / Neuropsychiatric
- Drug and alcohol
- Clinical health
- Other

Q2b. If you responded 'Other' in the previous question, please specify the area of clinical practice you work in:

Q3. What is your professional role?

- Art Therapist
- Clinical Psychologist
- Consultant Psychiatrist
- Drama Therapist
- Family Therapist
- Occupational Therapist
- Psychiatric Nurse or equivalent
- Psychiatry Trainee
- Psychotherapist
- Speech and Language Therapist
- Social Worker
- Other

Q3c. If you responded 'Other' in the previous question, please specify your professional role:

Q4. Approximately, what duration of time have you been qualified in your profession?

- Less than one year
- Between one year and 5 years
- Between five years one month and 10 years
- Between 10 years one month and 15 years
- Between 15 years one month and 20 years
- Over 20 years

Section 2) General demographic questions

Please answer the following questions by placing a tick in the relevant response options.

Q5 What is your gender?

- Female
- Male
- Other
- Rather not say

Q6 Based on NHS' Agenda for Change, what is your banding / staff grade?

- 5
- 6
- 7
- 8a
- 8b
- 8c
- 8d
- 9
- Agenda for change scale not applicable to me
- Rather not say

Q7. What is your highest level of qualification?

- Honours Degree
- Master's Degree
- Doctorate in Medicine or psychiatry equivalent
- Doctorate (e.g. PhD, DClinPsy, DRes etc.)
- Diploma
- Other

Q7 b. If you selected 'Other', please specify your highest level of qualification:

Section 3) Service, team and job role information

Please answer the following questions by placing a tick in the relevant response options.

Q8. Including you, approximately how many clinical members of staff work in the MDT you are based in?

If you work in more than one MDT, please select one of these MDTs to answer this question and try to keep this team in mind when answering the remaining questions in the survey.

- 5 or fewer
- Between 6 and 10
- Between 11 and 15
- Between 16 and 20
- Over 20

Q9. Approximately how many different professional groups / professions are there in the MDT you are based in?

- 2 or fewer
- Between 3 and 4
- Between 5 and 7
- 8 or higher

Q10. Approximately, what duration of time have you been working in the MDT?

- Less than one year
- Between one to two years
- Between two years one month and five years
- Between five years one month and 10 years
- Between 10 years one month and 15 years
- Over 15 years

Q11 Does your job role involve any of the following managerial responsibilities?

- Providing clinical supervision
- Providing management supervision
- Resource and budget management duties
- Service evaluation responsibilities
- Service development responsibilities
- Team leader
- Other
- None of the above

Q11b. If you responded 'Other' in the previous question, please specify the managerial responsibility below:

Section 4) Knowledge and experiences of leadership

Please read each of the statements below and place a tick in the relevant response options.

Q12. My knowledge and understanding of clinical leadership is:

- Very poor (1)
- Poor (2)
- Average (3)
- Good (4)
- Excellent (5)

Q13. My confidence to display leadership skills in my working practices is:

- Very low (1)
- Low (2)
- Neither high nor low (3)
- High (4)
- Very high (5)

Q14. I have opportunities to display leadership skills in my working practices.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Often (4)
- Always (5)

Q15. Since qualifying in your profession, have you received training on leadership / clinical leadership?

- Yes
- No

Q15b. If you responded 'Yes' in the previous question, please specify the type of training you received:

Q16 How familiar are you with the leadership competencies listed in the following NHS documents:

	Very familiar (1)	Familiar (2)	Neither familiar nor unfamiliar (3)	Unfamiliar (4)	Very unfamiliar (5)
The Clinical Leadership Competency Framework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Healthcare Leadership Model	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 5) Team identification

The following questionnaire has been adapted from Brown and colleagues (1986). Permission has been provided by the authors to use and make slight amendments to the questionnaire.

Q17. Please rate your agreement with the statements below by placing a tick in the relevant response options. The word 'team' refers to the MDT you work in.

	Never (1)	Seldom (2)	Sometimes (3)	Often (4)	Very often (5)
I consider my team important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I identify with my team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am glad to belong to my team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel strong ties with my team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see myself as belonging to my team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 6) Leadership views

The following statements are taken from the Leadership Attitudes and Beliefs Scale (Wielkiewicz, 2000). Permission has been granted by the author to use the questionnaire and make small amendments.

Please rate your agreement with the statements below by placing a tick in the relevant response options.

	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly Disagree (5)
Q18. Individuals need to take initiative to help their team accomplish its goals.					
Q19. Leadership should encourage innovation.					
Q20. A leader must maintain tight control of a team.					
Q21. Everyone in a team needs to be responsible for accomplishing team goals.					
Q22. Leadership processes involve the participation of all team members.					
Q23. A leader must control the team.					
Q24. A leader should maintain complete authority.					
Q25. A leader should take charge of the team.					

LABS questionnaire continued...

	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly Disagree (5)
Q26. Team actions should improve life for future team members.					
Q27. The main task of a leader is to make the important decisions for the team.					
Q28. Leadership activities should foster discussions about the future.					
Q29. Effective leadership seeks out resources needed to adapt to a changing world.					
Q30. The main tasks of a leader are to make and then communicate decisions.					
Q31. An effective team develops its human resources.					
Q32. It is important that a single leader emerges in a team.					
Q33. Members should be completely loyal to the designated leaders of a team.					
Q34. The most important members of a team are its leaders.					
Q35. Anticipating the future is one of the most important roles of leadership processes.					

LABS Questionnaire cont...

	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly Disagree (5)
Q36. Good leadership requires that ethical issues have high priority.					
Q37. Successful teams make continuous learning their highest priority.					
Q38. Positional leaders deserve credit for the success of a team.					
Q39. The responsibility for taking risks lies with the leaders of a team.					
Q40. Environmental preservation should be a core value of every team.					
Q41. Team members must be ready to adapt to changes that occur outside of the team.					
Q42. When a team is in danger of failure, new leaders are needed to fix its problems.					
Q43. A team needs flexibility in order to adapt to a rapidly changing world.					
Q44. Leaders are responsible for the security of team members.					
Q45. A team should try to remain as stable as possible.					

Section 7) Professional identification

The following questionnaire from Brown and colleagues (1986) was used previously in the survey to ask about your identification with your MDT. The same questionnaire is used to ask about your identification with your profession.

Q46. Please rate your agreement with the statements below by placing a tick in the relevant response options.

	Never (1)	Seldom (2)	Sometimes (3)	Often (4)	Very often (5)
I consider my profession important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I identify with my profession.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am glad to belong to my profession.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel strong ties with my profession.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see myself as belonging to my profession.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 8) Profession and multi-disciplinary working

The following items are adapted from a measure developed by Ethier and Deaux (1990). Permission has been granted by the authors to make amendments to the questionnaire.

Q47. Please rate your agreement with the statements below by placing a tick in the relevant response options. 'Team' refers to the MDT you work in.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
I think that my professional identity is incompatible with the identities of other team members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel pressure to change my professional approach to fit in with the rest of the team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that my professional values are at odds with the values of other professions in the team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid showing the parts of me that are connected to my profession to other team members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that my profession is under-valued within the team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q48. If you have any comments about the position of your profession within the MDT, please include these in the space provided below:

Q49. If you have any other comments you would like to make about leadership in MDTs, please include these in the space provided below:

Section 9) Service and team changes (Final section)

Please read the following questions and place a tick in the relevant response options.

Q50. Within the past 12 months, has the team you work in experienced any of the following:

- Staff cuts / redundancies
- Team manager / leader changes
- Manager changes at a senior level
- Team mergers
- Takeover by a new trust
- None of the above
- Other

Q50b. If you selected 'Other' in the previous question, please provide further information about the change/s your team has undergone:

Q51 In the upcoming 12 months, are you expecting the team you work in to experience any of the following?

- Staff cuts / redundancies
- Team manager / leader changes
- Manager changes at a senior level
- Team mergers
- Takeover by a new trust
- None of the above
- Other

Q51b. If you selected 'Other' in the previous question, please provide further information about the change/s you expect will occur in your team/s:

END OF QUESTIONNAIRE

APPENDIX E

Information Sheet for Participants

Title of study: The leadership beliefs of Multi Disciplinary Team (MDT) clinicians.

The research is being completed as part of my Doctorate in Clinical Psychology (DClinPsy) at the University of Hertfordshire. Ethical approval for this study has been provided by the University of Hertfordshire.

Information about the study

While there is currently a great deal of interest in the topic of Clinical Leadership in healthcare settings, little is known about the leadership views of mental health professionals. This study wishes to address this issue by ascertaining your views related to leadership by asking you to complete an online survey. The researchers of the study are also interested in examining aspects of leadership related to Multi-Disciplinary Teams (MDTs) and incorporating the opinions of various mental health professionals.

Eligibility information

In order to be eligible to complete the survey you need to be a qualified mental healthcare clinician working in a community MDT.

Implications for taking part in the survey

If you decide to take part you will be transferred to a page asking for your consent. Following this, you will be asked to provide some basic individual and team demographic information. You will then be guided through some brief sections that will explore your views about leadership and your team. Questions in the survey frequently take the form of statements where you will be asked to rate your agreement by selecting responses on a scale.

The survey usually takes approximately 10 minutes to complete.

Withdrawing from the study

Participation in this study is voluntary and you are free to withdraw at any point.

Potential benefits and disadvantages of taking part

By completing the survey you will contribute to developing the knowledge base of mental health professionals' leadership views. It is not anticipated that you will experience any emotional ill effects from taking part.

Use of data

Researchers will analyse the data to explore potential similarities and differences between the leadership views of MDT professionals. The analysis will feature in the write up of the Chief Investigator's Major Research Project as part of his doctoral research in Clinical Psychology. A version of the Major Research Project will be submitted for publication in journals.

Confidentiality and anonymity

The responses you provide in the survey will be anonymous as you will not be asked for your name or employer's details. The data you provide will not be analysed individually and will form part of a larger data set. The data that are collected will be securely stored on Qualtrics and in password protected spreadsheet documents. Only the Chief Investigator and Main Research Supervisor will have access to the data. The data will be kept at the University of Hertfordshire for a period of three years. Following this, the data will be destroyed.

Research accordance

This research is undertaken in accordance with the BPS Code of Human Research Ethics. (British Psychological Society, 2010). Appropriate supervision is in place and this is compliant with professional guidelines (BPS 2009, HCPC 2009).

Contact information

Chief Investigator: Craig Forsyth, University of Hertfordshire, c.forsyth@herts.ac.uk.

Principal Research Supervisor: Dr. Barbara Mason, University of Hertfordshire, b.l.mason@herts.ac.uk.

If you have any complaints or concerns about any aspect of the way you have been approached or treated during the course of this study, please contact the University's Secretary and Registrar, Sue Grant, on 01707 284032.

APPENDIX F

Consent Form

Please answer the following questions by placing a tick in each response option.

I am aware that I can contact the researchers if I have any questions about the study.

Yes

I am aware that I can withdraw from the study at any point without having to offer any explanation (until my data is submitted).

Yes

I understand that the responses I provide will be anonymous and will form part of a larger data set.

Yes

I understand that this data set will be analysed and written up as part of the Chief Investigator's Doctorate in Clinical Psychology and will be submitted for journal publication.

Yes

I understand that the information I provide will be kept securely on a protected server or in a locked storage cabinet. Only the Chief Investigator and Principal Research Supervisor will have access to the data.

Yes

I agree that I have understood the comments above and give my consent to take part in the study.

Yes

APPENDIX G

Debrief Sheet for Participants

Please read the debrief form below before submitting your responses to the survey.

Full title of the study

The impact of professional and team identification on the leadership beliefs of Multi-Disciplinary Team (MDT) clinicians.

Aims of the study

This study aims to explore potential differences between multi-disciplinary team professionals in relation to their attitudes and beliefs about shared leadership. Previous research has reported differences between professional groups in MDTs in relation to their attitudes, working practices and communication styles (Freeman et al., 2000; Cohen, 2003; Sheehan et al., 2007). This present study therefore is examining whether these proposed differences are relevant in the area of clinical leadership.

The study also aims to examine the relationship between the strength of professional identification / team identification and the leadership beliefs of clinicians. Researchers are interested in exploring whether a strong professional identification reported by clinicians is associated with leadership beliefs and attitudes consistent with the norms of their own professional groups.

Online survey

Detailed aims of the study were not provided to you prior to completing the survey as researchers were concerned it would have biased the responses you provided. It is worth reiterating that the responses participants provide are anonymous and all results will be published as group data.

If after reading this debrief sheet you feel uncomfortable about your responses being used in the data set, you can exit the survey. **We hope however that you choose to submit your responses by clicking on the arrow at the bottom of the page.**

Further information

If you would like information about the results of the study once it is completed, please contact the following individuals:

Chief Investigator:

Craig Forsyth, c.forsyth@herts.ac.uk.

Principal Research Supervisor:

Dr. Barbara Mason, University of Hertfordshire, b.l.mason@herts.ac.uk.

Thank you for completing the survey.

APPENDIX H

Ethical Approval Form

**UNIVERSITY OF HERTFORDSHIRE
HEALTH & HUMAN SCIENCES****ETHICS APPROVAL NOTIFICATION****TO** Craig Forsyth**CC** Dr Barbara Mason**FROM** Dr Richard Southern, Health and Human Sciences ECDA Chairman**DATE** 23/9/14Protocol number: **LMS/PG/UH/00286**

Title of study: Exploring the impact of professional and team identification on the leadership beliefs of Multi-Disciplinary Team (MDT) Clinicians

Your application for ethical approval has been accepted and approved by the ECDA for your school.

This approval is valid:

From: 1/10/14

To: 28/2/15

Please note:

Approval applies specifically to the research study/methodology and timings as detailed in your Form EC1. Should you amend any aspect of your research, or wish to apply for an extension to your study, you will need your supervisor's approval and must complete and submit form EC2. In cases where the amendments to the original study are deemed to be substantial, a new Form EC1 may need to be completed prior to the study being undertaken.

Should adverse circumstances arise during this study such as physical reaction/harm, mental/emotional harm, intrusion of privacy or breach of confidentiality this must be reported to the approving Committee immediately. Failure to report adverse circumstance/s would be considered misconduct.

Ensure you quote the UH protocol number and the name of the approving Committee on all paperwork, including recruitment advertisements/online requests, for this study.

Students must include this Approval Notification with their submission.

APPENDIX I

Assumptions of Normality and Equal variances:
LABS Hierarchical Thinking Dimension Scores

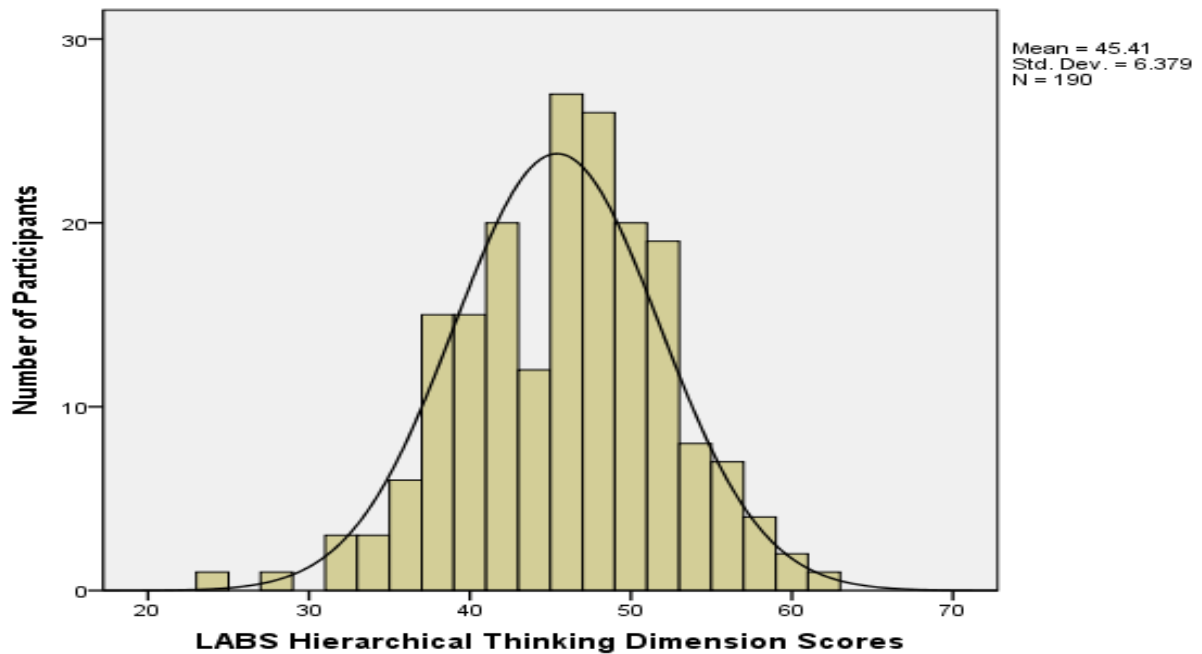


Figure 8. A histogram showing the spread of participants' LABS Hierarchical Thinking Dimension scores for the five largest professional groups in the study.

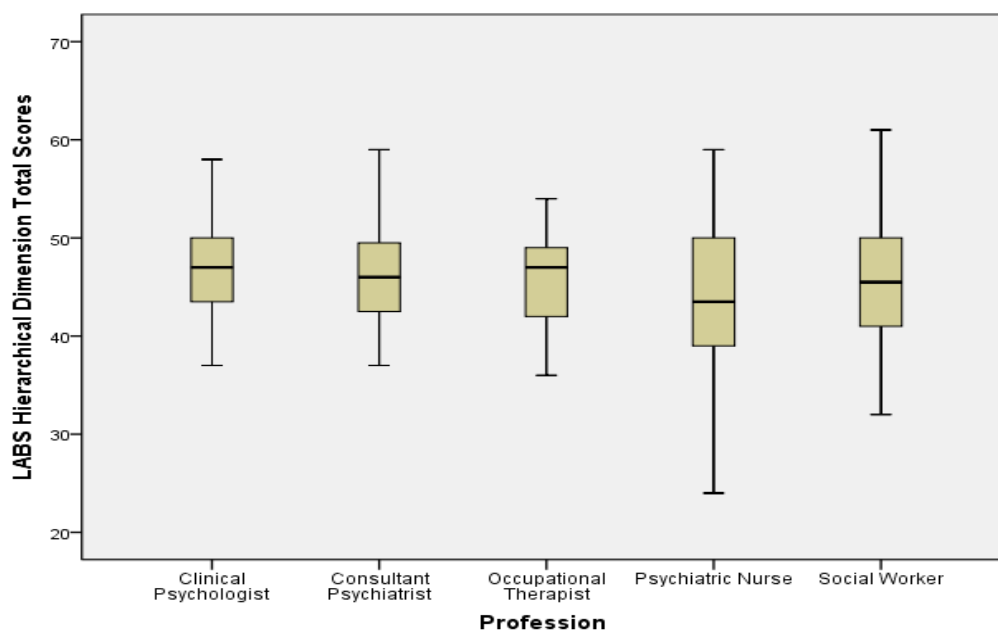


Figure 9. A box plot indicating the variance of participants' LABS Hierarchical Thinking Dimension scores across the five largest professional groups in the study.

APPENDIX J

Assumption of Normality:

LABS Systemic Thinking Dimension Scores Including Outlier 68

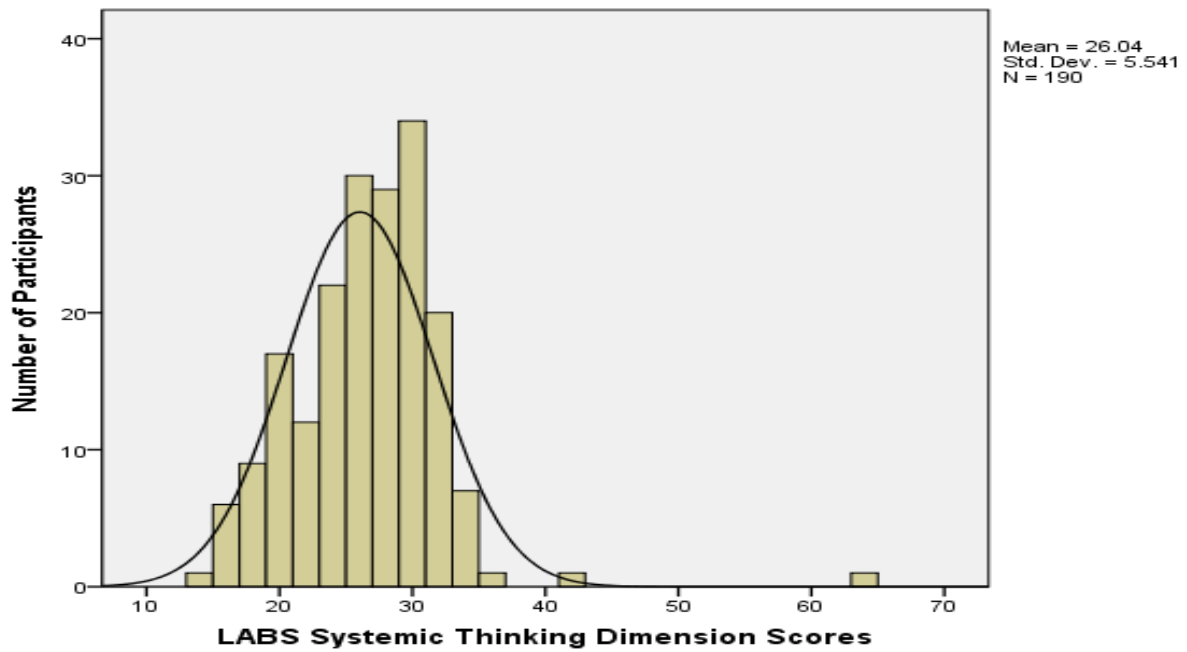


Figure 10. A histogram showing the spread of participants' LABS Systemic Thinking Dimension scores for the five largest professional groups in the study (including outlier).

APPENDIX K

Assumption of Normality and Equal Variances:
LABS Systemic Thinking Dimension Scores Excluding Outlier 68

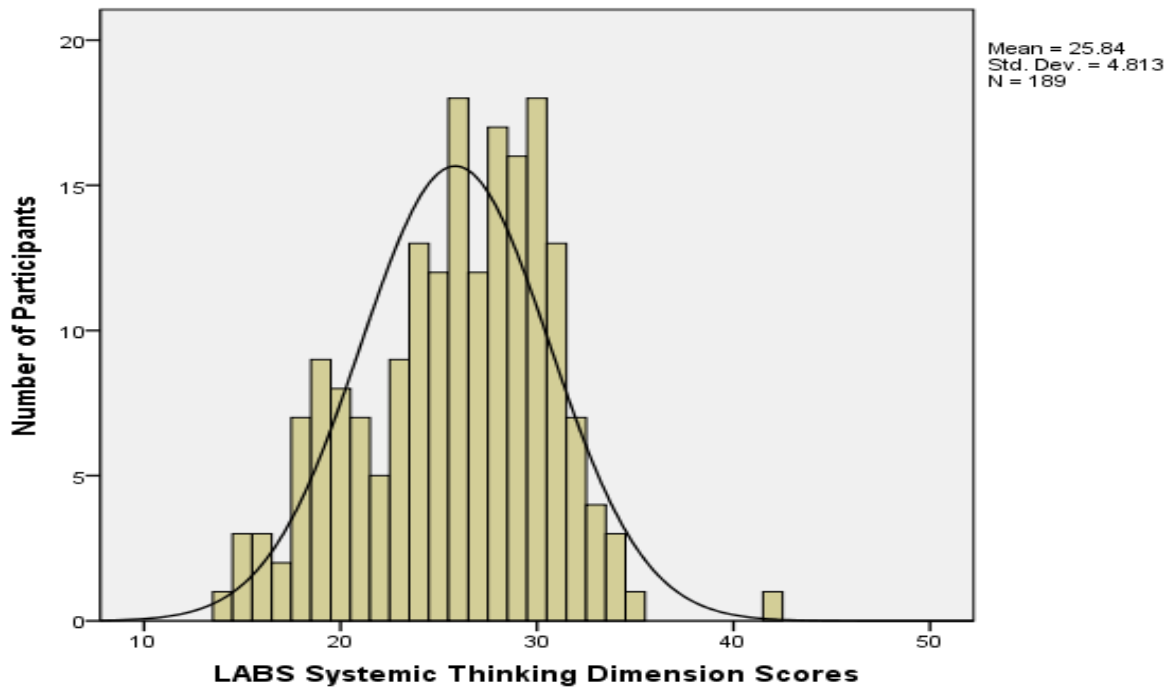


Figure 11. A histogram showing the spread of participants' LABS Systemic Thinking Dimension scores for the five largest professional groups in the study (excluding outlier).

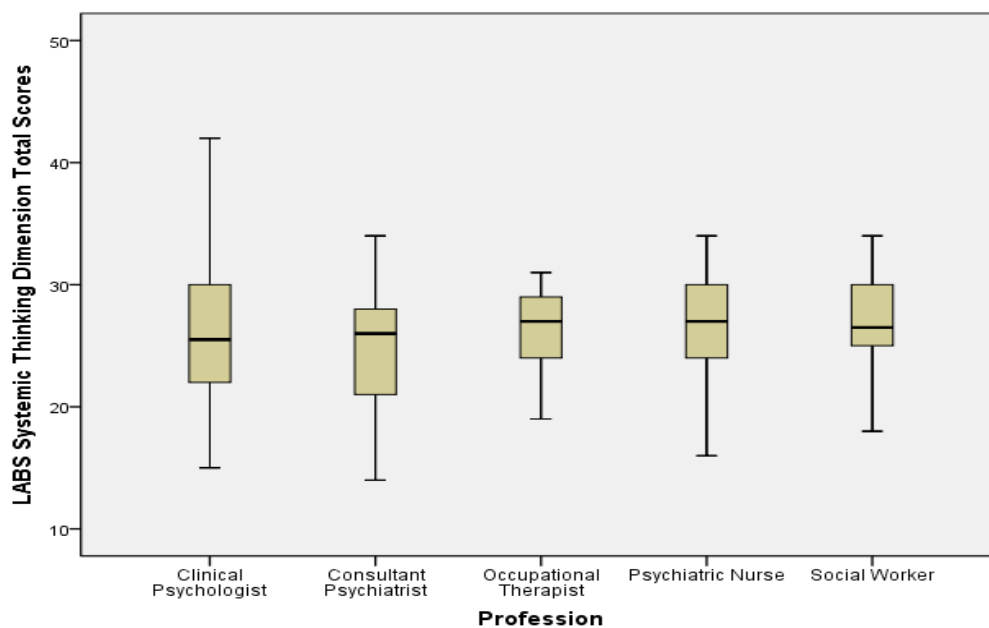


Figure 12. A box plot indicating the variance of participants' LABS Systemic Thinking Dimension scores across the five largest professional groups in the study (excluding outlier).