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School of Psychology

Exploring Clinical Leadership within the Clinical Psychology Career Pathway

Volume 1 of 1

by

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Supervised by Dr Margo Ononaiye and Professor Nick Maguire

Thesis for the degree of Doctorate in Clinical Psychology

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Abstract

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Chapter 1.

The first chapter of this thesis is a systematic literature review to explore the role of personality in the gender differences found in leadership. PRISMA guidelines were adhered to in order to structure the search and selection of papers. A total of 14 papers were included as meeting the criteria for the review. The quality of the papers was assessed using The Standard Quality Assessment Criteria of Evaluating Primary Research from a Variety of Fields (Kmet, Lee, & Cook, 2004). Findings from this review showed a complex and multi-faceted picture and methodological problems within the field of leadership research made drawing any robust conclusions difficult. In general terms, Role Congruity Theory provided a helpful framework to compare results. Many of the included studies supported this theory, indicating that pressures from adhering to social expectations regarding masculine and feminine behaviours impact on gender differences seen within leadership emergence, leadership style, leadership self-efficacy and others' perception of leadership effectiveness. Moderating factors to the general trend of gender differences are discussed.

Chapter 2.

The second chapter of this thesis is an empirical paper exploring clinical leadership within the clinical psychology career pathway. Within the NHS, good quality care for patients and their families, and staff wellbeing, is underpinned by good quality clinical leadership. Clinical psychologists enter into their profession at a fairly senior level once qualified. The British

Psychological Society (BPS) recognised the importance of developing good clinical leadership skills within clinical psychologists during their doctoral training and adapted the competencies required to meet this (BPS, 2014). A study conducted by Channer, Ononaiye, Williams and Mason (2018) explored the clinical leadership experiences of Trainee Clinical Psychologists and Qualified Clinical Psychologists during training and upon qualification. They used the Leadership Framework Self Assessment Tool (LFSAT; NHS Leadership Academy, 2012) to quantitatively measure self-reported leadership skills. Data for Channer and colleagues' paper were collected prior to the BPS changes being rolled out to doctoral training programmes. They found that, whilst Qualified Clinical Psychologists reported clinical leadership as a key element of their role, the doctoral training did not necessarily build and develop Trainee Clinical Psychologists leadership skills. The present study replicated elements of the Channer and colleagues' paper, with the additional inclusion of Assistant Psychologists, in order to explore whether changes in training (following the BPS inclusion of leadership competencies) have impacted on experiences of leadership within their roles. Further, the present study used qualitative questions in order to gain a richer understanding of participants' leadership experiences. A total sample of 202 participants across the clinical psychology career pathway were recruited. Quantitative aspects were explored using group comparison and correlational methods. Qualitative aspects were explored using thematic analysis from a social constructionist perspective. Findings indicated a varied picture in leadership skills development throughout the clinical psychology career pathway since the BPS (2014) changes. Limitations regarding the LFSAT measure were discussed. However, the qualitative results of the present study provided helpful insights into leadership experience and development in the profession. They also highlighted areas that need further improvements. Assistant Psychologists would like earlier opportunities to develop and engage in leadership. Trainee Clinical Psychologists would like teaching on leadership to come earlier in the programme and for this to be supported by opportunities to practice leadership skills during placements. Qualified Clinical Psychologists reported a need for increased funding for training and development once qualified and a need for good quality, psychologically informed, training in leadership in order to support their continued professional development in this area.

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Research Thesis: Declaration of Authorship

Print name:	Ana Ambrose

Title of thesis:	Exploring Clinical Leadership within the Clinical Psychology Career Pathway

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signature:		Date:	

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I have had the privilege to share my training journey with a cohort of some incredible people and made some wonderful new friends in the process. I am excited to see what great things they will all achieve in their future careers.

Chapter 1 A Systematic Review of the Literature

A systematic literature review on gender disparity in leadership in relation to personality and trait explanations

1.1 Introduction

Whilst recent research has shown that the gender gap in leadership positions in Western societies may be decreasing, there still remains disparity in work and leadership related outcomes between men and women (e.g. Cohn, 2000). For example, the UK government website published figures outlined in the Hampton-Alexander Review (2018) which showed that the top 100 FTSE companies were on track to meet the government-backed target that 33% of FTSE 350 board positions should be occupied by women by 2020. However, the same report outlined that almost 1 in 4 companies in the FTSE 350 only have one woman on their board and five companies remain all-male board members (Gov.uk, 2018). The gender differences literature can be confusing, and this may be due to the fact that there are competing and complex explanations for this disparity. Further adding to the complexity, the concept of leadership can be explored from many different angles. For example, peoples' perceptions of leadership in others (Eagly & Karau, 2002), leader emergence (Kent & Moss, 1994; Smith & Foti, 1998), leadership self-efficacy (McCormick, 2001) and leadership behaviour/style (Church & Waclawski, 2011; Larson & Vinberg, 2010).

The next section will introduce some of the key aspects underpinning the concept of leadership with an emphasis on gender and personality.

1.1.1 The concept of leadership

There have been many attempts towards defining leadership and how it differs from management. In general terms, leadership can be considered to mean motivating others in a group, such as fostering group commitment and enthusiasm toward a shared goal (Beech, 2002). In contrast, management can be viewed to be more strategic and organisational, involving thinking about the systems and structures within an organisation (Beech, 2002). Furthermore, management is likely to require leadership skills, but a leader does not necessarily have to also be a manager.

In addition, there are a variety of theories to explain the different styles of leadership. Judge and Piccolo (2004) outlined the multiple dimensions of transformational, transactional and laissez-faire theoretical perspectives. They argued that transformational leadership has four dimensions: charisma, inspirational motivation, intellectual stimulation, and individualised consideration. Transformational leaders are charismatic in taking a stand and appealing to the emotional sides of a follower. They inspire followers to have high standards and understand the purpose/meaning behind a task and they are able to take risk and encourage followers to think of and offer ideas. They also attend to the needs of their followers (Bass & Riggio, 2006; Judge & Piccolo, 2004; Kouzes & Posner, 1988). Judge and Piccolo also described transactional leadership as having three dimensions: contingent reward, management by exception-active, and management by exception-passive. They suggested that a transactional leader sets up expectations and is clear on the rewards for the followers of achieving these expectations, active leaders monitor their follower's behaviour and take corrective action before the behaviour can cause problems whereas passive leaders take action after a follower's behaviour has caused problems. Finally, these authors propose that laissez-faire leaders avoid making decisions and are unavailable. These models of leadership are often discussed as separate entities, however, a leader can foster both transformational and transactional tendencies at different times and within different contexts, but people are likely to have a stronger tendency towards one than the other (Clark & Waldron, 2016).

Research looking at the differences between men and women in their tendencies towards a style of leadership has shown limited differences, although slight tendencies for women to engage with more transformational style and men to engage in more transactional and laissez-faire styles (Martin, 2015). In a study looking at the rates of transformational, transactional, and laissez-faire leadership styles amongst academic library deans, directors, and university librarians, Martin (2015) found that there was no significant difference between men and women in their transformational leadership, however, they did find significant differences in women tending to utilise idealised attributes, inspirational motivation and were more likely to report extra effort from their organisation- all of which are various aspects of transformational leadership. Further, Malero (2011) found that organisations with more women in leadership positions tended to focus more on employee feedback and development. They also tended to promote interpersonal communication and involved employees in decision making more often, all these factors are in line with a transformational style of leadership.

1.1.2 Theoretical perspectives considering the interplay between gender and leadership

Initially, Eagly (1987) put forward Social Role Theory, which looks at descriptive and injunctive expectations. The former concept refers to what people expect a group member to *actually* do and the latter term refers to what they consider the group member *ought* to do (Eagly, 1987). With reference to the sexes, most of these expectations fit into communal (e.g. helpful, nurturing, interpersonally sensitive) or agentic (e.g. assertive, controlling, independent, self-confident) attributes. Eagly argued that communal traits were more in line with expected norms for females and agentic traits with masculine norms.

Eagly and Karau (2002) went on to develop Role Congruity Theory, which directly relates Social Role Theory within a leadership context. Role Congruity Theory suggests that women suffer a prejudice within leadership both in the evaluations of their potential for leadership and the evaluations of their actual leadership behaviour. It argues that this prejudice stems from leadership roles traditionally being seen as requiring agentic traits and thus more congruent with masculine ideals. Furthermore, women who present as effective leaders tend to violate their gender-role expectations and are therefore seen as less favourable. There is support for this theory and it holds strong under a number of conditions. For example, in middle-management leadership roles, where there is a need for good social and interpersonal skills, communal traits are more desirable. Therefore, the incongruity with the female gender role is lessened and the disparity in numbers of women compared with men in these positions is less. The International Labour Organisation (2015) found that the higher the management level, the lower the percentage of women in those positions in a variety of countries. Eagly and Karau argued that this may be because executive level leadership requires more agentic traits to fulfil the role so the incongruity between the female gender role and the leadership role is more pronounced. This theory further argues that in order for women to be successful in gaining leadership positions and being considered an effective leader, they need to be feminine (in order to comply with gender-role expectations) but not too feminine (that they are viewed as not fulfilling the leadership role requirements), *and* they need to be masculine (in order to fulfil the leadership role requirements) but not too masculine (that it violates their gender-role expectations).

Evolutionary psychology provides an alternative perspective to social role theories and would argue that these differences between men and women are evolved psychological dispositions and are driven by adaptations to fit with environmental factors. In its simplest form men have evolved to be larger in size in order to be able to hunt for food and protect their families, whereas women have evolved to be able to care and nurture their offspring.

Evolutionary psychologists would argue, therefore, that these seeming preferences for certain types of behaviour in men and women are ultimately driven and caused by these evolutionary adaptations (Buss, 1995). However, social structuralist theories, of which Role Congruity Theory (Eagly and Karau, 2002) would fit under the umbrella of, argues that social and psychological processes are also at play and operate in the boundaries that societal norms allow (Eagly & Wood, 1999). Eagly and Wood (1999) noted that both theoretical perspectives (evolutionary and social structuralist) may be compatible with each other and that neither are well substantiated as causal theories simply by noting the differences between men and women's behaviour. Eagly and Wood (1999) concluded that one way of testing these origin theories is in the future, for example, by examining the emerging post-industrial societies where divisions in men and women's traditional roles (men in the workplace, women in domestic roles) is already breaking down.

1.1.3 Personality factors

Personality refers to the sum total of the behavioural and mental characteristics that are distinctive of an individual (Coleman, 2006). Early work by Cattell, Eber and Tatsuoka (1971) offered a framework to explain the multi-faceted nature of personality comprising 16 'bipolar' factors (e.g. outgoing-reserved and stable-emotional). They also attempted to describe individual differences by later developing a 16 Personality Factor Questionnaire (16PF: Cattell, Eber & Tatsuoka, 1970). Subsequent replication and novel studies (Fiske, 1949; Tupes & Christal, 1961), however, challenged Cattell's early findings and reduced Cattell and colleague's numerous factors down to five key concepts (Maltby, Day & Macaskill, 2010). Eysenck and Eysenck (1975) went on to identify three main dimensions of personality, namely, Extraversion, Neuroticism and Psychoticism. They developed the Eysenck Personality Questionnaire (EPQ: Eysenck & Eysenck, 1975) to measure these concepts. Whilst Extraversion and Neuroticism are still well supported by empirical research, Psychoticism has received the least amount of support (Maltby, Day & Macaskill, 2010).

More recent research shows strong support for a model containing five main factors of personality. Whilst the Five Factor Model has been contested over the years, it is now widely accepted that personality can be defined within five superordinate constructs (Digman, 1990; Maltby et al., 2010). There is still debate as to the language used to define and label these five dimensions (Allport & Odbert, 1936; Goldberg, 1981; John, Naumann & Soto, 2008). Arguably the most widely used labels for the 'Big Five' are those described by Costa and McCrae (1992a): Openness; Conscientiousness; Extraversion; Agreeableness; Neuroticism. Research has consistently been able to measure the 'Big Five' with strong reliability and validity, across various

cultures, showing stability over time and agreement across observers/raters (e.g. Costa & McCrae, 1992b; Digman, 1990; Goldberg, 1981; John et al., 2008).

1.1.3.1 Measures of personality

There have been various attempts to develop reliable and valid measures of personality traits including the aforementioned 16PF (Cattell et al., 1970) and EPQ (Eysenck & Eysenck, 1975), as well as the Myer-Briggs Personality Inventory (MBTI: Myers & McCaulley, 1985) and The NEO Personality Inventory Revised (NEO-PI-R: Costa & McCrae, 1992b).

Arguably the most popular and widely used personality measure is Costa and McCrae's (1992b) NEO Personality Inventory Revised (NEO-PI-R). Costa and McCrae (1985) developed and revised (Costa & McCrae, 1992b) this tool as a robust measure of 30 personality traits that map on to the five domains: Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. The NEO-PI-R has been used within studies in a range of fields, cultures, genders and has been shown consistently to have excellent reliability and validity (Furnham, 1996).

The MBTI (Myers & McCaulley, 1985) is based on Jung's (1971) theory of psychological types. He described Extraverted types and Introverted types: both included sensing, thinking, feeling and intuitive types within them. His theory showed human behaviour as predictable and measurable, and therefore, he argued, it could be classified into types (Jung, 1971). This theory, however, has been difficult to test, as the personality types Jung described were not clearly defined and could change over time (Maltby et al., 2010). The MBTI is based around four bipolar dimensions: Extraversion-Introversion; Sensing-Intuition; Thinking-Feeling; Judging-Perceiving. It remains in use today, particularly in relation to those wishing to assess 'normal' personality as opposed to disordered personality (Furnham, 1996). However, the MBTI comes under criticism for a number of reasons including the notion that it focuses on types rather than trait measurements (Furnham, 1996). Furthermore, there is criticism that it is based on Jung's theory of personality types and also fails to include Neuroticism, which is a widely recognised dimension of personality (Costa & McCrae, 1989). However, the MBTI has been used extensively within the workplace and executive industries and could be considered to have satisfactory internal and test-retest reliability and satisfactory validity (Furnham, 1996). Although Furnham (1996) also argued that the MBTI has not been as extensively and thoroughly tested as the NEO-PI, and the construct and predictive validity of the NEO-PI is far superior.

1.1.3.2 Gender differences in personality

Social Role Theory suggests that there is a form of social pressure to conform to traditional gender specific societal roles (Eagly, 1987). For example, women will be more likely to be perceived more favourably if displaying behaviours consistent with feminine traits such as nurturing behaviours, whereas men will be seen more favourably when displaying masculine traits such as assertiveness and confidence. In support, Costa and McCrae (2001) found that women tended to score higher in negative affect, submissiveness and nurturance and men tended to be higher in assertiveness scores. However, they also found that surprisingly, and in contrast to what might be expected considering Social Role Theory, western cultures appeared to have more pronounced gender differences. According to Social Role Theory, one would expect that in Western societies, where there is more emphasis on gender equality, this difference would be smaller rather than larger (Costa & McCrae, 2001). In order to explore this surprising finding, Giolla and Kajonius (2018) conducted a vast study across 22 countries and found that the differences between gender and personality traits were significantly larger in more gender-equal countries (as measured by the Gender Equality Index). They suggested that as gender equality increases, men and women tend to gravitate towards their traditional gender roles. They further argued that a combination of Social Role Theory and evolutionary explanations should be explored to account for these findings.

1.1.3.3 Narcissism

Narcissism is a personality construct which is characterised by excessive love or admiration for oneself (Maltby et al., 2010). People high in narcissistic tendencies expect to be prioritised and privileged and, if and when this does not happen, they can easily become offended and attack, and seek to blame others (Maltby et al., 2010). Narcissism and leadership have received a lot of attention in the popular press and within empirical research. It is maybe a popular and rather sensationalist view that Chief Executive Officer's (CEO) in top companies will be ruthless, egotistical and exude unwavering confidence. However, Collins (2001) suggests that companies succeed in the long-term when they have leaders who show both humility and will. Whether narcissism is a useful trait for leadership or not is debatable, the focus here is to consider this alongside gender. Men have tended to be portrayed as more narcissistic than women in general. A recent meta-analysis by Grijalva et al. (2015) found that overall men were more likely to show increased levels of narcissistic tendencies than women. These authors also noted that when using the various facets of the Narcissistic Personality Inventory (NPI), this difference was seen to be driven by men scoring higher in the Exploitative/Entitlement facet and the Leadership/Authority facet. This, along with findings that show people with narcissistic traits tend to emerge as leaders

(Grijalva, Harms, Newman, Gaddis & Fraley, 2015), means that it is crucial to consider not only gender but also narcissism in leadership. Thus, this will be explored further in this in this systematic literature review.

1.1.4 Rationale

The theory that women may have a leadership disadvantage because they possess characteristics that are perceived to be less consistent with leadership role is popular yet more complex than first considered (Badura el al 2018; Eagly and Karau, 2002). The literature appears fragmented and diverse, with new models, theories and constructs being continually developed in relation to leadership behaviours and traits. Derue et al. (2011) appealed to future researchers to compare and contrast the existing literature in order to develop a more integrative understanding. Previous meta-analyses have begun this process of integration, however, they have tended to focus on one aspect of leadership such as leadership emergence (Badura, Grijalva, Newman, Yan & Jeon, 2018) and leadership effectiveness (Paustian-Underdahl, Walker and Woehr, 2014).

The present review aims to add to this integrative understanding by drawing together and evaluating the literature on gender disparity in leadership in relation to personality and trait explanations focusing on the literature published in the last 10 years to ensure that any conclusions drawn reflect the current picture.

1.1.5 Research question

What role does personality play in gender differences in leadership, specifically leader emergence, leadership perceptions, leadership self-efficacy and leadership behaviour?

1.2 Method

1.2.1 Search strategy

Initial scoping searches were performed using Google Scholar and Delphis (the University of Southampton's online search platform giving access to a vast number of databases hosted by EBSCO). A systematic search of the literature was then performed via Delphis to identify relevant papers to be included in the review.

Three key terms in the research question directed the keywords used to focus the literature search: *Personality*; *Gender*; *Leadership*. The initial scoping searches informed alternative words which may be used to describe these terms. Table 1. Outlines the terms used. Using the Boolean operator NOT a further set of keywords was used in order to eliminate studies not relevant to the research question as they frequently appeared during scoping searches. Further limiters were put in place during the search to focus the search to relevant papers to address the research question, these included: papers published in English; papers dated between 2008 and present (this was to focus the search to papers within the last 10 years to reflect the most recent and up-to-date findings in a fast changing area of study); peer-reviewed journal articles and books; and subjects being humans and adults.

Table 1 Search terms and search strategy

Operator	Area of search	Search terms	Number of papers identified
#1 Keyword (Personality)	In Title OR Abstract	Personalit* OR character* N2 trait* OR disposition* OR individual* OR temperament	9,269,132
#2 Keyword (Gender)	In Title OR Abstract	Gender* OR feminine OR masculine OR male OR female OR "sex role*" OR "sex difference" OR "gender gap" OR "gender equality" OR equality	8,183,367
#3 Keyword (Leadership)	In Title OR Abstract	Leader* OR "leader behavi*r*" OR "leader traits" OR "leader N2 effective*"	2,465,264
#4 Keywords	In any field	Education* OR sport* OR religion* OR "software development" OR animal* OR politic*	
#1 AND #2 AND #3 NOT #4			4,910
Limiters	English Language		4,483
	Date	2008-present	2,763
	Peer reviewed		1,692
	Source Type	Journal articles AND books	1,605
	Subject	Human AND adulthood (18 years and older)	214
Imported to Endnote and duplicates removed			203

1.2.2 Eligibility criteria

The papers were screened according to a set of inclusion and exclusion criteria outlined in Table 2. Eligibility was met if papers were quantitative and included some measure of personality (at least one personality trait), some measure of leadership and able to be compared on gender. Samples were required to be human and adult. Studies were included if they were primary research, peer-reviewed and published in the English language. Every effort was made to obtain translated versions of relevant papers in another language, only one paper was excluded due to no English translation being available.

Table 2 Inclusion and exclusion criteria

Inclusion	**Exclusion**
Published in English	No-English translation available
Peer-reviewed	Non-human subjects
Published and primary research	Subjects under age 18
Human sample	No measurement of leadership
Adult sample	No measurement of personality
Measurement of leadership	Gender not reported
Measurement of personality or particular personality trait	Published prior to 2008
Able to make gender comparisons	
Published between 2008-present	

1.2.3 Study selection

Using PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines a systematic approach was taken to screen, exclude and select papers to be included in the review (Moher, Liberati, Tetzlaff & Altman, 2009). Figure 1 demonstrates the process taken. A total of 214 papers were identified, following removal of duplicates 203 remained. A further 7 papers were added following a citation search via Web of Science. A total of 210 papers were screened using the titles and abstracts; this process excluded 146 deemed not eligible for the review. The remaining 65 papers were read in full and assessed for eligibility of which 14 papers met full inclusion criteria.

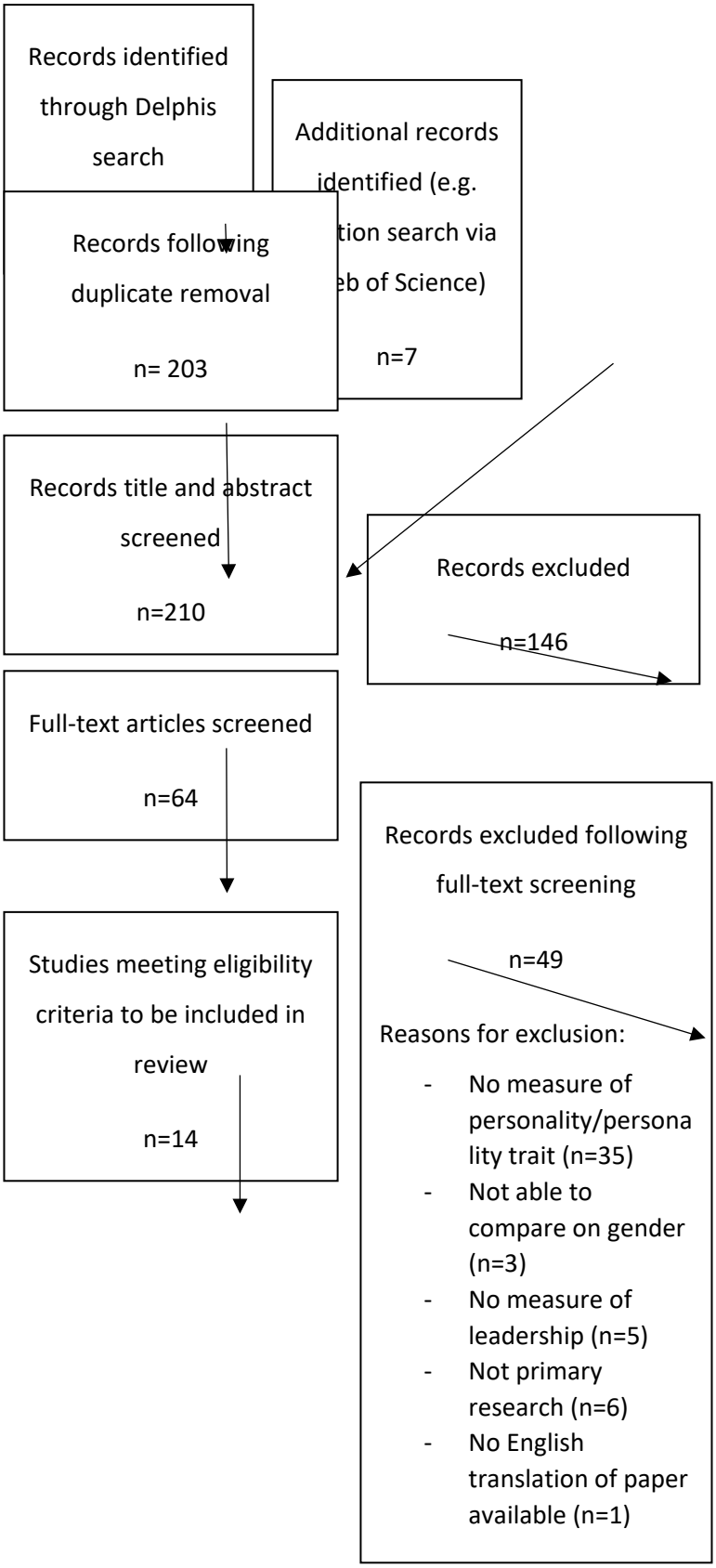

Figure 1 Study selection process

1.2.4 Quality assessment

The methodological quality of the included papers was assessed using The Standard Quality Assessment Criteria of Evaluating Primary Research from a Variety of Fields (Kmet, Lee, & Cook, 2004). This quality assessment tool was selected for use due to the range of different study designs and analytic approaches reported in the included studies. The tool uses 14 questions to assess the quality of a paper on various areas including the design, the form of analysis, and the conclusions drawn. An overall score is given to each paper (a maximum score of 28 is available, this number reduced when certain questions may not have been relevant/appropriate of the paper in question). Although this process is subjective (the assessor makes choices when answering each question) attempts were made to reduce this potential bias by a second assessor rating two of the papers independently and comparing the scores, there was good agreement between raters. Table 3. outlines the aspects of each paper that are relevant to the present study and their score on quality (see Appendix A. for more detailed breakdown of scores across the 14 quality assessment questions for each of the included papers).

Table 3 Included studies: study characteristics, key findings, and quality assessment score

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
Brandt & Edinger	2015	Design: Cross-sectional Quant: survey Country: Finland Setting/sample: Finnish University (data collected from courses ('Management and Organizations' courses and Business Students) between 1998-2012)	To determine whether a team leader's sex has an influence on the relationship between personality and team leadership when team members evaluate the leader's behaviour.	104 team leaders and 672 team members	41% team leader's male	Leadership Practices Inventory (LPI; Kouzes & Posner)	Myers-Briggs Type Indicator (MBTI)	Female leaders received higher ratings than male leaders, especially in Modelling & Rewarding (d= .16), Enabling (d= .23) and Overall Transformational Leadership (d= .24). Female extraverted leaders were regarded as more Modelling & Rewarding than extraverted male leader (d= .24). Introverted females regarded as more Modelling & Rewarding (d= .34), Enabling (d= .40) and Transformational (d= .31) than males. Sensing women regarded as more Modelling & Rewarding (d= .34), Enabling (d= .34), Challenging (d= .21) and Transformational (d= .33) than male sensing leaders. Female thinking types more Modelling & Rewarding (d= .40), Enabling (d= .39), Challenging (d= .24) and	17/28

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
								Transformational (d= .38) than male thinking types. Female team leaders with preference for perceiving (rather than judging) were regarded as more Modelling & Rewarding (d= .46), Enabling (d= .38), Challenging (d= .41) and Transformational (d= .45) than male counterparts. Introverted, sensing, thinking and perceiving female leaders were more transformational than men leaders with similar preferences. Some personality preferences sex-neutral. Both personality and sex have impact on leadership style.	
Brandt & Laiho	2013	Design: Cross-sectional Quant Country: Finland	Discover if similar personality types exhibit the same kind	459 leaders 378 subordinates	Leaders: 283 male, 176 female	Leadership Practice Inventory to measure Transforma	Myers-Briggs Type Indicator	Personality types equally distributed between genders (only thinking-feeling preferences were slightly differently distributed between sexes). Women regard themselves as more enabling and	13/20

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	**Personality**		
		Setting/sample: Data collected at training and development sessions to enhance leadership skills (1996-2010)	of leadership behaviour irrespective of gender.			tional Leadership		rewarding, men saw themselves as more challenging; subordinates appraised the same-supports social role theory. Women with intuitive and feeling preferences were more rewarding than male counterparts. Tendency to overrate true in cases of extraverted and intuitive male leaders.	
De Hoogh, Den Hartog & Nevicka	2015	Design: Cross-sectional Survey Country: the Netherlands Setting/sample: dyads of managers (leaders) and their	Propose that leader's and follower's gender influence the degree to which narcissistic leaders are perceived as effective.	290 (145 employee-leader dyads)	53.8% leaders were male; 47.6% subordinates were male	Leaders perceived effectiveness rated by subordinates (three-item scale- De Hoogh, Den Hartog, and Koopman (2005))	Narcissistic Personality Inventory (NPI-16)	Female narcissistic leaders are seen as less effective than male narcissistic leaders, especially when male subordinates serve as raters. Female subordinates showed no gender bias in their effectiveness evaluations of narcissistic leaders.	21/22

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
		subordinates working in various organisations (e.g. telecommunication, retail, government, insurance).							
Foti, Bray, Thompson & Allgood	2012	Design: Cross-sectional Country: not specified but likely the USA. Setting/sample: college students enrolled in psychology courses.	To investigate how patterns of traits in self and ideal leader profiles were related to one another.	491	75.2% female	Self and ideal leadership. Leadership self-efficacy.	Narcissism (Narcissism Personality Inventory)	Prototypical and Laissez-Faire self leaders tended to prefer an ideal leader who was similar to themselves, whereas Narcissistic and Anti-Prototypical self leaders had more diffuse preferences in ideal leaders. Gender, leadership self efficacy and narcissism only associated with self leader profiles.	18/20

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
Huszczo & Endres	2017	Design: Cross-sectional Survey Country: not specified by likely the USA. Setting/sample: graduate and undergrad' students in Organizational Behavior course in College of Business.	Investigate antecedents to formation of leadership self-efficacy for men versus women.	325	Business students. 182 males, 143 females.	Leadership self-efficacy measure.	Big Five Inventory Core Self-Evaluations	Males and females did not differ in level of extraversion. Women did not perceive extraversion as important to LSE as men. Conscientiousness and openness to experiences are sig more important predictors for females. Level of openness to experience in women proved more predictive of LSE than in men. Women's conscientiousness sig higher than mens. CSE predicted LSE for men but not for women.	17/20
Johnson, Murphy, Zewdie &	2008	Design: Cross-sectional Qual',	In depth test of role congruity theory.	Study 1: 131	Study 1: 48 males	Ps asked to list characterist	Strength and sensitivity – personality	Study 1: agentic leadership prototype dimensions (strength, masculinity, tyranny) more strongly associated with	22/24

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
Reichard		experimental and survey Country: not specified but likely the USA (or Canada). Setting/sample: study 1- undergrad' business students; study 2- community sample recruited from public places e.g. mall food court; study 3- business students from university in rocky mountain				ic of male or female leaders.		male leaders. Communal prototype dimension of sensitivity more strongly associated with female leaders. Non-gendered leadership prototype dimensions (dedication, charisma, attractiveness, intelligence) associated equally with male and female leaders.	

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
		region; study 4-management students from university in rocky mountain region.							
				Study 2: 101	41 men, 70 women. Community sample	Vignette-p's given either male or female leader	Vignette-leader described as strong or sensitive Strength and sensitivity – personality	Ps rated likeability and effectiveness. Strong leaders were liked more than sensitive leaders. Strong male leaders were liked the best and sensitive male leaders liked the least. Strong female leader and sensitive female leaders were liked equally.	
				Study 3: 110	62 men, 48 women. Business students from Rocky Mountain	Rated supervisory on likeability and effectivene	Rated supervisor on strength and sensitivity. Strength and	Also rated BEM sex role inventory. Generalisability of effects of study 2-strength more important to perceptions of effectiveness for male leaders than female, sensitivity more important to effectiveness of female leaders than	

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	**Personality**		
					region.	ss.	sensitivity – personality	male. Leader sex did not interact with strength or sensitivity to impact liking. Findings in contrast to role congruity theory which would suggest that sensitive male leaders and strong female leaders should be judged negatively.	
				Study 4: 62	32 women, 27 men. Management students from large university in Rocky Mountains.	Survey indicate extent to which they found each of 8 prototypical leadership dimensions to be true of leaders.	Strength and sensitivity – personality	Also completed sex role inventory. Ps reported that male leaders more likely to demonstrate agentic leader prototype dimensions, female leaders more likely to demonstrate communal prototype dimension of sensitivity. No differences between male and female of being dedicated, intelligent, or charismatic. Ps rated attractiveness as more characteristic of female leaders. Potential for sex-type to impact prescriptive and descriptive bias in	

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
								evaluation of leaders.	
Lemoine, Aggarwal & Steed	2016	Design: Study 1- experimental; Study 2- experimental Country: USA. Setting/sample: Study 1- first-year MBA students enrolled in medium-sized North-eastern university; Study 2- undergrad' students enrolled in medium-sized South-eastern university.	Explore contextual factors that may influence when women are likely to emerge as leaders.	Study 1: 498 initially	Full-time first year MBA students, USA. 73% men.	Leader emergence	Individual level: extraversion- NEO Five Factor Inventory. Group level: extraversion- mean score of all group members. Big Five: NEO Five Factor Inventory. Honesty-humility: HEXACO-60.	No effects of gender alone on likelihood of leader emergence. Neither gender nor extraversion, at individual or group level, served to significantly predict leadership emergence within groups. Three-way interaction of group-level extraversion, gender, and group-level gender, was significant: groups with more men, men became less likely to emerge as leaders as groups become more extraverted; women in groups with more men, more likely to emerge as leaders when group had high levels of extraversion.	22/24

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	**Personality**		
				Study 2: 484	41% women. Undergrad students USA	Leadership emergence	Extraversion: International Personality Item Pool	Both gender and extraversion significantly correlated with leader emergence: emergent leaders more likely to be extraverted and men. Different from previous study. Significant and positive slope for women in extraverted groups with more men.	
McKee, Lee, Atwater & Antonakis	2018	Design: Cross-sectional Survey Country: 30 different countries Setting/sample: data collected over 6 years from managers participating in company-	Explore the role of leader personality and gender in self-other (dis)agreement in ratings of leadership.	448 managers; 3,315 raters	Managers: 73.44% male.	5 point rating scale-leader behaviours	NEO-PI-R self-personality assessment	Being female was more strongly related to other-ratings than to self-ratings-greater agreement for females as self-ratings were less inflated relative to others.	22/22

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
		sponsored training programmes at seven multinational companies & two groups of managers attending executive education course.							
Miller Burke & Attridge	2011	Design: Cross-sectional Quant and Qual. Country: USA & Canada Setting/sample: convenience sample-	Examine gender differences in personal, personality, work style, and leadership factors among highly successful	101	56 women, 50 men.	Autocratic leadership scale designed by authors.		None of the 7 personality traits, four work style measures, or transformational leadership style measures had a gender difference (core self-evaluation trait approached significance with men being slightly higher).	16/20

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
		individuals in professional and social networks of study authors (only included p's earning min. $100k per annum).	business professionals.						
Ozalp Turetgen, Unsal & Erdem	2008	Design: Experimental Country: Turkey Setting/sample: business management students of large university in Istanbul.	Investigate effects of sex, gender roles, and personality on leader emergence in Turkish university students.	219- 60 selected by personality and sex for group stage. 3 stages to study.	Business students. 30 men, 30 women.	Leader emergence: General Leadership Impression Scale; leader emergence ranking scale.	Dominance sub-scale of California Psychological Inventory. Self-Efficacy Scale (Turkish version). Revised Self-Monitoring Scale (Turkish	Additional measure: Bem Sex Role Inventory (Turkish version) Dominance, self-efficacy, gender roles, and sex did not predict leader emergence. Sex and leader emergence not related- this opposite to results obtained in North American studies.	22/26

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	**Personality**		
							version).		
Sudha & Shahnawaz	2016	Design: Cross-sectional Survey Country: India Setting/sample: public sector organization (power generation sector). Managers from various depts e.g. HR, Research and development, Vigilance, Security, Engineering.	To examine relationship of personality traits and leadership styles among men and women.	293 managers from variety of departments in India (Delhi/NCR regions)	148 male/ 145 female	Assessment of Leadership Style (Sinha, 2008)	Core Self Evaluation Scale (Judge et al, 2003) Narcissism Personality Inventory 16	CSE- females scored higher. Personality trait-narcissism- males scored significantly higher. Dominating leadership styles among male managers are authoritarian, bureaucratic and participative whereas female managers were higher on nurturant, nurturant-task, task-oriented and authentic.	19/22

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
Vecchio & Anderson	2009	Design: Cross-sectional Survey Country: not specified but likely USA. Setting/sample: focal managers who participated in a 360° feedback program to assist in enhancing managerial effectiveness.	Examine personality and demographic attributes as correlates of leadership effectiveness evaluations.	1221	Focal managers. 61.7% male.	The Leadership Circle Profile	Personality sub-scales from Circle Profile: Social Dominance; and Social Sensitivity	Unexpected- males did not rate themselves more highly than females. Females received sig higher evaluations than males from superiors and peers, although not from their subordinates. Male's tendency to overestimate their leader effectiveness relative to their superiors' and peers' assessments. Females described themselves as sig more socially sensitive than males and comparatively less domineering- confirming popular, stereotypically based expectations.	21/22
Vial & Napier	2018	Design: Cross-sectional	To examine whether	Study 1: 281	Study 1: 57.5% female	Study 1: Participants	Study 1: Trait lists include;	Study 1: Leader agency was seen as more of a necessity relative to leader	20/22

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	**Personality**		
		Study 1- Survey; Study 2- Experimental Country: not specified but likely USA. Setting/sample: Study 1 & 2- participants took part via Amazon Mechanical Turk (Mturk; an internet crowdsourcing marketplace)	stereotypically feminine traits are appreciated as nice 'add-ons' for leaders but masculine attributes valued as defining qualities of leader role.			asked to design ideal leader based on 'purchasing' traits from three different lists.	1. Five agentic/competence traits and five communal traits, 2. Five agentic/assertive traits and five communal traits, 3. Five negative masculine stereotypes and five negative feminine stereotypes.	communality, which was viewed as more of a luxury; when p's 'budgets' were constrained men and women both more likely to give up communality in favour of competence and assertiveness. P's also spent more budget reducing negative masculine traits over negative feminine traits. Women compared to men prefer leaders who show more balance between competence and communality, whereas men strongly favour competence.	
				Study 2: 252	Study 2: 42.6% female	Study 2: P's randomly	Study 2: P's asked to rate	Study 2: P's rated competence and assertiveness as more necessary for	

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	**Personality**		
						assigned to either leader position or assistant position.	importance of series of attributes to be successful in their assigned role: attributes taken from list of traits from Study 1 included; 8 agentic traits and 8 communal traits.	success as a leader and communality as more necessary for success as an assistant. Although competence more important for leaders than assistants, it emerged as the most important trait to succeed in both types of roles. No p's gender effects found either in leader or assistant role or interaction effect (in contrast to Study 1)-women just as likely as men to see communal traits as relatively unimportant for them personally to be successful in leader roles.	
Wille, Wiernik, Vergauwe, Vrijdags & Trbovic	2018	Design: Cross-sectional Survey Country: Belgium	Examined whether men and women are more similar among	577 European executives ; 52,139 non-	European executives: 434 male; 143 female. Non-executive	Comparing executive to non-executive	Business Attitudes Questionnaire (BAQ)	Male and female leaders are not fundamentally different. Gender differences on personality traits are smaller among executive than among lower-level occupationally-diverse	20/20

Authors	Year	Study Design and characteristics	Aim of research	No. of p's	Participant demographics (Male/Female)	Comparators		Key findings	Quality Assessment Score
						Leadership	Personality		
		and other European countries Setting/sample: a large international consultancy firm specialized in recruitment and assessment provided European assessment data.	executives than non-executives; whether similar traits distinguish executives from lower-level employees across genders.	executive employees	employees: 34,496 male; 17,643 female.			employees. Similar patterns of traits distinguished executive from non-executive.-executives (male and female) characterized by mainly agentic personality features. Men and women executives demonstrate a similar pattern of classically masculine personality traits. The pattern of hierarchical level differences much more strongly pronounced among women than men.	

1.3 Results

1.3.1 Data extraction

Key information from each study was extracted and is outlined in Table 3. The table includes each study's design, the aim of the research, the number of participants and their demographic information, the measures used and the key findings of the research which relate to the present research question.

1.3.2 Study characteristics

Of the 14 quantitative, two studies (Johnson et al, 2008; Miller, Burke & Attridge, 2011) included qualitative elements which were not relevant so not commented on in this review. Ten studies were cross-sectional survey designs and four had an experimental design element (Johnson et al, 2008; Lemoine, Aggarwal & Steed, 2016; Ozalp Turetgen, Unsal & Erdem, 2008; Vial & Napier, 2018). Three papers (Johnson et al, 2008; Lemoine, Aggarwal & Steed, 2016; Vial & Napier, 2018) included several studies within one paper.

The location of the studies varied, most falling within countries of western culture. Five studies did not explicitly specify the location of the study but it is likely they were conducted in the USA (Foti et al, 2012; Huszczo & Endres, 2017; Johnson et al, 2008; Vecchio & Anderson, 2009; Vial & Napier, 2018). Two studies were conducted in Finland (Brandt & Edinger, 2015; Brandt & Laiho, 2013); one in the Netherlands (De Hoogh, Hartog & Nevicha, 2015); one in the USA (Lemoine, Aggarwal & Steed, 2016); one in the USA and Canada (Miller, Burke & Attridge, 2011); one study used a multinational company and included participants from 30 different countries (McKee, Lee, Atwater & Antonakis, 2018); one study was conducted in India (Sudha & Shahnawaz, 2016); one in Turkey (Ozalp Turetgen, Unsal & Erdem, 2008); and one study used mainly participants from Belgium but also some other European countries (Wille et al, 2018).

The number of participants in each study varied greatly from 62 to 52,139 and all studies included numbers on gender distribution.

In total there were 19 research studies reported on, as several of the papers had more than one study included. Six studies did not report on the age of the participants (Huszczo & Endres, 2017; study 1. from Johnson et al, 2008; Studies 1. and 2. from Lemoine, Aggarwal & Steed, 2016; Sudha & Shahnawaz, 2016; Wille et al, 2018). The mean age of the remaining studies ranged from 19.1 years to 53 years. Of the 19 studies, 11 did not report on ethnicity. Of the remaining, four

studies (Foti et al, 2012; study 2. from Johnson et al, 2008; studies 1. and 2. from Lemoine, Aggarwal & Steed, 2016) gave a breakdown of ethnicity between Caucasian, Asian, Black, Hispanic and Other, with all having a majority of Caucasian participants. Four studies (Miller Burke & Attridge, 2011; Vecchio & Anderson, 2009; studies 1. and 2. from Vial & Napier, 2018) coded their participants as either White or Non-White, all having a majority of White participants.

The majority of the studies used student samples (n=9). Five studies used managers or leaders within various organisations (McKee et al, 2018; Miller Burke & Attridge, 2011; Sudha & Shahnawaz, 2016; Vecchio & Anderson, 2009; Wille et al, 2018). Three studies used an opportunity community sample either sourced through various public locations or through online sources (study 2. from Johnson et al, 2008; studies 1. and 2. from Vial & Napier, 2018). Two studies used participants within leader-subordinate dyads (Brandt & Laiho, 2013; De Hoogh, Den Hartog & Nevicka, 2015).

A large majority of the studies looked at leadership practices, behaviours and/or style (n=10); Four studies measured leadership effectiveness (De Hoogh, Den Hartog & Nevicka, 2015; Johnson et al, 2008; Vecchio & Anderson, 2009) three focused on leader emergence (Lemoine, Aggarwal & Steed, 2016; Ozalp Turetgen, Unsal & Erdem, 2008; Wille et al, 2018). Three studies considered leadership self-efficacy (Huszczo & Endres, 2017; Foti et al, 2012; Vecchio & Anderson, 2009) and one looked at self-other agreement in ratings of leadership (McKee et al, 2018). Most of the papers measured leadership by looking at actual leaders' responses about their own leadership (n=12), some considered leadership from participants' perceptions of leadership in others (n=7); five of which considered both.

In terms of the aspects of personality or personality traits that were measured; eight studies used measures of the 'big five' or other set of personality traits; three considered narcissism (De Hoogh, Den Hartog & Nevicka, 2015; Foti et al, 2012; Sudha & Shahnawaz, 2016); a number of others studies looked at agentic versus communal personality traits (Vial & Napier, 2018) and either dominance, self-efficacy and/or sensitivity (Johnson et al, 2008; Ozalp Turetgen, Unsal & Erdem, 2008; Sudha & Shahnawaz, 2016; Vecchio & Anderson, 2009). Some studies looked at more than one of these aspects of personality.

1.3.3 Measures

1.3.3.1 Personality measures

1.3.3.1.1 Myers-Briggs Type Indicator (MBTI)

The MBTI was used by two of the studies (Brandt & Edinger, 2015; Brandt & Laiho, 2013). Refer to section 1.1.3.1. in the Introduction for more detailed description of the MBTI. Brandt and Edinger (2015) and Brandt and Laiho (2013) used the Finnish version of the MBTI, which they described as showing good construct validity and reliability as tested by Jarlstrom (2000).

1.3.3.1.2 Narcissistic Personality Inventory (NPI)

Three studies (De Hoogh, Hartog & Nevicka, 2015; Foti, Bray, Thompson & Allgood, 2012; Sudha & Shahnawaz, 2016) used the NPI to measure the levels of narcissism. Originally developed by Raskin and Hall (1979) as a measure for narcissistic personality disorder. The studies here used the short version, the NPI-16 (Ames, Rose & Anderson, 2006): a 16-item measure shown to have good face, internal, discriminant and predictive validity (Ames et al., 2006). The 16-item version was developed with the sub-clinical population in mind and as such is popular within non-clinical research such as leadership.

1.3.3.1.3 'Big Five' measures

Huszczo and Endres (2017) used the 44-item Big Five Inventory (John et al., 2008) to measure the five main personality traits and reported good reliability: conscientiousness (α = .78), extraversion (α = .87), openness to experience (α = .81), agreeableness (α = .78) and neuroticism (α = .82).

Lemoine, Aggarwal and Steed (2016) used the NEO Five Factor Inventory (NEO-FFI) and McKee, Lee, Atwater and Antonakis (2018) used the Revised NEO Personality Inventory (NEO-PI-R: Costa & McCrae, 1992). See section 1.1.3.1. in the Introduction for more in-depth discussion of the NEO- Personality measures. Miller Burke and Attridge (2011) referred to a measure used in their companion paper (Miller Burke & Attridge, 2011), in which they selected three items for each personality trait that had high factor loadings from McCrae and Costa's (1987) early work. Fifteen word pairs were used (e.g. for the Neuroticism scale: worrying vs calm) and participants were asked to use a Likert scale from 1-7 (e.g. 1= worrying, 7= calm and 4= neither fits well) to indicate which word best describes them.

1.3.3.1.4 HEXACO-60

In order to measure honesty-humility Lemoine et al. (2016) used the HEXACO-60 (Ashton & Lee, 2009). The HEXACO-60 asked the respondents to use a 5-point Likert scale (1= strongly disagree- 5= strongly agree) to rate 60 statements in relation to themselves (e.g. 'on most days, I feel cheerful and optimistic'). The 60 items are scored into 6 scales: Honesty-humility, Emotionality, Extraversion, Agreeableness (versus Anger), Conscientiousness, and Openness to experience. The HEXACO-60 in self-report form the scales were shown to have internal consistency reliabilities in the .70s (Ashton & Lee, 2009).

1.3.3.1.5 Core Self Evaluation Scale

Three studies (Huszczo & Endres, 2017; Sudha & Shahnawaz, 2016; Miller Burke & Attridge, 2011 part 2 (referring to companion paper which included the comparison measures reported on: Miller Burke & Attridge, 2011 part 1)) used the Core Self Evaluation Scale (CSE) developed by Judge, Erez, Bono and Thoreson (2003). The 12-item measure is used to measure four components: self-esteem, generalised self-efficacy, emotional stability and locus of control. The CSE was shown to have good reliability (α =.84) and test re-test reliability of .81.

1.3.3.1.6 Dominance

Ozalp Turetgen, Unsal and Erdem (2008) utilised the Dominance subscale of a Turkish version of the California Psychological Inventory (Gough, 1948; Demirturk, 1983). The adapted Turkish version consists of 25 items (e.g. 'I'm a better talker than listener') and participants are required to respond 'true' or 'false'. The test-retest reliability coefficient was reported as .83 for the Turkish version (Demirturk, 1983).

1.3.3.1.7 Business Attitudes Questionnaire

To assess personality in Wille, Wiernik, Vergauwe, Vrijdags and Trbovic's (2018) study they used the Business Attitudes Questionnaire (BAQ: Bogaert, Trbovic & Van Keer, 2008). This questionnaire was developed in order to assess personality within the context of the workplace. It has 25 work related personality scales (20 in line with the 'Big Five' traits, and 5 traits relevant to the work place: ambitious, critical, result oriented, strategic, autonomous). The authors report that the BAQ has been reviewed and certified by the Psychological Testing Centre of the British Psychological Society (BPS).

1.3.3.2 Leadership Measures

1.3.3.2.1 Non-standardised measures

Nine of the studies used a non-standardised measure that was developed by the authors to measure leadership outcomes such as leadership effectiveness, leader emergence, leadership style, and likeability of leader (De Hoogh et al., 2015; Johnson, Murphy, Zewdie & Reichard, 2008; McKee, Lee, Atwater & Antonakis, 2018; Miller Burke & Attridge, 2011; Ozalp Turetgen, Unsal & Erdem, 2008; Vecchio & Anderson,2009).

1.3.3.2.2 Leadership Practices Inventory (LPI)

Two of the studies (Brandt & Laiho, 2013; Brandt & Edinger, 2015) used the LPI which was developed by Kouzes and Posner (1988) to appraise leadership behaviours based on leaders and subordinates' responses. Internal reliability of the LPI ranged from .77 to .90. Test re-test reliability (from a convenience student sample) averaged at nearly .94 (Kouzes & Posner, 1988). Brandt and Brandt both reported to using a Finnish version of the LPI in their studies which used slightly different descriptions of the dimensions of the scale to suit the Finnish context: the dimensions measured were Visioning; Challenging; Enabling; Modelling; and Rewarding (Hautala, 2005). Hautala (2005) reported the reliabilities of the Finnish version as adequate as the Cronbach's Alpha ranged from .59 to .87.

1.3.3.2.3 Leader Prototype Scale

In order to measure self and ideal leadership, Foti, Bray, Thompson and Allgood (2012) used a 24-item leader prototype scale based on the 31-item scale developed by Epitropaki and Martin (2004). The 24-items they used measured sensitivity, intelligence, dedication, and tyranny. Participants were asked to rate how descriptive a set of listed traits were of their own leadership style and of their ideal leader. Foti et al. (2012) described reliability scores calculated within a confirmatory factor analysis framework as between .86 and .98 for 'self leader' measures and between .88 and .99 for 'ideal leader' measures.

1.3.3.2.4 Leadership Self-Efficacy

Foti et al. (2012) used an 11-item measure developed by Ng, Ang, and Chan (2008) to measure participants' self-reported confidence in their ability to lead. Reliability for the leadership self-efficacy scale was .93 (Foti et al., 2012).

A Turkish version of The Self-Efficacy Scale (Sherer, 1982; Ozalp Turetgen & Cesur, 2005) was used to measure self-efficacy in Ozalp Turetgen et al.'s (2008) study. The Turkish version

used 19 items which divided into three factors: willingness to struggle with difficulties, willingness to initiate behaviour and to complete, and social efficacy. Ozalp Turetgen et al. (2008) reported high internal consistency reliability for the scale (α = .84).

Huszczo and Endres (2017) used a 12-item scale developed by Paglis and Green (2002) to measure leadership self-efficacy and reported strong reliability (α = .91).

1.3.3.2.5 Global Transformational Leadership Scale

Miller Burke and Attridge (2011) adapted the wording of the 7-item Global Transformational Leadership Scale (Carless, 2000). Participants were asked to rate how much each item (e.g. 'I treat staff as individuals and support and encourage their development') on the scale accurately characterised their personal style of leadership and how they interact with their staff and colleagues. They reported the scale to show good reliability (α = .78)

1.3.3.2.6 Leadership style

Sudha and Shahnawaz (2016) used the Assessment of Leadership Style developed by Sinha (2008) within an Indian context. This assessment outlines six main classifications: Authoritarian, Bureaucratic, Nurturant, Nurturant-task, Task-oriented, and Participative. In a sample of 70 Indian managers reliabilities were reported to be high for each style ranging from α = .84 to α = .94. Further, these authors also used a 16 item self-report Authentic Leadership Style Questionnaire developed by Walumbwa, Avolio, Gardner, Wernsing and Peterson (2008). They reported that the scale was highly reliable among Indian managers (α = .90).

1.3.3.2.7 Self-Monitoring

The Turkish version (Ozalp Turetgen & Cesur, 2004) of the Revised Self-Monitoring Scale (Lennox & Wolfe, 1984) was used in one study (Ozalp Turetgen et al., 2008). This measure has 13-items and two components: ability to modify self-presentation, and sensitivity to expressive behaviour of others. Participants are asked to use a 6-point Likert scale with 0= not at all true of me, to 5 = very true of me to rate each statement (e.g. 'I have trouble changing my behaviour to suit different people and different situations'). Ozalp Turetgen and Cesur (2004) reported the Turkish scale's internal consistency coefficient as .83.

1.3.3.2.8 Leader emergence

Ozalp Turetgen et al., (2008) used a Turkish version (Ozalp Turetgen, 2006) of the General Leadership Impression Scale (Cronshaw & Lord, 1987) to capture leader emergence. Participant

group members rate themselves and other group members on 5-items (e.g. 'how much leadership did the person exhibit?') using a Likert scale with 1 = none and 5 = extreme amount. Ozalp Turetgen (2006) reported the internal consistency reliability as .90 for this measure.

1.3.3.2.9 The Leadership Circle Profile

Vecchio and Anderson (2009) used the Leadership Circle Profile (Anderson, 2006), to measure various aspects of leadership; the subscales used in their study included Social Dominance (α = .82) and Social Sensitivity (α = .80). An example for an item in the Social Dominance subscale is 'I tend to control others' and an example of an item in the Social Sensitivity subscale is 'I form warm and caring relationships'. A Likert scale is used by participants to rate each statement (1=never – 5=always).

1.3.3.3 Sex role measures

1.3.3.3.1 Bem Sex Role Inventory

Three studies (Johnson et al., 2008 (studies 3 & 4); Ozalp Turetgen et al., 2008) used the Bem Sex Role Inventory (Bem, 1974). Participants use a 7-point Likert scale (with 1 indicating 'Never or almost never true' and 7 indicating 'Always or almost always true') to measure the extent that each of 60 words describe them (in relation to their relative masculinity and femininity). Ozalp Turetgen et al. (2008) used a Turkish version of the measure adapted by Kavuncu (1987) and reported that the masculinity and femininity scales' test-retest and Cronbach's alpha reliability coefficients changed from .70 to .77 (Ozalp Turetgen et al., 2008).

1.4 Discussion

The present systematic literature review intended to explore what role personality plays in gender differences in leadership (including leader emergence, leadership perceptions, leadership self-efficacy and leadership behaviour). Whilst there is a wealth of literature within this field, the picture is a complex and confusing one. Discussion points will firstly focus on an evaluation in consideration of Role Congruity Theory (Eagly & Karau, 2002) and will be structured by the themes that emerged from the review. It will then go on to present a methodological critique.

1.4.1 Role Congruity Theory

As outlined in the introduction, Role Congruity Theory (Eagly & Karau, 2002) is used to explain the gender disparity found in leadership with some empirical support (Eagly & Karau, 2002; Paustian-Underdahl et al., 2014; Schein, 2007). Within the context of this present literature

review, the majority of papers broadly supported Role Congruity Theory; the results of one paper partially supported the theory; and three papers findings were interpreted as not supporting Role Congruity Theory.

One explanation for the lack of consistent agreement in findings is the differences in the way in which the results were being interpreted. For example, Lemoine et al. (2016) had unexpected findings that women emerged more often as leaders when the group had more males and had higher group levels of extraversion in a student sample. They proposed that feminine behaviours may be more popular in peoples' perception of good leadership and perhaps the gender disparity in leadership is therefore decreasing over time. They concluded that this supported Role Congruity Theory because typically feminine traits are more desirable now in leadership roles and are also congruent with the traditional feminine social role. In support, Eagly and Karau (2002) suggested that an explanation for leader emergence is that women emerge as leaders more frequently in middle-management positions. In contrast, Wille et al. (2018) took a gender-similarities perspective and concluded that at the executive level of leadership, men and women tended to exhibit broadly similar personality traits, namely those consistent with agentic and traditionally masculine traits. In contrast to Role Congruity Theory, they argued that it was the level of demand in the job role that was important (i.e. executive level vs non-executive level), not gender. Wille and colleagues also found that a hierarchical difference was more pronounced in women, which might be indicative of females facing pressure to prove they are capable of executive level leadership by adopting more masculine interpersonal styles. It is widely acknowledged and supported through empirical research that women emerge as leaders less often than men (Phelan, Moss-Racusin & Rudman, 2008), particularly at the top level of leadership such as executive levels. Therefore, one could argue that Wille et al's (2018) findings support Role Congruity Theory; when women are seen as displaying agentic behaviours driven by personality traits seen more often in men, they are seen less favourably as they are violating the expected feminine social role leading to less women being *selected* for leadership roles at this level.

Depending on how the results from the included studies are interpreted alters whether or not they are considered in support of Role Congruity Theory. Eagly and Wood (1999) point out that simply noting the differences in gender does not necessarily act as support for social structuralist explanations (such as Role Congruity Theory) *or* evolutionary explanations of causality.

1.4.2 Leader emergence

There has been and continues to be clear disparity across gender with men tending to emerge as leaders more frequently than women (Badura, Grijalva, Newman, Yan & Jeon, 2018; Eagly & Karau, 1991). In contrast Lemoine et al (2016) found that women are more likely to emerge as leaders when a group is extraverted and when a group consists of more men. Badura et al's (2018) meta-analysis concluded that although the gender gap appears to be decreasing, the gap that remains appears linked to traits. For example, they found that agentic traits (such as assertiveness and independence) were more beneficial to leader emergence than communal traits (such as interpersonal sensitivity) which appear less conducive to leader emergence. This therefore provides further clarification as to why men may be emerging as leaders more frequently than women, as the desired traits for leadership are more congruent with masculine societal role expectations. In support, Eagly and Karau (1991) found that the type of leadership (task or relational oriented) and the type of task (whether a masculine, feminine or gender-neutral task) act as moderators. The Lemoine et al (2016) study, which scored relatively well in the quality assessment in this review (22/24), therefore further demonstrates the complexity of how and why leaders emerge by highlighting the group characteristics as another important factor.

1.4.3 Leadership behaviour

Many of the studies exploring leadership behaviour or style were rated as fairly poor on methodological grounds using the quality review, however, several provided good quality research and are discussed here. For example, Johnson et al (2008) found support for Role Congruity Theory in that agentic leadership traits were more strongly associated with males and communal leadership traits more strongly associated with females. This finding was similar to that of Sudha & Shahnaw (2016), who found female managers scored higher on more communal styles (nurturant and authentic for example) and male managers were found to be more authoritarian. In contrast, Johnson et al (2008) found that gender did not interact with strength or sensitivity to impact on their likeability (although their findings differed between the different studies they conducted based on contextual factors). Role Congruity Theory would expect strong female leaders and sensitive male leaders to be judged negatively. Johnson et al (2008) explained their findings as consistent with Gender Schema Theory (Bem, 1981) in which sex-typed individuals process information that is in line with their own gender more readily (sex-typing is a social process which may be influenced by numerous factors such as parenting, peer relationships, schooling, and culture). They found that participants who self-rated their sex-type as feminine perceived female leaders to be more effective if they were sensitive, however in

masculine sex-typed participants there was no relationship between sensitivity and effectiveness for male or female leaders.

As discussed, Wille et al (2018) argued that male and female leaders are not fundamentally different, and highlighted the importance of considering context. In support, Paustian-Underdahl et al (2014) conducted a meta-analysis exploring the variety of moderators impacting on the gender gap in leadership and revealed it to be a complex and changing picture. Their findings suggested that the stereotypical masculine leadership type is becoming less favourable in today's society and preference is shifting towards more feminine, transformational leadership style. They also found that the type of organisation impacted on the type of leadership style. For example, gender differences depended on the hierarchical level of leadership, with women seen as more effective than men in middle-management positions. Surprisingly, consistent with Wille and colleagues, no significant gender differences were found at lower- and higher-level management positions. In addition, Paustian-Underdahl and colleagues found that in female dominated groups (i.e., groups that had more women than men) female leaders were favoured and in male dominated groups men were *not* favoured. The authors concluded that women were rated as significantly more effective than men as leaders when rated by others. Paustian-Underdahl and colleagues also noted that when only taking into account self-ratings, men rated themselves as significantly more effective than women. Overall, when taking others-ratings and self-ratings together, there was not a significant gender difference. Further, Williams and Tiedens (2006) found that women who expressed dominance explicitly through behaviour (such as making demands) were seen less favourably than women who expressed dominance implicitly (such as making eye contact). It seems fair to propose that the literature depicts a complex picture with many varying factors and moderators in operation when considering gender and leadership behaviour which may in turn explain the varied and contrasting findings in this literature review.

1.4.4 Leadership self-efficacy

Another emerging theme is leadership self-efficacy, meaning the beliefs one has about themselves and about their ability or competence to bring about intended results (Colman, 2006). The literature suggested that men, when compared with women, tended exaggerate their competence (Paustian-Underdahl et al, 2014; Reuben, Rey-Biel, Sapienza & Zingales 2012). This was partially supported by Vecchio and Anderson (2009), who, found that men tended to overestimate their own leadership effectiveness in comparison to others' ratings of them. Furthermore, McKee el al (2018) found greater agreement between self-ratings and others'-ratings for female leaders indicating women's self-ratings were less inflated relative to others'.

Reuben, Rey-Biel, Sapienza and Zingales (2012) found that overconfidence in past performance and a willingness to exaggerate to the group (both tending to be higher in men) accounted for some of the gender differences. The Huszczo and Endres (2017) paper explored the finer details of the gender differences in leadership self-efficacy and found that even when men and women both perceived themselves as equal in leadership ability, their self-perceived abilities are based on different traits. In that extraversion was a stronger predictor of self-efficacy in men and conscientiousness and openness to experience were more important predictors for women's leadership self-efficacy. Interestingly, as men and women did not differ in their overall levels of extraversion or openness to experience, these factors were more predictive for gendered leadership self-efficacy. Women's conscientiousness was significantly higher in women than men, indicating this as a strength for women as well as a predictor of leadership self-efficacy.

1.4.5 Leadership perception

Role Congruity Theory argues that leaders who display leadership behaviours that fit with the expected gender norms of society will be perceived as more effective and more favourable than those who display behaviours that do not (Eagly & Karau, 2002). There are many factors that impact on how particular leaders are perceived including the context. Organisations have traditionally tended to require masculine traits such as assertiveness, confidence, and willingness to take risks, however, increasingly, organisations are valuing the benefits of more communal feminine traits within leadership such as nurturing, interpersonal sensitivity (Koenig, Eagly, Mitchell & Ristikari, 2011). In contrast, Vial and Napier (2018) found that both genders chose agentic traits as more important to leadership roles than communal traits, and that communal traits were perceived as a luxury whereas agentic traits were seen as more of a necessity. Interestingly, women did show more of a preference for balance between the two than men, who more strongly favoured competence. In consideration of the perception of others, one study found that female leaders generally received significantly higher evaluations than male leaders from their superiors and their peers but not from their subordinates (Vecchio & Anderson, 2009).

It is also important to note that the gender of the raters is an important factor. For example, De Hoogh et al (2015) found that female narcissistic leaders were seen as less effective than male narcissistic leaders and that this difference increased when male subordinates were the raters. In support, Eagly, Karau, and Makhijani (1995) found that when the number of male subordinates increased in a group so did the preference for a male leader. In contrast, however, Paustian-Underdahl et al (2014) found that as the number of male raters increased the perceived gender differences in effectiveness lessened. They also found that, as the percentage of female raters in a group increased, so did the ratings of women's leadership effectiveness. This

difference may indicate a change in perception over time, as the Paustian-Underdahl et al paper was published almost 20 years later than Eagly, Karau, and Makhijani (1995).

1.4.6 Change over time

The argument that there has been a gradual reduction in gender disparity in leadership has some empirical support in the present literature review. In recent times, there has been a movement towards gender equality in general terms but also more specifically within the workplace, and particularly within leadership with legislation to support these changes (The Equal Pay Act, 1970; The Equality Act, 2010). In addition, there has been growing value placed on more typically feminine styles of leadership. For example, communal traits are seen as more desirable within leadership positions, and traditional masculine traits less so over time, leading to more congruity between female gender role expectations and leadership roles (Koenig et al., 2011). The Lemoine et al. (2016) paper also supported this and proposed that this may be due to a shift towards more gender-neutral and communal prototypes of leadership. However, Vial and Napier (2018) argued that it may not be as clear cut as this. They found that, although communal traits were desirable in leaders, they were only desirable once other, more agentic masculine traits required for the leadership role were met first. They concluded that communal traits were seen as a desirable but optional extra.

It has been argued more recently that men may also suffer from prejudice in leadership within certain contexts. In support, Paustian-Underdahl et al. (2014) proposed to extend the Role Congruity Theory to include men. They found that men were seen as less effective leaders within the fields of education and business and argued that this may be due to the leadership roles in these fields being incongruent with the male gender role (this was found when rated by others' but not when measuring self-rated effectiveness).

Huszczo and Endres (2017) discussed this potential change over time from a leadership self-efficacy perspective. They found that men and women did not significantly differ in their overall leadership self-efficacy and argued that this may indicate that men and women's self-perceived leadership abilities and effectiveness might be an indication of a move toward more equality in the field. It is worth noting that their study used business students at the start of their career. It could be possible that generational differences might influence the results and that this indicates an emerging trend in more gender equality in leadership self-efficacy. It would be interesting for future research to compare these results to research with established and more experienced

leaders (where traditional social roles may be more ingrained) to further reflect on whether these results indicate a change over time.

1.4.7 Cultural differences

It is important to consider the findings of each study within its cultural context. The large bulk of empirical research in the field of leadership is conducted from Western society perspective, and particularly the US with the exception of an Indian study (Sudha & Shahnawaz, 2016) and a Turkish study (Ozalp Turetgen et al., 2008). This indicates a gap in the literature with the need to explore gender, personality and leadership from a cross cultural perspective. Ozalp Turetgen et al. (2008) pointed out that Turkey's collectivist and feminine culture may explain why their results differ from the trend of results from Western cultures. Of note, they found that within this cultural context there were no differences found in dominance, self-efficacy, sex, and gender role in leadership emergence and that self-monitoring was the only personality trait that predicted leader emergence. Although on the surface this appears incongruent with Role Congruity Theory, it actually could be argued to offer further support to social structuralist arguments in that in the differences in findings between cultures indicates the strong influence of societal norms over men and women's tendencies to behave in certain ways. In contrast, an evolutionary perspective may predict that there should not be differences in outcomes across cultures. From an Indian cultural perspective, Sudha and Shahnawaz (2016) argued that women within this context are culturally conditioned to household domains and men are seen as the 'bread winners' and therefore results were more in line with Role Congruity Theory. Men scored significantly higher on narcissism and showed more dominating leadership styles, whereas females showed more nurturing leadership styles. Vecchio and Anderson (2009) considered the influence of race and concluded that it had little association with other variables. Interestingly, they found that non-Whites described themselves as significantly more socially sensitive and less domineering than Whites. They viewed this as potentially down to differences in job roles and demands that might be associated with race rather than describing actual racial personality differences. Unfortunately, these differences were not examined across gender and so conclusions are not able to be made regarding the interplay of culture and gender in leadership. Indeed, only eight studies reported on ethnicity within the demographics section and very few commented on ethnicity and culture within the discussion of their results. This indicates a lack of reporting on cultural differences and a lack of empirical research from different cultural perspectives within the leadership literature. It is important that this under-researched area is explored, particularly given that more companies are working multi-nationally (Ozalp Turetgen et al., 2008). Indeed, this could have wide implications for those looking at leadership skills both

within and across gender and personality styles. Further research across cultures would also provide opportunity for more sensible discussions around social structuralist and evolutionary explanations of origin of gender differences found within leadership.

1.4.8 Methodological critique

1.4.8.1 Sample

The fact that a high proportion of studies used student samples (n= 9) has methodological implications. The danger of using student samples is that one would likely miss the complexities and variations at the different levels of leadership, as it is probable that most students would have limited experience of leadership at such an early point in their career. Leadership styles and what one hopes for in a leader may be dynamic and influenced by peoples' experiences as they go through their careers. For example, Dasgupta and Asgari (2004) found that individuals' implicit stereotypic biases reduce over time when they are exposed to other individuals who behave differently to these biased expectations. The use of student samples therefore needs to be recognised and acknowledged as a limitation in the generalisability of findings.

1.4.8.2 Variables

Some of the literature in this review lacks a consideration of the various confounding variables and show a lack of understanding how various factors interact with one another. One area already discussed is the level of leadership (executive vs middle-management leadership) being explored. Many studies overgeneralise their results without acknowledging this limitation or recognising that they are only representing one small section of leadership. There is a call for empirical research within the leadership literature to analyse data at a multi-level, rather than individual levels of analysis, that recognises the complexity of the field being studied and draws on the research of others that has already been empirically tested (Hackman, 2003; Huszczo & Endres, 2017; Lemoine et al., 2016; Zaccaro, 2007). For example, by drawing on group personality literature, and therefore including group level characteristics within their study, Lemoine et al. (2016) were able to highlight more complex interactions between individual and group level extraversion and gender that would have been missed if they had only tested at an individual level. Huszczo and Endres (2017) argued that many studies are too simplistic in their analysis, for example, using simple regression methods that do not allow for controlling of other variables. Huszczo and Endres used the relative importance analysis method in order to highlight traits that could be seen as predictors of leadership self-efficacy when comparing males and females.

1.4.8.3 Measures

Several of the studies included measures that were designed by the authors or other unverified measures (n=9). The use of non-standardised and non-tested measures means that findings from these studies may be called into question. It cannot be assumed that what they are intending to examine is actually what is being examined (Field, 2013). Unfortunately this appears to be a trend within the leadership literature and further impacts on the ability of others to integrate and evaluate the literature to pull together a coherent story.

In contrast, the personality measures appear to have more consistent and rigorous testing. As discussed, particularly the NEO-PI-R has been consistently shown to have good reliability and validity in many contexts and cultures. However, it is still important to consider the differences in standardised measures and what they are actually measuring when integrating results. For example, Costa and McCrae (2001) highlighted that depending on which measure a study uses can impact on the smaller facets within a trait (for example, extraversion includes facets of both nurturance and dominance). Their example, showed the NEO-PI-R Extraversion factor emphasised warmth more than assertiveness, whereas another study using the Eysenck scale the opposite might be found. Therefore, a good understanding of the measure being used and in depth reporting on the measure is key to fully understanding the findings of a study. In the present literature review this was not the case in many of the studies included.

1.4.9 Critique of the lack of integration within the literature

As previously discussed in the introduction, there is a call for more integration in the literature (Derue et al., 2011). It is hoped that the present literature review goes some way in drawing together some of the ideas and findings from this wide and diverse pool of literature. Currently, the literature is littered with so much variety in terms of the measures used, and the quality of the measures are vastly disparate. Further work needs to be done in strengthening the methodologies in leadership research to enable more robust, reliable and valid findings.

Additionally, it would be a valuable process to attempt to bring together the various pockets of research in order to gain a more integrated picture of gender, personality and leadership, rather than continuing to produce more models of leadership, more measures of various facets of leadership and so on. Role Congruity Theory appears to be a good place to start, as has been attempted here. It accounts for and makes sense of the many facets explored within the leadership literature in relation to gender and personality traits. It could be argued that it is compatible alongside evolutionary perspectives to begin to account for, and provide some explanation as to, the differences between genders in leadership. Further, to use these possible

explanations to continue to monitor how these differences may change over time as societal norms change also.

1.4.10 Synthesis of methodological problems

The following section will briefly summarise and synthesise some of the methodological concerns from the present review. With a large number of the studies utilising student populations, the conclusions that can be drawn are limited and not particularly generalisable to real life leadership situations within the context of a working environment. For example, Lemoine et al (2016) reflected that they were attempting to measure leadership within a student sample after only a few weeks together as a group and, therefore, their findings cannot answer questions relating to leadership in more established, stable work groups. Brandt and Edinger (2014) reflected that their use of a student sample might have an impact on the results because their participants may have been timid due to their age or may not have been perceived as a serious leader by others in the group. Similarly, all of the studies included in this review were cross-sectional in design and therefore again are only measuring a 'snapshot' of the picture (Field, 2013). Several studies highlighted this as a limitation, in that they are not able to understand the progress and development of the leadership relationships and behaviours. For example, Wille et al (2018) questioned whether a longitudinal version of their study might find that individuals become more agentic in their style as they climb the career/leadership ladder, and that might explain why they found executives to be more homogeneous, regardless of gender, in their study. And, Foti et al (2013) argued that a longitudinal design would allow for examination of how self- and ideal-leader profiles influence on another and develop over time. Therefore, the large number of student samples in this review and the limited design methodologies available to review (i.e. no longitudinal data) lead to limited conclusions being able to be drawn and offer only a small part of the picture.

Further, a large number of the studies in this review were able to identify potential confounding variables that could have been either controlled for or, included as an additional variable in their study. For example, McKee et al (2018) acknowledged that by only focusing on the leaders' personality and gender they were missing important information relating to the interaction with subordinates' personality and gender, which is highly researched and known to have an influence and impact. Vecchio and Anderson (2009) considered their results limited to a developmental context and further consideration might be to control for or compare contexts, in that whether the setting was an evaluative process (which could be linked to pay outcomes or other rewards) or developmental which would likely have an impact on participants responses.

Vial and Napier (2018) also considered confounding variables linked to context. In their study, they reflected that whether a group were male- or female-dominated would likely impact results and gave the example of male followers reacting more negatively to transformational leadership styles compared to female followers . Johnson et al (2008) listed numerous factors, such as, self-schemas and leaders' sex, that might interact with group norms to impact the extent to which male or female leaders are seen as effective and suggested that future research should focus on these multifactors. These examples further highlight the need for more integration within the literature, bringing together some of these findings and providing more robust studies that account for the confounding variables that have already been widely researched.

1.4.11 Recommendations from the included studies

The studies included in this review were able to make a number of recommendations for the directions of future research, the following section will summarise the main themes of these recommendations. Many of the studies suggested future research should include longitudinal designs as discussed above (Foti et al, 2012; Miller Burke and Attridge, 2011; Wille et al, 2018). Further, a number of the studies recognised their research was too simplistic and recommended future research to consider and include additional variables in order to understand additional factors which are likely to be interacting and impacting on results as discussed above (De Hoogh et al, 2015; Johnson et al, 2008; Lemoine et al, 2016; McKee et al, 2018; Vecchio & Anderson, 2009; Vial & Napier, 2018). This reflected the complex nature of the field and the need for further research to explore the more nuanced variables that were likely having an impact. For example, De Hoogh et al (2015), in their study exploring narcissism in leadership, suggested that future research might consider identifying the gender differences in the *expression* of narcissism by male and female leaders (e.g. do female leaders assert their felt sense of superiority through subtler forms than male leaders in order to conform to the expected sex roles?). In addition, Huszczo and Endres (2017) recommended, for example, that when considering the Big Five, future researchers should look at the various facets in each domain as it has been shown that, particularly extraversion and openness to experience, have facets within them that vary across genders.

An additional recommendation that appeared to be a theme in the included studies was for future research to use designs that would enable exploration of causality (Foti et al, 2012; Huszczo & Endres, 2017; McKee et al, 2018; Miller Burke & Attridge, 2011), this was not achieved within any of the included studies. For example, Foti et al (2012) suggested consideration of, not just differences between genders, but the direction of causality when looking at self-leader perceptions, ideal leader prototypes and evaluation of observed leaders. And McKee et al (2018)

called for future designs that allow for stronger causal claims to be made, and ways to incorporate followers' individual differences in predictive models.

1.4.12 Recommendations for future directions

As discussed previously, there is a need for further reviews and meta-analyses to bring together some of the literature in the field of leadership. It also seems fair to suggest that it is important to explore leadership across different cultural contexts which, as previously discussed, could add to discussions around social structuralist and evolutionary explanations of origin of gender differences in leadership.

The literature suggested that when women do reach top leadership positions, they are often perceived as being highly competent and receive higher evaluations than their male equivalents. It is argued that this is due to people perceiving that women have to face a higher set of standards than men to reach the top leadership positions, therefore, those women that do make it, are seen as particularly skilled and competent (Paustian-Underdahl, Walker & Woehr, 2014). For that reason, it would be interesting to explore the selection process, and how, why, and under what conditions, do men and women emerge as leaders. Several of the studies included in this review started to explore leader emergence, however, this was within a 'leaderless group' context (where somebody begins to take the lead and the rest of the group either accept their leadership or don't (and rate or rank each member on leadership)) and used student samples (Lemoine, Aggarwal & Steed, 2016; Ozalp Turetgen, Unsal & Erdem, 2008). In real-life work situations it is not usually the case that leaders are selected in such a manner; 'followers' are rarely the people selecting who will lead them, rather, those already in leadership positions might short-list and select candidates for the leadership positions. Therefore, it will be interesting for future research to explore the selection process within real-life work environments and consider how gender and personality types might be influencing the selection process.

1.4.13 Conclusion

This systematic literature review aimed to explore the role of personality in the gender differences seen within the area of leadership. Although Role Congruity Theory appeared to be a useful framework with which to explore these differences, it did not account for all the differences found. It was found that the gender disparity within emerging leaders could be partially moderated by group characteristics (e.g. whether or not the group is more extraverted) and the type of group task (e.g. more masculine or feminine tasks). The literature review

indicated that men tended to display leadership behaviours which were more agentic (in line with masculine norms) and women tended to display more communal traits (congruent with more feminine norms). This finding, however, was moderated by several factors including participants' self-rated sex-type influencing how they perceived male and female leaders. Further, the hierarchical level of the leadership position impacted on whether these traits were seen. Men and women at the executive level of leadership tended to display similar agentic traits. Leadership self-efficacy differed in men and women, with men overestimating their leadership effectiveness in comparison to others' ratings of them, compared with women who did not. There were differences in how raters perceived the effectiveness of their leaders based on whether the raters' were subordinates, peers or superiors. The gender of the rater was also important. The picture has changed over time, with feminine traits increasingly being seen as beneficial in leadership roles. There are also important factors to consider regarding cultural differences which is a relatively under researched area. In summary, this literature review has highlighted the distinct lack of integration within this field of research and a need for further reviews and meta-analyses to bring together the existing literature. Further work needs to be undertaken to improve the quality of methodologies within leadership research.

Chapter 2 Exploring Clinical Leadership within the Clinical Psychology Career Pathway

2.1 Introduction

2.1.1 Clinical leadership

Clinical leadership can be defined in many different ways. It is important when discussing leadership to distinguish leadership roles from those of management. This is particularly key in clinical settings such as the National Health Service (NHS) where experienced clinicians, who may not be managers, can take on leadership positions or work using their leadership skills within their everyday clinical work. They do this by utilising their wealth of professional knowledge including the development and progression of services to best meet the needs of the patients they are supporting (Long, 2011). Storey and Holti (2013) outlined their understanding of the difference between leadership and management informed by Zalenznik (1992). They referred to leadership as thinking about goals, being active rather than reactive and shaping ideas about ideas rather than responding to them. In contrast, Storey and Holti described the concept of management as shifting the balance of power in order to gain solutions that are acceptable compromises. Indeed, Zalenznik (1992) summarised this difference as managers limiting choices and leaders developing new approaches. It is difficult to offer one distinct definition of clinical leadership as it is often described within the context it is being explored (Swanwick & McKimm, 2011). For the purpose of this study, the concept of leadership as a shared or distributed leadership will be used (as opposed to individual, powerful leaders), which is particularly helpful when considering leadership within a healthcare context where leadership tasks may be complex and require multiple disciplines perspectives (NHS Leadership Academy, 2010). This is supported by Forsyth and Mason (2017) who found that all professions within their study (Psychiatric Nurses; Clinical Psychologists; Consultant Psychiatrists; Occupational Therapists; and Social Workers) reported a high level of agreement with shared leadership.

2.1.2 Clinical leadership within the National Health Service (NHS)

Clinical leadership directly impacts on the quality of care offered by an organisation. Jonas, McCay and Keogh (2011) highlighted the importance of good clinical leadership in

"promoting high-quality clinical care and transforming services to achieve higher levels of excellence" (p.1).

Within the NHS, good quality care for patients and their families, and staff wellbeing, is underpinned by good quality clinical leadership. The NHS Leadership Academy has worked hard to develop a greater understanding of clinical leadership and how it may best be developed within their staff (Storey & Holti, 2013). For example, the development of models of leadership such as the Clinical Leadership Competency Framework (NHS Leadership Academy, 2011); Healthcare Leadership Model: The nine dimensions of leadership behaviour (NHS Leadership Academy, 2013). There are many different models of leadership (see literature review for further discussion on this point) and many researchers have concluded that leadership should be a flexible and developmental process (e.g., Khan, Nawaz & Khan, 2016). This study will focus on the use of the Clinical Leadership Competency Framework (CLCF: NHS Leadership Academy, 2010) and the subsequent Leadership Framework (LF: NHS Leadership Academy, 2011), which both focus on the developmental process of leadership and recognise the shared responsibility of all staff within the NHS to commit to developing leadership skills within the remit of their role. The aim of CLCF model was to optimise leadership potential for all clinicians working in the healthcare system in order to improve patient outcomes and deliver excellent care (NHS Leadership Academy, 2010). The NHS Leadership Academy (2010) further highlighted and recognised that the NHS was going through significant changes and, in order to meet the challenges it faced, it would need a model that supported clinicians in developing their leadership capabilities to bring about successful transformation of services. The CLCF has five domains each with four further elements. The five domains are: Demonstrating Personal Qualities; Working with Others; Managing Services; Improving Services; and Setting Direction. An example of the four elements of a domain is: Demonstrating Personal Qualities- Developing Self-Awareness; Managing Yourself; Continuing Personal Development; and Acting with Integrity. The LF added a further two domains resulting in seven domains. The additional two domains were aimed at individual leaders and people within senior roles, these domains are: Creating the Vision; and Delivering the Strategy.

Developed alongside the LF was a self-assessment tool, the Leadership Framework Self Assessment Tool (LFSAT: NHS Leadership Academy, 2012), which enables staff members to assess their own leadership skills in each of the domains and subsequently plan their continued leadership skills development based on the assessment outcomes.

2.1.3 Clinical leadership within clinical psychology

Within the NHS, Clinical Psychologists enter into newly qualified posts at a reasonably high pay banding, band 7 (NHS Agenda for Change, 2017), compared with many other health professionals who upon qualification might start at band 5 or 6. The NHS Agenda for Change system uses a job evaluation scheme to determine the correct pay band for each post within the service, the decision on which banding is appropriate is based on the level of knowledge, responsibility, skill and effort for the role (NHS Agenda for Change, 2017). The higher level of pay scale for Clinical Psychologists recognises the rigorous doctoral training required to become qualified but also comes with expectations that the Clinical Psychologist will take on leadership roles and positions within the organisation. This may be in terms of supervising other members of the team, working with staff teams, assessing the need for and facilitating change within service provision (BPS, 2010).

The Division of Clinical Psychology (DCP), which operates as a sub-division of the British Psychological Society (BPS), recognised the unique set of skills clinical psychologists develop during their doctoral level training. The DCP detailed that these skills serve as valuable tools for effective leadership, including core psychological competencies, expertise in engagement and collaboration and understanding of relationships (BPS, 2010). In order to highlight and improve leadership skills within the profession they developed the Clinical Psychology Leadership Development Framework (CPLDF: BPS, 2010) which outlines at the various stages of the Clinical Psychology career and what is required in terms of clinical leadership skills and development at each level. The CPLDF is set out within a continual professional development framework. Furthermore, the CPLDF was developed in line with the proposed Leadership Competency Framework for Clinical Professionals which was later published as the CLCF (NHS Leadership Academy, 2010). The CPLDF highlighted three sets of drivers for developing good leadership skills: clinical drivers; professional drivers; and strategic drivers. For example, the clinical drivers included effective team working and leading on psychological assessment and formulation in teams. Professional drivers included improving access and availability of psychological therapies and services. Strategic drivers included clinical psychologists playing key roles in reform of health services, service redesign and new ways of working to improve quality and efficiency of health services (BPS, 2010). The CPLDF considers four different levels of the profession (Post-Graduate Doctoral Trainee Clinical Psychologist; Practising Clinical Psychologist; Consultant Clinical Psychologist; and Clinical Director) and at each level it outlines what skills are needed, how to develop these skills, and what to do with these skills.

Of specific interest to this study, Channer, Ononaiye, Williams and Mason (2018) utilised the LFSAT with Trainee Clinical Psychologists and Qualified Clinical Psychologists. They found that whilst Qualified Clinical Psychologists reported clinical leadership as a key feature of their role, Trainee Clinical Psychologist reported that the doctoral training process did not necessarily develop their leadership qualities and skills. In addition, Channer and colleagues found that there were no significant differences between the year of training and each of the seven domains of the LFSAT, indicating a reported lack of development of leadership skills throughout the three years of training. They also found that six of the leadership domains of the LFSAT were not significantly correlated with job banding, with only the domain of 'Delivering the Strategy' showing a positive relationship with an increase in job banding. One possible reason for this is that continued professional development in the realm of leadership skills might not necessarily be occurring. A further explanation could be the clinical psychologist roles have a strong leadership flavour from the onset which is reflected by the entry level of Band 7. This notion is further upheld as Channer, Ononaiye, Williams and Mason's finding that there were significant differences between Trainees and Qualified Clinical Psychologists' LFSAT domain scores on six of the seven domains (no significant differences for the domain of Personal Qualities). It therefore seems fair to argue that once qualified, clinical psychologists are finding leadership a part of the role.

The BPS recently updated and developed the competencies they require Trainee Clinical Psychologists to meet whilst on doctoral training to include leadership skills (BPS, 2014). Of interest, these competencies were incorporated by Clinical Psychology Training Programmes after the data was collected by Channer and colleagues' study. The BPS (2014) leadership competency is termed 'Organisational and Systemic Influence and Leadership' and is now one of the nine competencies that trainees must aim to develop during training. As yet, no studies have explored whether this change in Doctoral Level Clinical Psychology Programme requirements, in particular with the focus of leadership skills being integral and explicit in the training, has impacted upon the development of leadership skills within the profession. The BPS changes are likely to enable the development of a set of leadership skills and competencies in Trainees. It is expected that these changes will mean that Trainee Clinical Psychologists will be better prepared for the leadership aspects of the role, which appear to be integral to a Qualified Clinical Psychologist role (Channer et al, 2018). For example, developing skills in supervision; gaining a good understanding of legislation relating to the field; and understanding leadership theories and models and how to apply them within their job roles, such as within service delivery and development (BPS, 2019). It is important that the profession remains relevant and up-to-date, and this means responding to the call for shared/distributed leadership models to facilitate the ongoing changes within the NHS (Storey & Holti, 2013) in which clinicians take a role in leading change (NHS Leadership Academy,

2010). Clinical psychology training aims to develop a unique set of generalisable and transferable skills and competencies in Trainees across a wide range of settings (BPS, 2019), which lends well to leadership roles, particularly now the training explicitly focuses and is required to meet standards around leadership (BPS, 2014).

2.1.4 Rationale

Following on from the recent update in the training competencies to include leadership (BPS, 2014), it feels pertinent to explore the impact this has had upon leadership in the profession by building upon the work of Channer, Ononaiye, Williams and Mason (2018). These authors utilised the LFSAT as a measure of leadership within their sample. The present study therefore will use the same tool (see Appendix C for LFSAT). With this in mind, this study aims to recruit participants from all levels of the Clinical Psychology career pathway (from Assistant Psychologists to Band 9) in order to give a fuller picture of the experience of clinical leadership throughout the profession. The inclusion of Assistant Psychologists' experience of leadership within their roles is a novel aspect of this study and builds upon the work of Channer and colleagues. The rationale behind this is to investigate whether Assistant Psychologists are utilising and developing leadership skills within their roles prior to starting doctoral training. Furthermore, this is in line with the NHS Leadership Academy (2010) CLCF which highlights the importance of all levels of staff assessing and developing their leadership skills appropriate to their roles. This study will build on this research area further by adding a qualitative component in order to gain a fuller and richer picture of participants' experiences of clinical leadership within their roles (Smith, 2008).

There appears to be little peer-reviewed literature specifically exploring leadership skills within the clinical psychology profession. This is surprising considering the recent BPS competency changes (BPS, 2014). It is hoped that this study will highlight how (and when) leadership skills and competencies are being developed in the profession. Further, it is hoped that this study will bring to attention Assistant Psychologists', Trainee Clinical Psychologists' and Qualified Clinical Psychologists' experience of leadership, and their experience of training on leadership. The aim here is to open the discussion on this important topic, evaluate leadership development within the profession, and give a voice to practitioners regarding potential further improvements to the development of these skills and competencies.

It is important that this study reflects the views throughout the profession rather than simply focusing on Trainee experience of doctoral training to explore leadership skills development. It is recognised that the doctoral training process is just part of the journey of skills

development. The breadth of knowledge and potential avenues for specific clinical psychology roles is vast once qualified, therefore the doctoral training programme should be seen as a foundation training of the skills and knowledge required for the role, and further development is required through continued professional development (BPS, 2012). This study recognises this continued development and therefore includes all levels of the profession.

2.1.5 Research questions and hypotheses

The first three research questions of this study were informed by the Channer, Ononaiye, Williams and Mason (2018) study. The fourth research question aims to gather a deeper understanding of leadership experiences within the field of clinical psychology by adopting a qualitative approach.

1. Are there any significant differences between each of the leadership competencies when comparing Assistant Psychologists, Trainee Clinical Psychologists and Qualified Clinical Psychologists?
    - It is hypothesised that there will be significant differences between job roles and self-reported leadership competencies, with Qualified Clinical Psychologists showing higher levels of leadership competencies.
2. What is the relationship between job banding and the leadership competencies?
    - It is predicted that LFSAT scores will increase as pay banding increases to reflect the development of skills and competencies throughout the career pathway.
3. What is the difference between year of clinical psychology training and each of the leadership competencies as measured by the LFSAT?
    - It is hypothesised that there will be an increase throughout training in Trainee Clinical Psychologists leadership competencies following the inclusion of leadership within the BPS guidelines for the doctoral programmes. It is predicted that these changes will be reflected more notably within third year Trainees, as this is the time in which most programmes emphasise leadership skills development.
4. How do Assistant Psychologists, Trainee Clinical Psychologists and Qualified Clinical Psychologists experience leadership within their roles and, how do they think these skills could be further developed within their training/current roles?

2.2 Method

2.2.1 Ethics

The present study was approved by the University of Southampton's Research Ethics Committee as meeting the required ethical standards (Appendix B).

2.2.2 Design

The present study used a mixed-methods cross-sectional design.

2.2.2.1 Quantitative methods.

To test whether there were any significant differences between the three groups: Assistant Psychologist; Trainee Clinical Psychologists; Qualified Clinical Psychologists across the seven LFSAT domains group comparison design was used. For the second research question, correlational tests were used in order to examine the relationship between job banding (bands 4-9) and the seven domains of leadership. In order to test the third research question, which looked at the relationship between year of training and the seven LFSAT leadership competencies, a group comparison design was used.

2.2.2.2 Qualitative methods.

The fourth research question aimed to gain a richer understanding of participants' experiences of leadership within their current job roles and how they think these skills could be further developed within their current roles and/or training. With this in mind, a qualitative design was appropriate. In order to explore these questions, thematic analysis was used to analyse the data from the free-text questions asked in the study.

2.2.3 Participants

Participants were recruited from not only across the NHS pay bandings but also from across the UK (see procedure for more details on recruitment). The inclusion criteria were those who self-identified as being either an Assistant Psychologist, a Trainee Clinical Psychologist, or a Qualified Clinical Psychologist. Participants were excluded from the study if they were not currently working in the UK. A total of 245 participants took part in the study, however, 43 did not complete the full study or did not select one of the three job role types (Assistant Psychologist, Trainee Clinical Psychologist or Qualified Clinical Psychologist), this data was

removed prior to analysis. This resulted in a total of 202 participants, of which 44 were Assistant Psychologists, 78 were Trainee Clinical Psychologists, 80 were Qualified Clinical Psychologists. There were 174 females, 26 males and 2 participants selected Other for gender. The number of participants (and gender) in each pay banding is outlined in table 4. The table indicates that whilst Clinical Psychology is a female dominated profession, a higher percentage of the male participants were occupying the higher banded positions (e.g. 8a-8c) than the percentage of female participants in these positions.

Table 4 Participant numbers and gender across pay banding

	Job Banding										
	4	5	6	7	8a	8b	8c	8d	9	Did not specify	Total Participants
Male *N*	3	0	10	1	8	0	3	0	0	1	26
Male %	11.5	0	38.5	3.8	30.8	0	11.5	0	0	3.8	
Female *N*	16	21	68	16	29	14	9	0	0	1	174
Female %	9.2	12.1	39.1	9.2	16.65	8.0	5.2	0	0	.55	
Other *N*	2	0	0	0	0	0	0	0	0	0	2
Other %	100	0	0	0	0	0	0	0	0	0	
N	21	21	78	17	37	14	12	0	0	2	202

2.2.4 Measures

2.2.4.1 **Demographics Questions.**

Participants were asked a number of demographic questions (see Appendix D). Information regarding their current job role was also requested in this section. Participants (from all three groups: Assistant Psychologists; Trainee Clinical Psychologists; Qualified Clinical Psychologists) reported working in a wide range of service settings including NHS, private practice, charity sectors and government agencies (e.g. National Probation Service). These settings included working across the lifespan (children, adult and older adult). With a range of specialisms, which included: inpatient, community, neuropsychology, learning disabilities, forensic, adult mental health, children's mental health, education, military, autism, chronic pain, other health settings (e.g. diabetes, oncology, paediatric health) research and development, specialist trauma services, psychiatric hospitals, early intervention psychosis, rehab and recovery, perinatal, eating disorders team, schools, medically unexplained symptoms centre, social care, palliative care, children's palliative care service, ministry of defence, looked-after children's team, student wellbeing. Participants self-reported ethnic origin is shown in Table 5, which shows a large majority of the participants as White British.

Table 5 Ethnic origin of participants

Ethnic origin	*N*
Black or Black British	
Caribbean	0
African	1
Any other Black background	0
White	
British	167
Irish	6
American	0
Any other White background	9
Asian or Asian British	
Indian	7
Pakistani	2
Bangladeshi	1
Any other Asian background	0
Mixed	
White & Black Caribbean	0
White & Black African	0
White & Asian	0
White & Hispanic	0
Any other mixed background	2
Other ethnic groups	
Chinese	2
Japanese	0
Hispanic	1
Any other ethnic group	3
Do not state	1

2.2.4.2 **Leadership Framework Self-Assessment Tool (LFSAT).**

Permission was granted by the NHS Leadership Academy to use the LFSAT (NHS Leadership Academy, 2012). Participants were asked to use the tool to self-assess their leadership competencies. The tool was developed by the NHS Leadership Academy (2012) in order for employees within the NHS at all levels, not just those in leadership positions, to self-assess their leadership behaviours and understand their leadership development. The LFSAT was developed as part of a wider body of research into the development of the Clinical Leadership Competency Framework (NHS Leadership Academy, 2011).

The LFSAT is split into seven domains of assessment:

1. Demonstrating personal qualities
2. Working with others
3. Managing services
4. Improving services
5. Setting direction
6. Creating the vision
7. Delivering the strategy

Each domain contains eight statements and participants are required to rate either '*a lot of the time'*; '*some of the time*'; '*very little/none of the time*' in relation to the frequency in which the statement applies to them. In the present study a score of 1 was given to the rating 'very little/none of the time', a score of 2 was given for 'some of the time' and a score of 3 was given for 'a lot of the time'.

2.2.4.3 Qualitative Questions.

The questions were developed by the main researcher and directly mapped onto the fourth research question. The wording of the questions was revised following consultation and feedback from clinical psychology colleagues (two Trainee Clinical Psychologists and one Qualified Clinical Psychologist). Participants were asked four free-text questions in order to gain a richer understanding of their leadership experiences:

1. Do you feel clinical leadership skills are important within your current role?
    a. If yes, how?
    b. If no, why not?
2. Are there adequate resources and training available to you to develop your clinical leadership skills in your current role/training?
    a. If yes, what are they?
    b. If no, what recommendations would you make in order to improve your leadership skills?
3. Which leadership skills are you more confident in using in your current role and why?
4. In relation to clinical leadership skills, what personal qualities do you already hold?

2.2.5 Procedure

Participants were invited to take part in the present study via an e-mail containing an iSurvey link or via a link in a Facebook or Twitter advert (see Appendix E). In order to increase the number of participants and to ensure a wide representation from across the UK, the researcher utilised a nationwide supervisor database for Clinical Psychology Doctoral Programmes. Supervisors were e-mailed and asked to participate in the study themselves as Qualified Clinical Psychologists and also to forward the e-mail to any Assistant Psychologists and Trainees working within their team. Further, all 30 Clinical Psychology Programme Boards across the UK were contacted via e-mail and asked if they would be willing to e-mail their Trainee Clinical Psychologists and Supervisors to invite participation. It is not possible to provide data on response rates from individual programme boards as participant involvement is confidential as is in line with ethical procedures.

The iSurvey contained a participant information sheet, outlining the purpose of the study and what to expect (attached in Appendix F). Participants were then prompted to tick whether they give their consent to participate. The iSurvey was split into three main sections; participants were asked demographical information and questions relating to their current role; they were then asked to complete the LFSAT and the four qualitative questions. A short debrief statement

(attached in Appendix G) concluded their participation, and participants were given the opportunity to leave their e-mail address (stored separately from their questionnaire responses to maintain anonymity of their responses) in order to be entered into a prize draw for Amazon vouchers (4 X£25) to thank them for their time in completing the study. The study took approximately 30 minutes to complete.

2.3 Results

The results will be discussed in the order of the research questions posed in the following sub-headed sections.

2.3.1 Research question 1.

Are there any significant differences between each of the leadership competencies when comparing Assistant Psychologists, Trainee Clinical Psychologists and Qualified Clinical Psychologists?

Median scores for each of the leadership domains were calculated for each group (Assistant Psychologist; Trainee Clinical Psychologist; Qualified Clinical Psychologist), see Figure 2. Median scores were used to provide a more conservative calculation due to data being significantly skewed, further to ensure that calculations were consistent with the Channer, Ononaiye, Williams and Mason (2018) paper. The Kruskall-Wallis test was selected to analyse the data, as the data violated the assumptions for parametric testing, in that it was not normally distributed.

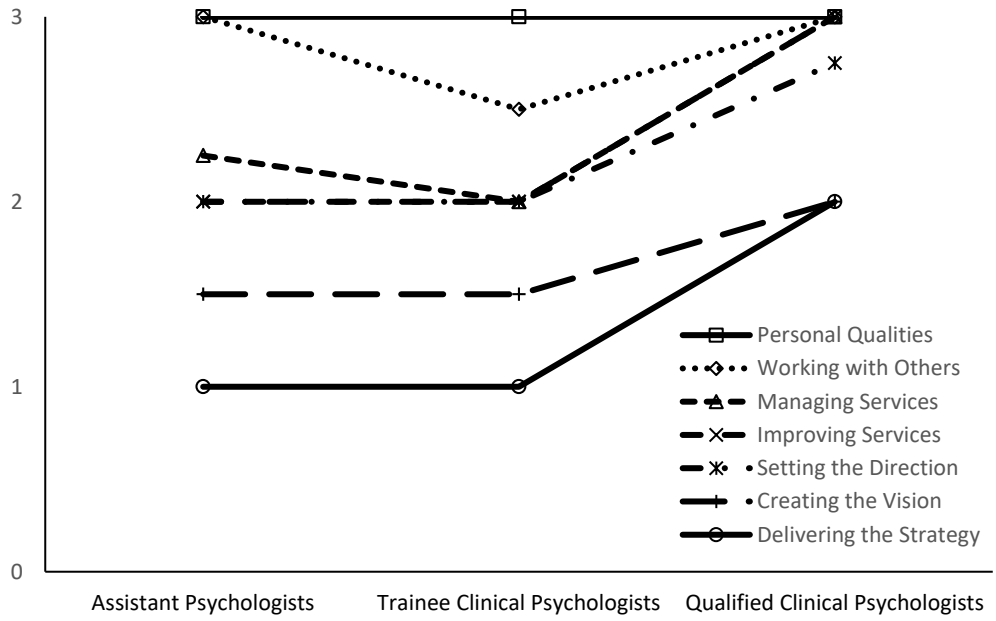

Figure 2. Median scores for each LFSAT domain across job roles

There was a significant difference between job roles (Assistant Psychologist; Trainee Clinical Psychologist; Qualified Clinical Psychologist) across six of the seven domains of the LFSAT:

Working with Others $H(2) = 28.52$, $p = <.001$. Pairwise comparisons with adjusted *p*-values showed that Assistant Psychologists rated themselves as significantly higher than Trainee Clinical Psychologists ($p= .014$, $r= .26$) as did Qualified Clinical Psychologist compared with Trainees ($p= <.001$, $r= -.42$).

Managing Services $H(2) = 24.30$, $p = <.001$. Pairwise comparisons with adjusted *p*-values showed that Qualified Clinical Psychologists rated themselves as significantly higher than Trainee Clinical Psychologists ($p= <.001$, $r= -.39$).

Improving Services $H(2) = 37.75$, $p = <.001$. Pairwise comparisons with adjusted *p*-values showed that Qualified Clinical Psychologists rated themselves as significantly higher than Trainee Clinical Psychologists ($p= <.001$, $r= -.49$) and Qualified Clinical Psychologists rated themselves as significantly higher than Assistant Psychologists ($p= .011$, $r= -.26$).

Setting the Direction $H(2) = 54.74$, $p = <.001$. Pairwise comparisons with adjusted *p*-values showed that Qualified Clinical Psychologists rated themselves as significantly higher than Trainee

Clinical Psychologists (p= <.001, r= -.58) and Qualified Clinical Psychologists rated themselves as significantly higher than Assistant Psychologists (p= <.001, r= -.37).

Creating the Vision $H(2) = 33.49$, p = <.001. Pairwise comparisons with adjusted p-values showed that Qualified Clinical Psychologists rated themselves as significantly higher than Trainee Clinical Psychologists (p= <.001, r= -.42) and Qualified Clinical Psychologists rated themselves as significantly higher than Assistant Psychologists (p= <.001, r= -.39).

Delivering the Strategy $H(2) = 41.48$, p = <.001). Pairwise comparisons with adjusted p-values showed that Qualified Clinical Psychologists rated themselves as significantly higher than Trainee Clinical Psychologists (p= <.001, r= -.46) and Qualified Clinical Psychologists rated themselves as significantly higher than Assistant Psychologists (p= <.001, r= -.44).

There was no significant difference between job roles for the domain of *Demonstrating Personal Qualities* ($H(2)$= 3.61, p=.165).

2.3.2 Research question 2.

What is the relationship between job banding and the leadership competencies?

Consistent with Channer et al (2018) the Median scores for the seven leadership domains for each of the bandings (4-8c) were calculated. Kendall's Tau correlation was used to calculate whether there was a correlation between job banding and each of the LFSAT domains. There was a significant correlation between job banding and six of the seven domains, as the banding increased so did the LFSAT scores: Working with Others (τ_b = .186, p = .002); Managing Services (τ_b = .233, p = < .001); Improving Services (τ_b = .281, p = < .001); Setting the Direction (τ_b = .373, p = < .001); Creating the Vision (τ_b = .339, p = < .001); Delivering the Strategy (τ_b = .415, p = < .001). There was no significant correlation between job banding and the domain of Demonstrating Personal Qualities.

2.3.3 Research question 3.

What is the difference between year of clinical psychology training and each of the leadership competencies as measured by the LFSAT?

Using the median scores for each of the seven leadership domains of the LFSAT, the Kruskal-Wallis test was used to analyse whether there were significant differences between year of Clinical Psychology training and their leadership scores. There were no significant differences

in any of the domains (Personal Qualities: $H(2)= 2.49$, $p= .288$; Working with Others: $H(2)= 1.15$, $p= .563$; Managing Services: $H(2)= .96$, $p= .619$; Improving Services: $H(2)= .21$, $p= .902$; Setting the Direction: $H(2)= 2.46$, $p= .293$; Creating the Vision: $H(2)= 2.98$, $p= .225$; Delivering the Strategy: $H(2)= 2.64$, $p= .268$). This result indicated that Trainee Clinical Psychologists rated themselves similarly in their leadership skills regardless of the year of training they were in.

2.3.4 Research question 4.

How do Assistant Psychologists, Trainee Clinical Psychologists and Qualified Clinical Psychologists experience leadership within their roles and how do they think these skills could be further development within their training/current roles?

Analysis of participants' responses to the free-text questions took the form of an inductive, 'bottom up' approach (Braun & Clarke, 2006) in order to gain a rich understanding of the participants' experiences of leadership within their current role/training and how they considered these leadership skills could further be developed. Taking a social constructionist perspective, the researcher was aware of the process by which their own views (particularly as a Trainee Clinical Psychologist with her own experiences directly related to the research question) would necessarily influence and shape the themes that were identified (Braun, Clarke, & Terry, 2014). Attempts were made to remain grounded in the data by reading and re-reading the participants' responses before making more latent, interpretive claims (Boyatzis, 1998). Higher order themes and sub-themes were identified. This was an ongoing process that continued until the point of saturation; there were no new themes emerging. The themes were continually refined until there was a strong cohesion of data within each theme and that each theme was distinct and clearly defined (Braun & Clarke, 2006). The final hierarchy of themes and sub-themes is included in a mind map (the mind map is split into three sections for ease of reading, see Appendix H). In order to give an indication of the amount of qualitative data collected: Assistant Psychologist responses equalled to an average of 3 X A4 pages (font: Calibri, size: 11 point) per question; Trainee Clinical Psychologists an average of 5.5 A4 pages per question; Qualified Clinical Psychologists an average of 6.6 pages of A4 per question. Due to the vast amount of data involved, only the more prominent themes are discussed here: themes that received 50 or more coded data extracts are discussed (Figure 3. outlines these themes)

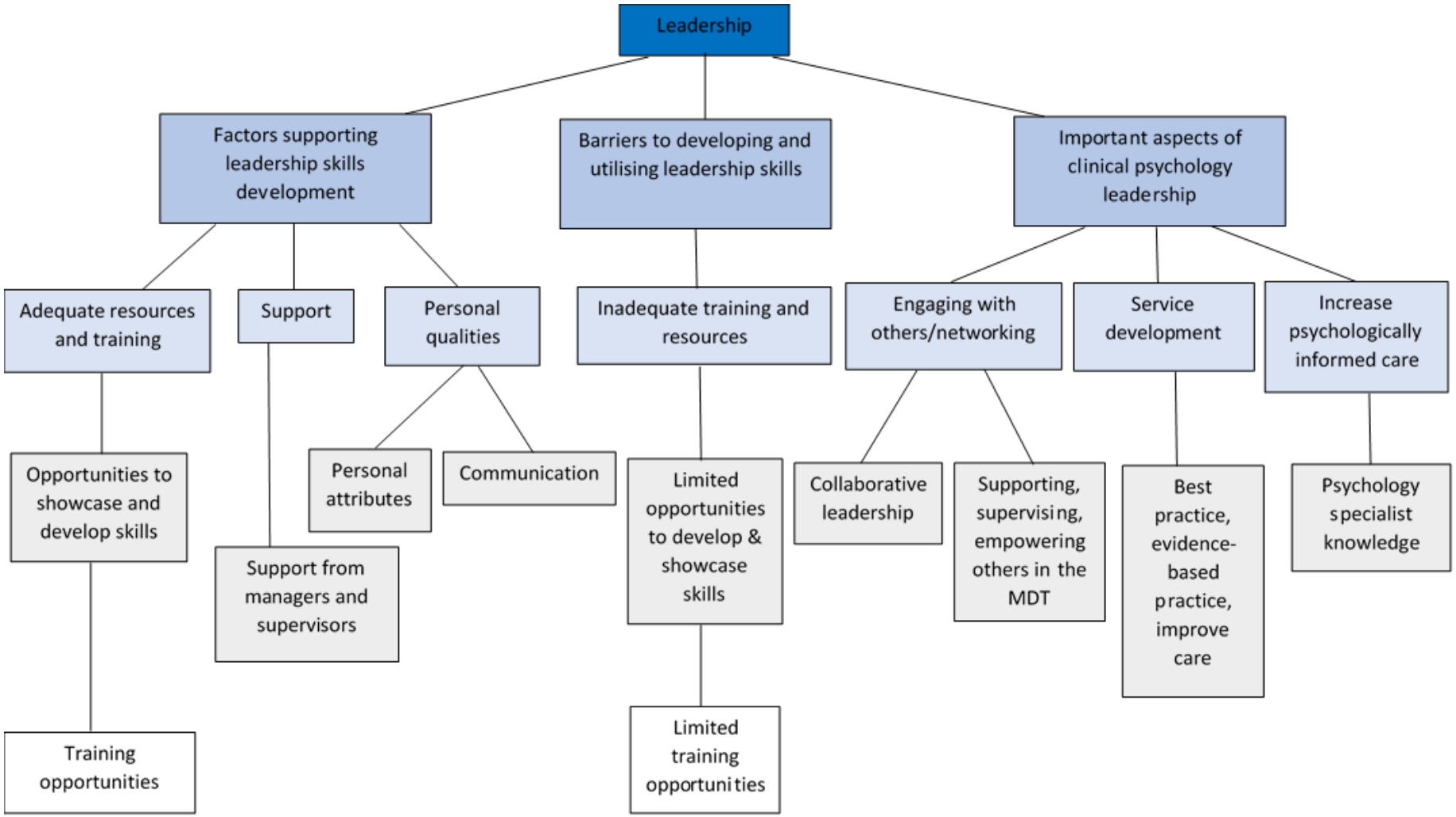

Figure 3. Themes and sub-themes included for the present study

The qualitative software package NVivo 12 was used to organise the data and emerging themes and to store the extracted sections of text relating to each theme.

The final themes from the data were organised under three main 'parent' themes: Factors supporting leadership skills development; Barriers to leadership skills development; and Important aspects for clinical psychology leadership. The themes and sub-themes are typed in bold case for ease of reading.

Factors supporting leadership skills development

Under Factors supporting leadership skills development were three sub-themes: Adequate resources and training; Support; and Personal qualities.

Adequate resources and training. Under this theme participants talked about having opportunities to **showcase and develop their leadership skills**. The majority of items coded under this sub-theme were from the Trainee Clinical Psychologists' responses from questions 1 and 2. However, both Assistant Psychologists and Qualified Clinical Psychologists had items coded for this theme too. Trainee's reported seeing the doctoral course as a really good opportunity to practice and develop skills prior to qualification, for example "clinical leadership skills will be required for qualified posts and therefore important to establish during training" (Trainee Clinical Psychologist). With many trainees reporting that their training programmes were actively supporting leadership skills development whilst on training: "In my training we are supported to develop leadership qualities. For example, all my year group are currently taking part in the 360° leadership program" (Trainee Clinical Psychologist), with some trainee's reporting rich developmental experiences whilst on training:

> We do simulations at uni, discussion and lectures, chairing meetings, will have opportunity to facilitate discussion groups for trainees in lower years, and to facilitate debates. On placements I have been encouraged to do teaching to other staff groups, case presentations to psychology, chairing meetings and to review and discuss leadership framework with supervisors. (Trainee Clinical Psychologist)

Assistant Psychologists tended to focus on opportunities to develop their skills through supervision and the wider MDT as well as training opportunities. Further, opportunities to showcase their leadership skills within the MDT environment "Team meetings (where I can provide input on what I think would help the service to grow and develop), regular supervision and feedback from the team" (Assistant Psychologist). Whereas Qualified Clinical Psychologists

valued the opportunity to share their expertise with other professionals, but also valued resources in order to develop and share their leadership skills:

> The resources available for me have been a safe working environment promoting a sense of belonging and containment, good supervision and the confidence of other people in the service, together with opportunities to link in with other services nationally and present at conferences. (Qualified Clinical Psychologist)

Also under **Adequate resources and training** was the sub-theme **Training opportunities**. Trainee's valued the leadership modules included on the doctoral training, although some felt that leadership could be included earlier on in training rather than left until the final year of training. Assistant Psychologists talked more about in-house training or opportunities to learn through their supervisor, with some able to access external or web-based training. Qualified Clinical Psychologists highlighted more external leadership training opportunities, generally funded by the trust they work for:

> I've been supported by my employer and by partner organisations in leadership skills training, in the provision of coaching, and with access to good leaders who have guided me in my learning. (Qualified Clinical Psychologist)

Support. Under the theme of support was the sub-theme **Support from managers and supervisors**. Qualified Clinical Psychologists particularly tended to highlight this as an important factor in their opportunities to develop and showcase leadership skills closely followed by Trainees. For example, "having a line manager who is supportive and enabling" (Qualified Clinical Psychologist) and "teaching and supervisors encouraging discussions and thinking about opportunities to start working on skills" (Trainee Clinical Psychologist). Assistants also valued supportive supervisors: "my supervisors are keen for me (and other APs) to pursue training opportunities where available and seek out and signpost us to training" (Assistant Psychologist).

Personal qualities. Under the sub-theme personal qualities participants reported **Communication** skills and a number of **Personal attributes** which they recognised in themselves as important in facilitating good leadership skills. Responses related to communication were fairly evenly distributed across Assistants, Trainees and Qualified Clinical Psychologists: "good communication skills, both verbal and written with a diverse range of people, ability to communicate and break complex information down into plain language" (Assistant Psychologist). Further, Assistants, Trainees and Qualified Clinical Psychologists were able to recognise and celebrate various personal attributes they already hold which they felt aided their clinical leadership within their current roles: "I am approachable, kind, diplomatic and willing to listen to

all sides of a story. I tend to take a non-expert approach which works well with other MDT members I think (although maybe not with other psychologists actually!)" (Qualified Clinical Psychologist), "empathy, sensitivity, ambitiousness, integrity" (Trainee Clinical Psychologist) and "I am approachable, warm, empathic, and decisive" (Assistant Psychologist).

Barriers to leadership skills development

Participants highlighted that the barriers to leadership skills development happened when the factors suggested as supporting leadership development were not available or were limited. Discussed here are: **Inadequate training and resources**, which were coded into **Limited opportunities to develop and showcase leadership skills** and **Limited training opportunities**. Limited opportunities to develop and showcase leadership skills appeared more pertinent for Assistant Psychologists and Trainee Clinical Psychologists: "this doesn't seem to be a priority in teaching - clinical skills gets more focus" (Trainee Clinical Psychologist). Suggestions on how this could be improved were offered: "attending formal leadership skills training and encouraging platforms for leadership that fits within my remit or skillset. This may include organising staff team away days" (Assistant Psychologist) and:

> Leadership opportunities at a strategic and operational level should be integrated from the outset of training. The provision of specific leadership placements, perhaps in 3rd year, would also be a helpful addition. (Trainee Clinical Psychologist)

Qualified Clinical Psychologists highlighted that this was problematic when high job demands and 'fire-fighting' within the clinical service meant little opportunity to focus on leadership skills in terms of service development opportunities.

Further, when training is limited this was highlighted as a problem to leadership skills development. This particular barrier was more commonly reported by Qualified Clinical Psychologists, who tended to highlight the quality of leadership training is lacking or not appropriate for the remit of clinical psychology:

> I would like my trust to be prepared to offer or fund training delivered by well evidenced, psychologically-informed models. At present the only option available is the standard trust leadership training which I feel is weak in these areas. (Qualified Clinical Psychologist)

Further, a recognition that formal training in leadership skills should be an ongoing process:

> Better leadership training available for Clinical Psychologists and Trainees. I think leadership thinking and learning should start from the first year of training and with ongoing development throughout training. (Qualified Clinical Psychologist)

Assistant Psychologists also reflected on limited opportunities for training in clinical leadership with priority being given to skills development in other areas of their work:

> There are opportunities to develop understanding about service management and delivery through supporting senior staff, however as an assistant, the primary focus of any training etc that I access is around clinical skills and models. (Assistant Psychologist)

There were no items coded for Trainee Clinical Psychologists for this theme indicating that further training in this area would not be warranted during doctoral training.

Important aspects for Clinical Psychology leadership

Engaging with others/networking was seen as important within all job roles and was generally seen as a skill already held within the person, rather than a taught skill. Building good working relationships with colleagues was something participants generally felt confident in: "confidence to speak to teams and engage with a wide range of staff members. I am good at forming personal working relationships to foster effective working habits" (Trainee Clinical Psychologist) and "I feel confident forming effective working relationships with a range of staff from different disciplines" (Assistant Psychologist). Under this sub-theme were further sub-themes of **Collaborative leadership** and **Supporting, supervising, empowering others in the MDT**. Collaborating with other team members and holding different viewpoints in mind whilst decision making was important for Qualified Clinical Psychologists: "egalitarian style of interacting, collaborative engagement skills" (Qualified Clinical Psychologist) and recognising the strengths of others within the team: "I am collaborative and do not hold an "expert" position in consultation or co-working. I value the specialist skills of others highly and praise others openly for their skills and attempts" (Qualified Clinical Psychologist). This was also important for Trainees and Assistants: "working collaboratively with other people, valuing diversity and differing

perspectives" (Trainee Clinical Psychologist). Offering support or supervision to others in the MDT was hugely important to Qualified Clinical Psychologists: "compassionately supporting others. Helping others to develop and reach their potential" (Qualified Clinical Psychologist) and generally they felt qualified and well equipped to undertake this part of their role confidently: "supervision and consultation as my clinical psychology training and ongoing CPD opportunities have equipped me well for this" (Qualified Clinical Psychologist). For Trainee Clinical Psychologists this tended to be more informal supervision, although some did describe opportunities to formally supervise other staff members whilst on placement: "providing a space for other staff to discuss with me (supervision/consultation), because I think psychologists are skilled in offering this and others find it very valuable" (Trainee Clinical Psychologist). This sub-theme was less prominent for Assistant Psychologist participants, however, there were some descriptions of supporting colleagues within the data:

> I enjoy seeing the work of my colleagues going well and the impact this has on their own confidence and wellbeing. I also enjoy supporting my colleagues to work to their strengths and remain responsive to their aspirations. (Assistant Psychologist)

Service Development was a key aspect of their role for many participants and the need for good clinical leadership skills was important to achieve this:

> [Leadership skills are important] for developing and evaluating services. My clinical leadership extends to an extent beyond psychological therapies for example helping wider services think about referral patterns and service planning. (Qualified Clinical Psychologist)

And:

> I feel that identifying areas where the service can be improved, making suggestions, evaluating the feasibility of your suggestions etc. are things that everyone should be doing. I certainly make an effort to analyse data and scrutinize the way we do things regularly. (Assistant Psychologist)

With some Trainees highlighting their unique position on placements to offer insights into how a service may be developed: "being a trainee you have the knowledge and capacity to think more about change at a systemic/service level and voice ideas that people may not have had when they become too embedded in the system" (Trainee Clinical Psychologist). Under service

development was a further sub-theme of **Best practice, using the evidence-base to effect change and improve services.** This was recognised by all levels of job role, however, more prominently highlighted by Trainee Clinical Psychologists and Qualified Clinical Psychologists: "I need to have a full understanding of best practice guidance and innovative practice to guide service development and strategy" (Qualified Clinical Psychologist). Evaluation and audit skills were considered important to drive change within services and further using the evidence-base and literature to develop new ideas for service development: "I am more confident at drawing on literature and evidence based practise to make suggestions for the service I am on placement" (Trainee Clinical Psychologist).

Increase psychologically-informed care. All levels of job role appeared to recognise the benefits of psychologically-informed care for patients using their services:

> Working from a psychology-led team, leaderships skills are really important because we work in a very different way to other teams. Often we are providing a psychological and holistic understanding of the young person and communicating this to teams that work in a very specific ways with a very specified difficulty. Taking the lead in ensuring young people are thought about as a whole and based on their development is key in ensuring they get the support that they need. (Assistant Psychologist)

And:

> I believe clinical leadership skills…to create psychologically-informed environments so that service users are receiving the best possible care. I hope to build these skills up in my current role as trainee. (Trainee Clinical Psychologist)

Linked with this sub-theme, was a further sub-theme of **Psychology specialist knowledge**, items coded at this sub-theme were regarding specific knowledge and skills unique to psychology such as formulation skills, formulating team dynamics and reflective practice: "my formulation skills help me to work effectively in systems like social care and make visible changes" (Qualified Clinical Psychologist) and "I feel confident in sharing my systemic perspective on situations and in challenging established narratives" (Trainee Clinical Psychologist).

2.4 Discussion

This section will outline and discuss the findings from research questions 1-3, the qualitative findings from research question 4 will be woven into the discussion points in order to deepen and enrich our understanding of the quantitative findings.

In consideration of the first research question, this study found that Qualified Clinical Psychologists' self-reported leadership skills were significantly higher than those of Assistant Psychologists on four of the LFSAT domains (*Improving Services; Setting Direction; Creating the Vision; Delivering the Strategy*). Qualified Clinical Psychologists scored significantly higher than Trainee Clinical Psychologists across six of the seven domains of the LFSAT (*Working with Others; Managing Services; Improving Services; Setting Direction; Creating the Vision; Delivering the Strategy*). This finding is consistent with Channer et al (2018), who compared Trainees to Qualified Clinical Psychologists, and found Qualified Clinical Psychologists reported significantly higher leadership skills than Trainee Clinical Psychologists, in the same six domains as the present study. In the present study, Assistant Psychologists scored significantly higher than Trainee Clinical Psychologists in the domain of *Working with Others*. There were no significant differences between job roles shown in the *Demonstrating Personal Qualities* domain. Channer and colleagues reflected that it is likely that, once qualified, Clinical Psychologists feel more confident in utilising leadership skills and therefore scored higher when self-reporting their leadership skills. Further, they reflected that, as it is an expected part of a Qualified Clinical Psychologists role, they are likely to be utilising these leadership skills more often and therefore building their leadership competencies. These reflections are supported by the qualitative data in the present study. Participants' responses suggested that there is an expectation that, once qualified, Clinical Psychologists should take on leadership positions within an MDT.

To account for the lack of differences they found within the Personal Qualities domain between Trainee and Qualified Clinical Psychologists, Channer et al (2018) posited that this domain may be describing qualities that people going into a career in psychology may already possess. The qualitative results from the present study suggest that, at all levels of the job role, participants acknowledged a set of personal attributes and qualities that were part of them that aided leadership skills and that this set of qualities is not likely to be taught, but innate within them. This could account for the lack of significant result for the domain of Personal Qualities between job roles. This idea appears consistent with the concept of humility and drive (Collins, 2001) discussed briefly in Chapter 1, section 1.1.3.3. Collins (2001) described various levels of leadership, with Level 5 as the highest. The key qualities he argued for within Level 5 leadership

include *intense professional will* alongside *humility*. He argued that without humility, as a key *personal quality* of a leader, any positive changes would likely not be sustained and could lead to disruptive and dangerous decisions for an organisation. Storey and Holti (2013) further proposed an authentic style of leadership and outlined Irvine and Reger's (2006) eight attributes of leadership: clarity, integrity, courage, service, trust, humility, compassion, vulnerability. It could be that the career of Clinical Psychology attracts people with a certain set of personal qualities that may fit with this picture, and may also provide a good basis on which to build further leadership skills. Further, the NHS has emphasised the need for more compassionate leadership (NHS England, 2014) in light of recent reports scrutinising the quality of patient care such as the Francis report (Francis, 2013) for example (Massie, 2016). Massie (2016) argued that compassionate leadership enables staff to feel valued, and by increasing feelings of self-worth within the team, this in turn will impact on the quality of care offered to patients.

Assistant Psychologists rated themselves as significantly higher than Trainee Clinical Psychologists in one of the leadership domains: *Working with Others*. Further, there was a general trend of larger effect sizes for the differences between Trainees and Qualified Clinical Psychologists than between Assistants and Qualified Clinical Psychologists, which suggests that Trainees were rating themselves as lower than Assistants. One possible explanation for this may be that Trainees' experience of being continually assessed and scrutinised during the doctoral training could impact on their perceived levels of confidence in leadership skills. Previous research found that Trainees indeed tended to experience low self-esteem, anxiety and stress during training and attributed this to a lack of appropriate work-life balance and the demands of training (Hill, Wittkowski, Hodgkinson, Bell & Hare, 2015). The qualitative data from the present study also suggests that Trainees generally feel that due to short placements of 6-9 months there is limited opportunities to utilise leadership skills and effect change within services, and that the focus tends to be on clinical skills development. Assistant Psychologists may have more scope to utilise and develop these skills as they are embedded within the teams and tend to be part of the team for longer periods of time.

In respect to research question two, there were significant relationships between job bandings and self-reported leadership competencies for six of the seven leadership domains in the LFSAT (with the exception of the *Personal Qualities* domain). This means that as scores in leadership competencies increased so did the job banding. The Channer et al (2018) paper only found a significant correlation in job banding and leadership score for the domain of *Delivering the Strategy*. It is worth noting, however, that Channer and colleagues looked at correlations for bandings post-qualification (7-9) whereas the present study looked at correlations for bandings 4-8c, so comparisons between results should be considered with caution. It may be that the

inclusion of Assistant Psychologists and Trainee Clinical Psychologists scores in the present study account for the additional significant correlations found in the present study. The differing results here may also indicate a shift in terms of seeing more development and progression in leadership skills for clinical psychologist pre-qualification (BPS, 2014) through to clinical director level. The results support the framework outlined by the BPS (2010) in their Clinical Psychology Leadership Development Framework (CPLDF) and indicate that the intended progression of skills throughout the job role bandings may be occurring. Since the BPS (BPS, 2010; BPS, 2014) developed the CPLDF and changed the competencies to include leadership within the doctoral training programmes, there appears to have been an increase in leadership focus within the field (e.g. Clinical Psychologists as Future Leaders, 2017; and development events for newly qualified psychologists including leadership e.g. BPS, 2019).

The qualitative data from this study provides further insight into the results. Participants' responses showed a trend for Assistant Psychologists considering leadership skills as important to the role including beginning to be able to develop and utilise such skills in their roles. Trainees talked of having more focus during their training, particularly in the final year of training, on leadership skills development. Qualified Clinical Psychologists talked of utilising the skills more consistently in their day to day roles, particularly more experienced and higher banded Psychologists, where the focus of job role is on strategic planning and service develop aspects. Participants from all levels of banding reflected on an expectation, particularly once qualified, for psychologists to take on leadership roles within their Multi-Disciplinary Teams (MDT).

The findings for research question three were consistent with Channer et al (2018). In that, there were no significant differences amongst Trainees across year groups in any of the domains. This indicates that Trainees do not necessarily experience an increase in leadership skills development throughout their training. However, as the LFSAT is a self-rated tool, it may be that their scores reflect the rater's level of confidence in their abilities rather than their actual ability. It seems fair to suggest that Trainees' experience a reduction in their self-esteem during training as discussed earlier (Hill et al, 2015). This could be ensuring their leadership scores remain lower until qualification and the rigor of training is over, as they are unable to recognise their own abilities at the time of training. These findings may also be due to limitations within the measure used (discussed in section 2.4.2). The qualitative data from the study suggests that much of the leadership skills training is included in the third year of training, with a higher focus on clinical skills in the first two years. Following the BPS competency changes in 2014, training programmes are now providing a leadership module in year 3 of the doctorate, however, the qualitative data from the present study suggests that leadership skills would be better supported

and developed if there was more emphasis earlier on in training and more opportunities whilst on placement for experiential learning of leadership skills.

The qualitative data from the present study emphasised a collaborative style of leadership described by all levels in the clinical psychology career pathway. This way of working and style of leadership fits with shared leadership models which are the current focus in the NHS (Storey & Holti, 2013; Forsyth & Mason, 2017). The NHS are attempting to counteract the hierarchical leadership models of the past to focus more on leadership from within. Encouraging leadership from clinicians with the knowledge and experience to understand the challenges facing the NHS and leading change from ground-level. This requires a multi-disciplinary approach with a focus on good working relationships (Forsyth & Mason, 2017). Storey and Holti (2013) outlined the importance of understanding others' perspectives, being holistic in understanding a clients' needs and working in coalition with others. All these skills were reflected on by participants in the present study and further highlights the unique skills training that clinical psychologists go through in building systemic thinking, and being able to take a multi-perspective approach in their work.

2.4.1 Implications

Although the quantitative results of the present study do not suggest that leadership skills are being developed during the doctoral training since the introduction of the BPS (2014) competencies (i.e. there were no significant differences between year group for Trainees); this is likely to be due to limitations regarding the measure used within this study (see section 2.4.2). Other possible explanations might include that training programmes likely focus leadership skills development in the latter part of training; therefore, participants may have not yet completed that part of the training process at the point of participation in the present study. The quantitative findings, however, are not consistent with the qualitative data, which suggests Trainees do experience some useful training and development during the doctorate programme in leadership skills. The qualitative results generally show a positive picture for the outlook of Clinical Psychology within the ever-changing NHS. The qualitative results indicate that Clinical Psychologists may have a unique skills-set that are useful for aspects of leadership such as service development and effective team management. The qualitative data in the present study suggests that psychologists are passionate about the future of Clinical Psychology and recognise the need to be involved not only in delivering good quality therapeutic care for patients but also to be involved in planning and structuring what that care should look like by increasing psychologically-informed care across the board. Forsyth and Mason (2017) highlighted the importance of a strong professional identification in increasing clinician's level of agreement with shared

leadership models. It appears that participants in the present study held high levels of professional identification, seeing themselves as having a unique set of skills that could benefit wider teams and a passion for the profession. This places them well to fit with the shared leadership models adopted by the NHS in recent times (NHS Leadership Academy, 2010).

The present study also identifies areas that remain in need of development. Assistant Psychologists would value more opportunities to begin to develop their leadership skills early on in their careers as they recognise this as a key aspect in their future careers. In support, those Assistants who are offered these opportunities reported feeling valued and listened to within the MDT. This could be achieved through opportunities to present at team meetings or opportunities to lead on particular projects within a service, for example, conducting an audit.

Trainee Clinical Psychologists valued the third-year focus on leadership skills development but felt that these opportunities for training could come earlier in the programme and could be further supported with more opportunities on placement.

Qualified Clinical Psychologists noted the need for ongoing support and funding for their continued professional development within the area of leadership but recognise that this can be problematic within stretched services. Ham (2003) suggested that within hospitals and primary care practices, clinicians, with in-depth knowledge and understanding of the field and the needs of the service, would be better served to lead change. However, time and resources need to be offered clinicians in order for them to achieve this and this should be realised by policy makers and managers (Ham, 2003). Qualified Clinical Psychologists would also value access to good quality, psychologically informed, leadership skills training that is relevant to the field of clinical psychology. A recent leadership project for junior clinical psychologists showed positive and promising results for this type of programme (Clinical Psychologists as Future Leaders, 2017).

Further, the BPS have highlighted recently that the NHS Improvement guidance recognises psychologists have a great contribution to make to leadership within the NHS (BPS, 2019). The BPS were consulted, and endorsed the development of, the new NHS Improvement guidance: Clinical Leadership-A Framework for Action (NHS, 2019) which recognised the challenges the NHS is facing in terms of restricted financial resources and limited workforce. The guidance identified the importance of professionally diverse teams and leaders at board level in order to face these challenges. It aimed to change the structures and expectations of role that are currently preventing Allied Health Professional's, such as psychologists, from easily accessing these positions, which have traditionally sat with doctors and nurses. It is hoped that this study goes some way in understanding what progress may have already been made in terms of

leadership skills development in Clinical Psychologists and where further improvements can be made in order that they may increasingly represent the field at higher levels within the NHS.

2.4.2 Strengths and Limitations

A strength of the present study was the number of participants and that participants were drawn from across the UK in the hope that the results will be more generalizable. Further, that the participants of this study were all working within the profession that was under examination is a strength, particularly given the limitations highlighted in the literature review (Chapter. 1.) relating to the high use of student populations in leadership research.

The addition of qualitative data to this study was a further strength. Participants' contributions added weight and greater depth of understanding of their experiences of leadership throughout the clinical psychology career pathway and further enabled interpretation of the quantitative results.

Unfortunately, it was not possible to make direct comparisons to Channer et al (2018), as the raw data was not available; this would have been useful in order to examine whether there had been an increase in Trainees scores between the present study's participants and participants in the Channer study.

A limitation of the present study was the use of the LFSAT, which was designed to be used by clinicians as a self-development tool and not necessarily for research purposes. The measure, therefore, had not been robustly tested within research settings, which calls into question it's reliability, as it has not been tested to show consistency within research settings. In terms of the validity of the measure, it may be the case that the LFSAT is a measure of job role/task rather than capability of respondents. For example, within the 'Setting Direction' domain, one item is worded: 'I use data and information to suggest improvements to services'. This would suggest that if it were not in the rater's current job role to carry out such a task, then they may rate themselves low on this item, however, this does not necessarily reflect their capability to carry out this task should they be required to. Further, there appeared to be a ceiling effect occurring in the quantitative results of this study, particularly for the domain of 'Personal Qualities' and for the Qualified Clinical Psychologists in 4 of the 7 domains. The term 'ceiling effect' describes when the highest score, or near to the highest score, is reached on a measure and indicates that the measure may not be accurately measuring what it is intending to, or may not be sensitive enough to capture differences between participants, or does not indicate a true representation of the participants functioning on the scale (Salkind, 2010). It is likely this occurred because most people would consider themselves as holding a set of personal qualities relevant to the job they are in

(and therefore rate themselves with the highest, or close to the highest score), and for Qualified Clinical Psychologists with more experience in the field rating themselves highly on the majority of the domains. The LFSAT may therefore not be sensitive enough to measure differences between participants in this domain. Due to these limitations, it is important to consider the quantitative results from this study tentatively and consider that they may not reflect a true picture of the development of clinical leadership skills across the clinical psychology career pathway. As discussed in the literature review (Chapter.1.) there is a need for the development of reliable and valid measures of leadership competencies. Whilst the LFSAT has its limitations, it is at least founded on a body of research by the NHS Leadership Academy (2011) in the development of their leadership model the CLCF. Further, the BPS utilised the domains to develop the Clinical Psychology Leadership Development Framework, which is widely used within the profession as a personal and professional development tool around leadership (BPS, 2010). In the absence of robust findings from the quantitative aspects of the present study, the qualitative data does offer important and trustworthy information from participants contributions.

2.4.3 Directions of future research

It will be important for future research to consider using leadership measurement tools that are standardised and validated for use in research. Whilst the LFSAT was helpful in assessing self-reported leadership competencies, its purpose was to aid clinicians in assessing and planning leadership skills development within their role. In consideration of this, the NHS Leadership Academy has updated their leadership model called the Healthcare Leadership Model: The nine dimensions of leadership behaviour (NHS Leadership Academy, 2013) to reflect this. The model, which is centred on the concept of inspiring a shared purpose, proposes the importance of personal qualities such as self-awareness, self-confidence and personal reflections within leadership. These aspects were supported by participants in the present study, who were able to highlight these qualities within their responses. It would be useful for future researchers and clinicians to consider this new framework when assessing and planning their leadership developmental needs.

Future research should continue to track the progress of leadership development within the career pathway of clinical psychology and, competency-based measures, which have been robustly tested within the field of research to establish their reliability and validity, should be used. Further, the qualitative data from the present study highlighted many positive aspects to the training experience in terms of developing leadership skills but these appeared to vary across Trainee participants. For example, some Trainees reported multiple and varied opportunities to

learn and practice leadership skills throughout the doctorate, and others reported that leadership did not appear to be a priority during training when compared with clinical skills development. Therefore, it would be interesting for future research to explore the different methods doctoral programmes are using in order to develop leadership skills within their Trainees and to evaluate the effectiveness of these various methods. It would also be interesting to see how the various doctoral programmes evaluate and assess the competencies required around leadership.

2.4.4 Conclusion

In summary, the present study found that there were differences in self-reported leadership between Assistant Psychologists, Trainee Clinical Psychologists and Qualified Clinical Psychologists. The general trend supported the idea of a progression in leadership skills throughout the clinical psychology career pathway, however, there were some exceptions to this. For example, in the domain of *Working with Others,* Assistant Psychologists' self-reported scores were higher than those of Trainees'. Possible reasons for this were discussed, for example, the LFSAT measure could be measuring tasks that are included in job role rather than ability or competency of participants. However, the qualitative data from the present study was able to highlight areas in which leadership skills development could be improved and built on. For example, Assistant Psychologists having the leadership opportunities early on in their career. Trainee Clinical Psychologists being better supported during placements to utilise and develop leadership skills. Qualified Clinical Psychologists having access to funding and good quality, psychologically-informed leadership training opportunities in order to further develop their skills and knowledge. Overall, the present study found that Clinical Psychologists are well placed to provide good clinical leadership within the NHS and offer a unique skills set that is suited to the more collaborative and shared leadership models that have become the focus for the NHS in recent times. Ultimately working towards the goal of improving the quality of care offered to patients within the NHS.

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Appendices

Appendix A Quality Assessment

Brandt & Edinger (2015)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes (Pg47 & pg49) *Outlines hypotheses clearly (which include subjects and area of investigation).*			
2	Study design evident and appropriate?		Partial (pg49-51) *Study design not clearly identified but seems appropriate to address hypotheses.*		
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial (pg49-50) *On the whole appropriate sampling, however, no exclusion criteria described. Also, team leaders were*		

			recruited via non=compulsory course whereas team members recruited as part of compulsory course (may influence motivation/type of personality of participant)		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?		Partial (pg49-50) *Subject demographics not sufficiently described, of particular note, gender of team members not described (previous research shows that this can impact on how p's rate team leaders), also, no age included for either team leaders or team members.*		
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A

7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes (pg50-51) *Clear description of measures used and response options.*			
9	Sample size appropriate?	Yes (pg51-59) *Statistically significant results relating to major outcomes indicate appropriate sample size.*			
10	Analytic methods described/justified and appropriate?	Yes (pg51-59) *Multiple t tests used and appropriate.*			
11	Some estimate of variance is reported for the main results?	Yes (pg51-59) *Standard deviations provided for each t test.*			
12	Controlled for confounding?		Partial (pg49-50) *Team members conducted evaluations anonymously. Group means not used to avoid impoverished*		

			analysis and to increase generalisability (t tests used). However, team member's sex and personality not taken into account (previous research states that this can impact on their appraisal of others leadership). Also, participants were students-results may not be generalizable to wider population.		
13	Results reported in sufficient detail?	Yes (pg51-59) *Results include major outcomes and all mentioned secondary outcomes.*			
14	Conclusions supported by the results?		Partial (pg60-62) *Although conclusions are supported by the results, the significant sex differences reported, for example, had very small effect sizes and although*		

			this is included in results section, this is not discussed in relation to conclusions made in discussion section.		
No of times ticked		6	5	0	3
Scores		12	5		
Total		28- (N/A X 2)= 28-0 = 28 **17/28**			

Brandt & Laiho (2013)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes (pg 45)			
2	Study design evident and appropriate?	Yes			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial (pg 50) *Inclusion/exclusion criteria not well defined (e.g. Leaders based on whether they consider themselves leader and consider that they have subordinates) Also, recruited from a course designed to enhance leadership skills (may involve bias in personality type likely to attend such courses)*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?		Partial (pg 50/51) *Gender, one of the key variables was*		

			assessed by referring to the first name on respondents forms. But, generally clear reporting of other subject characteristics (e.g. mean age, job backgrounds etc of leaders and subordinate groups).		
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes (pg 51-52) *Clear description of instruments used and response options.*			
9	Sample size appropriate?		Partial (p52-53, means in table in appendix) *No reporting of effect sizes. Some statistically*		

			significant results reported with absence of variance estimates.		
10	Analytic methods described/justified and appropriate?		Partial (pg52-53) *Analytic methods are not reported and have to be guessed at but are probably appropriate.*		
11	Some estimate of variance is reported for the main results?			No (pg53-54 and appendix) *Variance estimates not provided for main results relating to personality.*	
12	Controlled for confounding?				N/A
13	Results reported in sufficient detail?		Partial (pg53-54) *Results reported for all major outcomes, however, only means provided for some in appendix, no variance reported and results not clearly written so confusing to work out.*		

14	Conclusions supported by the results?	Yes (pg55-57)			
No of times ticked		4	5	1	4
Scores		8	5		
Total		28- (N/A X2)= 28-8 =20 **13/20**			

De Hoogh, Hartog & Nevicka (2015)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes (Abstract and pg478-480)			
2	Study design evident and appropriate?	Yes (pg480-481)			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial (pg480-481) *On the whole subject selection described and appropriate, however, potential for bias in that leaders were asked to give subordinate with whom they worked most regularly with the survey (could give to subordinates who may rate them most favourably).*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes (pg481) *Subject demographics reported and clear: age and gender of both*			

		leaders and subordinates; supervisor-subordinate tenure, tenure of leader, subordinate tenure, type of organisation, total subordinates.			
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes (pg481-482) *Clear description of questionnaires/measures used and response options.*			
9	Sample size appropriate?	Yes *Sample size appears appropriate given significant results.*			
10	Analytic methods described/justified and appropriate?	Yes (pg483) *Analytic methods described and appropriate-means, standard deviations and correlations reported.*			

11	Some estimate of variance is reported for the main results?	Yes (pg484) Appropriate variance estimates provided- standard deviations.			
12	Controlled for confounding?	Yes (pg482-483) *Listed control variables*			
13	Results reported in sufficient detail?	Yes (pg483-486)			
14	Conclusions supported by the results?	Yes			
No of times ticked		10	1	0	3
Scores		20	1		
Total		28- (N/A X2)= 28- 6= 22 **21/22**			

Foti, Bray, Thompson & Allgood (2012)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes			
2	Study design evident and appropriate?	Yes			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial *College students used as participants may not be generalizable to wider population, although did have a rating for leadership experience.*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes			
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?		Partial (pg705) *Says participants*		

			also completed several distracter measures but doesn't state why or what they were.		
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes (pg704-705)			
9	Sample size appropriate?	Yes			
10	Analytic methods described/justified and appropriate?	Yes			
11	Some estimate of variance is reported for the main results?				N/A?
12	Controlled for confounding?				N/A
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes			
No of times ticked		8	2	0	4
Scores		16	2	0	
Total		28- (N/A X2)= 28-8= 20 **18/20**			

Huszczo & Endres (2017)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes (abstract and intro)			
2	Study design evident and appropriate?	Yes *Design easily identified and appropriate to the purpose of study.*			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial (pg309) *Target populations mentioned but sampling strategy unclear.*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?		Partial (pg309) *Gender and student population reported, however, no other subject characteristics reported e.g. age*		
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A

7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?		Partial (pg309) *Measures used reported but not described in sufficient detail, however, probably acceptable.*		
9	Sample size appropriate?	Yes			
10	Analytic methods described/justified and appropriate?	Yes (pg309)			
11	Some estimate of variance is reported for the main results?	Yes *Standard deviations provided where appropriate.*			
12	Controlled for confounding?				N/A
13	Results reported in sufficient detail?	Yes (pg309-312)			
14	Conclusions supported by the results?	Yes			
No of times ticked		7	3		4
Scores		14	3	0	
Total		28- (N/A X2)= 28-8= 20 **17/20**			

Johnson, Murphy, Zewdie & Reichard (2008)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes (pg41)			
2	Study design evident and appropriate?	Yes *Each of the four studies conducted within this paper had appropriate study design described.*			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial *Use of undergraduate student population to obtain credit means results can't be generalizable to general population, particular when considering work and leadership factors (students may not have sufficient experience*		

			in the work environment to give considered response.		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes *Gender, age, number of years work experience described where appropriate.*			
5	If interventional and random allocation was possible, was it reported?		Partial *Randomization mentioned, but method is not.*		
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes *Each study described measures and response options clearly.*			
9	Sample size appropriate?	Yes *Power analysis conducted where appropriate to ensure appropriate sample size.*			
10	Analytic methods described/justified and appropriate?	Yes *Analytic methods for*			

		each study described and appropriate.			
11	Some estimate of variance is reported for the main results?	Yes *Standard deviations provided where appropriate.*			
12	Controlled for confounding?	Yes *E.g. manipulation checks (for leadership style and leader sex) used in Study 2.*			
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes			
No of times ticked		10	2	0	2
Scores		20	2		
Total		28- (N/A X2)= 28- 4= 24 **22/24**			

Lemoine, Aggarwal & Steed (2016)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes			
2	Study design evident and appropriate?	Yes *Both study designs appropriate.*			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?	Yes *Student population, however, seems appropriate given investigating leader emergence in groups.*			
4	Subject (and comparison group, if applicable) characteristics sufficiently described?		Partial *Although both studies describe many useful subject characteristics incl. gender, average number of years work experience, ethnic background. Neither include age.*		
5	If interventional and random allocation was possible, was it reported?		Partial *Randomization*		

			mentioned but method not described.		
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes *Clear description of measures used and response options.*			
9	Sample size appropriate?	Yes			
10	Analytic methods described/justified and appropriate?	Yes			
11	Some estimate of variance is reported for the main results?	Yes			
12	Controlled for confounding?	Yes *Listed control variables to reduce confounding.*			
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes			
No of times ticked		10	2	0	2
Scores		20	2	0	

Total		28- (N/A X2)= 28- 4= 24 **22/24**

McKee, Lee, Atwater & Antonakis (2018)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes (291-296			
2	Study design evident and appropriate?	Yes			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?	Yes (pg297)			
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes (pg297) *Age, gender, no. of countries sample taken from, break-down of companies/sector*			
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?				N/A

8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes (pg297-298)			
9	Sample size appropriate?	Yes (pg298)			
10	Analytic methods described/justified and appropriate?	Yes (pg298-299)			
11	Some estimate of variance is reported for the main results?	Yes *Reported and discussed*			
12	Controlled for confounding?	Yes (pg297) *Some reporting of control for confounding e.g. data collected anonymously via online platform; only aggregated information given to managers.*			
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes.			
No of times ticked		11			3
Scores		22			
Total		28- (N/A X2)= 28-6= 22 **22/22**			

Miller Burke & Attridge (2011)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes (pg212-213)			
2	Study design evident and appropriate?	Yes (pg213)			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial (pg213) *Sampling process described but only collected participants from authors' professional and social network.*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes (pg213) *Age and sex reported as minimum plus race, marital status, and location also reported.*			
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A

7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?		Partial *Measures of personality described in detail and appropriate (in part 1 of paper), however, other measures (not related to lit review question) created by authors described but not standardised or tested for validity.*		
9	Sample size appropriate?			No *Sample size seems small and non-significant results in relation to personality seem surprising maybe due to too small sample size.*	
10	Analytic methods described/justified and appropriate?	Yes			
11	Some estimate of variance is reported for the main results?	Yes			

12	Controlled for confounding?				N/A
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes			
No of times ticked		7	2	1	4
Scores		14	2	0	
Total		28- (N/A X2)= 28-8= 20 **16/20**			

Ozalp Turetgen, Unsal & Erdem (2008)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes			
2	Study design evident and appropriate?	Yes			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial *Opportunity student population sample, may not be generalizable to wider population.*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes (pg598)			
5	If interventional and random allocation was possible, was it reported?		Partial (pg599) *Although care taken into the composition of the groups to control for potential confounding variables, there was mentioned of then randomly assigning participants to groups but no*		

			description of method.		
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?			No *Not reported; it is not clear whether participants were told before or after group exercise that the purpose was to investigate leader emergence.*	
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes (pg600-603)			
9	Sample size appropriate?	Yes			
10	Analytic methods described/justified and appropriate?	Yes			
11	Some estimate of variance is reported for the main results?	Yes			
12	Controlled for confounding?	Yes *Some attempt at controlling for confounding through composition of the groups.*			
13	Results reported in sufficient detail?	Yes			

14	Conclusions supported by the results?	Yes			
No of times ticked		10	2	1	1
Scores		20	2	0	
Total		28- (N/A X2)= 28-2= 26 **22/26**			

Sudha & Shahnawaz (2016)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes			
2	Study design evident and appropriate?	Yes			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial *'Sampling method was purposive and snowball sampling method'? No inclusion/exclusion criteria described but not obviously inappropriate.*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?		Partial *Only gender and department of work, no age etc reported.*		
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A

7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes (pg31-32)			
9	Sample size appropriate?	Yes			
10	Analytic methods described/justified and appropriate?	Yes			
11	Some estimate of variance is reported for the main results?	Yes			
12	Controlled for confounding?		Partial *Confounding not mentioned but not considered to have seriously distorted results*		
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes			
No of times ticked		8	3		3
Scores		16	3		
Total		28- (N/A X2)= 28-6= 22 **19/22**			

Vecchio & Anderson (2009)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes			
2	Study design evident and appropriate?	Yes			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial *Although subjects described and selection process appropriate, sampling frame is not clear and no inclusion/exclusion criteria described.*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes			
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?				N/A

8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes (pg168-169)			
9	Sample size appropriate?	Yes			
10	Analytic methods described/justified and appropriate?	Yes			
11	Some estimate of variance is reported for the main results?	Yes			
12	Controlled for confounding?	Yes (pg168) *Reported on controlling confounders by randomly selecting one peer and one subordinate for each focal manager-see paper for full description.*			
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes			
No of times ticked		10	1	0	3
Scores		20	1		
Total		28- (N/A X2)= 28-6= 22 **21/22**			

Vial & Napier (2018)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes			
2	Study design evident and appropriate?	Yes			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?		Partial *Participants from Amazon Mechanical Turk-not clear what this is.*		
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes (pg5)			
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?		Partial *In both studies, it appears that participants were*		

			blinded to full objective of the study until after completion but not fully clear whether this is the case.		
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes			
9	Sample size appropriate?	Yes *Power calculations used to ensure appropriate sample size for both studies.*			
10	Analytic methods described/justified and appropriate?	Yes			
11	Some estimate of variance is reported for the main results?	Yes			
12	Controlled for confounding?				N/A
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes			
No of times ticked		9	2		3
Scores		18	2		
Total		28- (N/A X2)= 28-6= 22 **20/22**			

Wille et al (2018)

Quality Assessment (Standard Quality Assessment Criteria for Evaluation Primary Research papers from a Variety of Fields; Kmet, Lee & Cook, 2004)

Criteria		Yes (2)	Partial (1)	No (0)	N/A
1	Question/objective sufficiently described?	Yes			
2	Study design evident and appropriate?	Yes			
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?	Yes			
4	Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes			
5	If interventional and random allocation was possible, was it reported?				N/A
6	If interventional and blinding of investigators was possible, was it reported?				N/A
7	If interventional and blinding of subjects was possible, was it reported?				N/A
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?	Yes			

9	Sample size appropriate?	Yes			
10	Analytic methods described/justified and appropriate?	Yes			
11	Some estimate of variance is reported for the main results?	Yes			
12	Controlled for confounding?				N/A
13	Results reported in sufficient detail?	Yes			
14	Conclusions supported by the results?	Yes			
No of times ticked		10	0	0	4
Scores					
Total		28- (N/A X2)= 28-8= 20 **20/20**			

Appendix B. Ethics Approval

Approved by Faculty Ethics Committee - ERGO II 41732.A2

UNIVERSITY OF Southampton

ERGO II – Ethics and Research Governance Online https://www.ergo2.soton.ac.uk

Submission ID: 41732.A2
Submission Title: Exploring Clinical Leadership Competencies within the Clinical Psychology Career Pathway (Amendment 2)
Submitter Name: Ana Ambrose

Your submission has now been approved by the Faculty Ethics Committee. You can begin your research unless you are still awaiting any other reviews or conditions of your approval.

Comments:

-

Click here to view the submission

TId: 23011_Email_to_submitter___Approval_from_Faculty_Ethics_committee__cat_B___C_ Id: 98280

A.Ambrose@soton.ac.uk coordinator

Appendix C Leadership Framework Self Assessment Tool

The Leadership Framework
Self assessment tool

Leadership in the health and care services is about delivering high quality services to patients by:

- demonstrating personal qualities
- working with others
- managing services
- improving services
- setting direction
- creating the vision, and
- delivering the strategy.

Staff will exhibit a range of leadership behaviours across these seven domains dependent on the context in which they operate. It is essential that all staff are competent in each of the five core leadership domains: **demonstrating personal qualities, working with others, managing services, improving services** and **setting direction**. The other two domains, **creating the vision** and **delivering the strategy**, focus more on the role and contribution of individual leaders.

To help users understand and apply the Leadership Framework each domain is divided into four elements and each of these elements is further divided into four descriptive statements which describe the behaviours all staff should be able to demonstrate.

The Clinical Leadership Competency Framework (CLCF) and Medical Leadership Competency Framework (MLCF) are also available to specifically provide staff with clinically based examples and learning and development scenarios across the five core domains shared with the Leadership Framework.

Please visit www.leadershipacademy.nhs.uk/lf to learn more about the framework and how it can be used and applied.

CLCF/MLCF

Self assessment tool

This self assessment tool aims to help you manage your own learning and development by allowing you to reflect on which areas of the leadership framework you would like to develop further.

Please note that the information you provide is not stored anywhere on the website. We recommend you **download and save** this document so that you can refer back to it when reviewing your development plans.

A development module is available to support your leadership development at www.leadershipacademy.nhs.uk/leadership-development-module

You will also find a personal action plan template starting on page 10.

NHS Leadership Academy

1. Demonstrating Personal Qualities

Effective leadership requires individuals to draw upon their values, strengths and abilities to deliver high standards of service. To do so, they must demonstrate effectiveness in:

- **Developing self awareness** by being aware of their own values, principles, and assumptions, and by being able to learn from experiences
- **Managing yourself** by organising and managing themselves while taking account of the needs and priorities of others
- **Continuing personal development** by learning through participating in continuing professional development and from experience and feedback
- **Acting with integrity** by behaving in an open, honest and ethical manner.

Look at statements below:

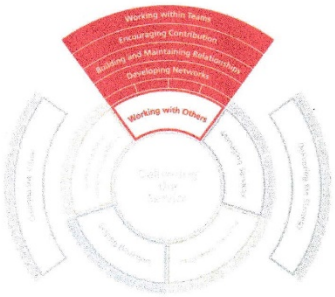
- On the scale next to each statement, choose a rating that reflects how frequently it applies to you
- Total your scores after each domain and reflect on how you have scored yourself

DEMONSTRATING PERSONAL QUALITIES	A lot of the time	Some of the time	Very little / None of the time
Developing Self Awareness			
I reflect on how my own values and principles influence my behaviour and impact on others	○	○	○
I seek feedback from others on my strengths and limitations and modify my behaviour accordingly	○	○	○
Managing Yourself			
I remain calm and focused under pressure	○	○	○
I plan my workload and deliver on my commitments to consistently high standards demonstrating flexibility to service requirements	○	○	○
Continuing Personal Development			
I actively seek opportunities to learn and develop	○	○	○
I apply my learning to practical work	○	○	○
Acting with Integrity			
I act in an open, honest and inclusive manner - respecting other people's culture, beliefs and abilities	○	○	○
I speak out when I see that ethics or values are being compromised	○	○	○
TOTAL			

Total your scores and reflect on what you have given yourself. If you have mainly red and orange circles in any particular domain, these domains may be areas you wish to develop further. If you have green circles then check that these are not overplayed strengths. An overplayed strength could be a behaviour you over rely on and one which might impact negatively on your performance.

To work through the Leadership Development Module for this domain, go to www.leadershipacademy.nhs.uk/leadership-development-module/demonstrating-personal-qualities

2. Working with Others



Effective leadership requires individuals to work with others in teams and networks to deliver and improve services. To do so, they must demonstrate effectiveness in:

- **Developing networks** by working in partnership with patients, carers, service users and their representatives, and colleagues within and across systems to deliver and improve services
- **Building and maintaining relationships** by listening, supporting others, gaining trust and showing understanding
- **Encouraging contribution** by creating an environment where others have the opportunity to contribute
- **Working within teams** to deliver and improve services.

Look at statements below:

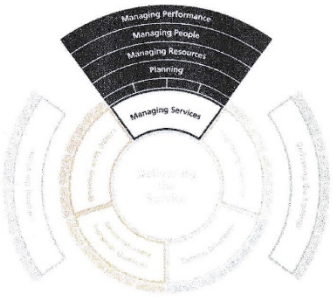
- On the scale next to each statement, choose a rating that reflects how frequently it applies to you
- Total your scores after each domain and reflect on how you have scored yourself

	A lot of the time	Some of the time	Very little / None of the time
WORKING WITH OTHERS			
Developing Networks			
I identify opportunities where working collaboratively with others will bring added value to patient care	○	○	○
I share information and resources across networks	○	○	○
Building and Maintaining Relationships			
I communicate clearly and effectively with others	○	○	○
I listen to and take into account the needs and feelings of others	○	○	○
Encouraging Contribution			
I actively seek contributions and views from others	○	○	○
I am comfortable managing conflicts of interests or differences of opinion	○	○	○
Working within Teams			
I put myself forward to lead teams, whilst always ensuring I involve the right people at the right time	○	○	○
I acknowledge and appreciate the efforts of others within the team and respect the team's decision	○	○	○
TOTAL			

Total your scores and reflect on what you have given yourself. If you have mainly red and orange circles in any particular domain, these domains may be areas you wish to develop further. If you have green circles then check that these are not overplayed strengths. An overplayed strength could be a behaviour you over rely on and one which might impact negatively on your performance.

To work through the Leadership Development Module for this domain, go to www.leadershipacademy.nhs.uk/leadership-development-module/working-with-others

3. Managing Services



Effective leadership requires individuals to focus on the success of the organisation(s) in which they work. To do so, they must be effective in:

- **Planning** by actively contributing to plans to achieve service goals
- **Managing resources** by knowing what resources are available and using their influence to ensure that resources are used efficiently and safely, and reflect the diversity of needs
- **Managing people** by providing direction, reviewing performance, motivating others, and promoting equality and diversity
- **Managing performance** by holding themselves and others accountable for service outcomes.

Look at statements below:

- On the scale next to each statement, choose a rating that reflects how frequently it applies to you
- Total your scores after each domain and reflect on how you have scored yourself

	 A lot of the time	 Some of the time	 Very little / None of the time
MANAGING SERVICES			
Planning			
I use feedback from patients, service users and colleagues when developing plans	○	○	○
I assess the available options in terms of benefits and risks	○	○	○
Managing Resources			
I deliver safe and effective services within the allocated resource	○	○	○
I take action when resources are not being used efficiently and effectively	○	○	○
Managing People			
I support team members in developing their roles and responsibilities	○	○	○
I provide others with clear purpose and direction	○	○	○
Managing Performance			
I analyse information from a range of sources about performance	○	○	○
I take action to improve performance	○	○	○
TOTAL			

Total your scores and reflect on what you have given yourself. If you have mainly red and orange circles in any particular domain, these domains may be areas you wish to develop further. If you have green circles then check that these are not overplayed strengths. An overplayed strength could be a behaviour you over rely on and one which might impact negatively on your performance.

To work through the Leadership Development Module for this domain, go to www.leadershipacademy.nhs.uk/leadership-development-module/managing-services

4. Improving Services

Effective leadership requires individuals to make a real difference to people's health by delivering high quality services and by developing improvements to services. To do so, they must demonstrate effective in:

- **Ensuring patient safety** by assessing and managing risk to patients associated with service developments, balancing economic consideration with the need for patient safety
- **Critically evaluating** by being able to think analytically, conceptually and to identify where services can be improved, working individually or as part of a team
- **Encouraging improvement and innovation** by creating a climate of continuous service improvement
- **Facilitating transformation** by actively contributing to change processes that lead to improving healthcare.

Look at statements below:

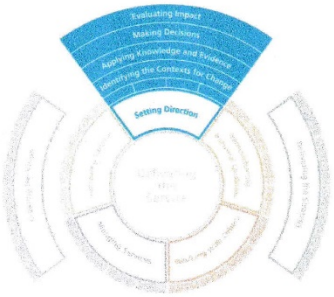
- On the scale next to each statement, choose a rating that reflects how frequently it applies to you
- Total your scores after each domain and reflect on how you have scored yourself

IMPROVING SERVICES	A lot of the time	Some of the time	Very little / None of the time
Ensuring Patient Safety			
I take action when I notice shortfalls in patient safety	○	○	○
I review practice to improve patient safety and minimise risk	○	○	○
Critically Evaluating			
I use feedback from patients, carers and service users to contribute to improvements in service delivery	○	○	○
I work with others to constructively evaluate our services	○	○	○
Encouraging Improvement and Innovation			
I put forward ideas to improve the quality of services	○	○	○
I encourage debate about new ideas with a wide range of people	○	○	○
Facilitating Transformation			
I articulate the need for change and its impact on people and services	○	○	○
I focus myself and motivate others to ensure change happens	○	○	○
TOTAL			

Total your scores and reflect on what you have given yourself. If you have mainly red and orange circles in any particular domain, these domains may be areas you wish to develop further. If you have green circles then check that these are not overplayed strengths. An overplayed strength could be a behaviour you over rely on and one which might impact negatively on your performance.

To work through the Leadership Development Module for this domain, go to www.leadershipacademy.nhs.uk/leadership-development-module/improving-services

5. Setting Direction



Effective leadership requires individuals to contribute to the strategy and aspirations of the organisation and act in a manner consistent with its values. To do so, they must demonstrate effective in:

- **Identifying the contexts for change** by being aware of the range of factors to be taken into account
- **Applying knowledge and evidence** by gathering information to produce an evidence-based challenge to systems and processes in order to identify opportunities for service improvements
- **Making decisions** using their values, and the evidence, to make good decisions
- **Evaluating impact** by measuring and evaluating outcomes, taking corrective action where necessary and by being held to account for their decisions.

Look at statements below:

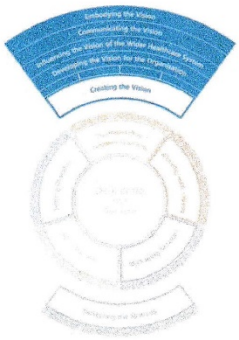
- On the scale next to each statement, choose a rating that reflects how frequently it applies to you
- Total your scores after each domain and reflect on how you have scored yourself

	A lot of the time	Some of the time	Very little / None of the time
SETTING DIRECTION			
Identifying the Contexts for Change			
I identify the drivers of change (e.g. political, social, technical, economic, organisational, professional environment)	○	○	○
I anticipate future challenges that will create the need for change and communicate these to others	○	○	○
Applying Knowledge and Evidence			
I use data and information to suggest improvements to services	○	○	○
I influence others to use knowledge and evidence to achieve best practice	○	○	○
Making Decisions			
I consult with key people and groups when making decisions taking into account the values and priorities of the service	○	○	○
I actively engage in formal and informal decision-making processes about the future of services	○	○	○
Evaluating Impact			
I take responsibility for embedding new approaches into working practices	○	○	○
I evaluate the impact of changes on patients and service delivery	○	○	○
TOTAL			

Total your scores and reflect on what you have given yourself. If you have mainly red and orange circles in any particular domain, these domains may be areas you wish to develop further. If you have green circles then check that these are not overplayed strengths. An overplayed strength could be a behaviour you over rely on and one which might impact negatively on your performance.

To work through the Leadership Development Module for this domain, go to www.leadershipacademy.nhs.uk/leadership-development-module/setting-direction

6. Creating the Vision



Effective leadership involves creating a compelling vision for the future, and communicating this within and across organisations. This requires individuals to demonstrate effectiveness in:

- **Developing the vision** of the organisation, looking to the future to determine the direction for the organisation
- **Influencing the vision of** the wider healthcare system by working with partners across organisations
- **Communicating the vision** and motivating others to work towards achieving it
- **Embodying the vision** by behaving in ways which are consistent with the vision and values of the organisation

Look at statements below:

- On the scale next to each statement, choose a rating that reflects how frequently it applies to you
- Total your scores after each domain and reflect on how you have scored yourself

CREATING THE VISION	 A lot of the time	 Some of the time	 Very little / None of the time
Developing the Vision for the Organisation			
I actively engage with others (including patients and public) to determine the direction of the organisation	○	○	○
I take into account the full range of factors that will impact upon the future of health and care services	○	○	○
Influencing the Vision of the Wider Healthcare System			
I look for opportunities to engage in debate about the future of healthcare	○	○	○
I influence key decision makers who determine future government policy that impacts the NHS and its services	○	○	○
Communicating the Vision			
I communicate the vision with enthusiasm and clarity	○	○	○
I take time to build critical support for the vision	○	○	○
Embodying the Vision			
I show confidence, commitment and passion for the vision in my day to day actions	○	○	○
I challenge behaviours, symbols & rituals which are not consistent with the vision	○	○	○
TOTAL			

Total your scores and reflect on what you have given yourself. If you have mainly red and orange circles in any particular domain, these domains may be areas you wish to develop further. If you have green circles then check that these are not overplayed strengths. An overplayed strength could be a behaviour you over rely on and one which might impact negatively on your performance.

To work through the Leadership Development Module for this domain, go to www.leadershipacademy.nhs.uk/leadership-development-module/creating-the-vision

7. Delivering the Strategy

Effective leadership involves delivering the strategy by developing and agreeing strategic plans that place patient care at the heart of the service, and ensuring that these are translated into achievable operational plans. This requires individuals to demonstrate effectiveness in:

- **Framing the strategy** by identifying strategic options for the organisation and drawing upon a wide range of information, knowledge and experience
- **Developing the strategy** by engaging with colleagues and key stakeholders
- **Implementing the strategy** by organising, managing and assuming the risks of the organisation
- **Embedding the strategy** by ensuring that strategic plans are achieved and sustained.

Look at statements below:

- On the scale next to each statement, choose a rating that reflects how frequently it applies to you
- Total your scores after each domain and reflect on how you have scored yourself

DELIVERING THE STRATEGY	A lot of the time	Some of the time	Very little / None of the time
Framing the Strategy			
I draw on relevant thinking and best practice to inform strategy development	○	○	○
I use an understanding of the history and culture of the organisation to create a realistic strategy	○	○	○
Developing the Strategy			
I engage with a wide range of stakeholders when formulating strategic plans	○	○	○
I mitigate uncertainties and risks associated with strategic choices	○	○	○
Implementing the Strategy			
I ensure strategic plans are translated into workable operational plans	○	○	○
I establish clear accountabilities for delivery of all elements of the strategy	○	○	○
Embedding the Strategy			
I help others to overcome obstacles and challenges in delivering the strategy	○	○	○
I monitor progress of the strategic outcomes and make adjustments where necessary	○	○	○
TOTAL			

Total your scores and reflect on what you have given yourself. If you have mainly red and orange circles in any particular domain, these domains may be areas you wish to develop further. If you have green circles then check that these are not overplayed strengths. An overplayed strength could be a behaviour you over rely on and one which might impact negatively on your performance.

To work through the Leadership Development Module for this domain, go to www.leadershipacademy.nhs.uk/leadership-development-module/delivering-the-strategy

Next Steps

Having completed your self assessment, we would encourage you to discuss your results with your Line Manager, mentor or trusted colleague.

You may find it helpful to ask your Line Manager or colleagues to also download the document and rate you against some or all of the leadership domains. Coming together and comparing their ratings with your self ratings can provide valuable insight into your leadership behaviour.

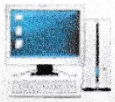
Next, you may wish to develop a personal action plan to help you consolidate your development areas. An action plan template is available on the next page.

Hints and tips on action planning

- Define your action plan in SMART terms (Specific, Measurable, Action oriented, Realistic and Time bound). This will help you reach your goals.
- Identify individuals you want to talk to about your action plan and who can help you make it happen.
- Assess potential obstacles and how you might be able to overcome these.
- Think about how you can utilise your strengths to help you reach your goals.
- Identify resources that are available to you or that you will need to obtain in order to achieve your goal e.g.what resources (internal, external) can you draw upon in order to reach your goal?
- Write action steps to help you reach your goal and assign a completion date to each one.
- Set a date to evaluate your progress towards your goal.

Resources

For suggested reading or development advice related to the each of the domains of the Leadership Framework, please refer to the Leadership Development Module at www.leadershipacademy.nhs.uk/leadership-development-module



IMPORTANT!

If you wish to refer back to this document at any point, please save a copy to your computer or print in the usual way. For confidentiality reasons, the information you have input will not be saved on this website.

Appendix D Demographic Questionnaire

Demographic Questions (Version 1, 03.07.2018)

Exploring clinical leadership skills within the Clinical Psychology career pathway

Researcher: Ana Ambrose
ERGO Study ID number: **41732**

Demographic information asked for in iSurvey:

Date of birth

Gender

Ethnic Origin

Job Title

If Assistant Psychologist (AP): how long have you been an AP?

If Trainee Clinical Psychologist: what year of training are you currently?

If Qualified Clinical Psychologist: how long have you been qualified?

If Other: please state your job title and how long you have been in this role.

Please state banding (pay band): Band 4-9

Describe your role (any speciality, experience as a supervisor and supervisee, consultation, nature of work).

Appendix E Example recruitment e-mail

E-mail invite for Programme Directors (Version 1, 03.07.2018)

Exploring clinical leadership skills within the Clinical Psychology career pathway

Researcher: Ana Ambrose
ERGO Study ID number: **41732**

Dear Programme Director/Clinical Director/Academic Director

My name is Ana Ambrose, I am a Trainee Clinical Psychologist currently undertaking my DClin Psych at the University of Southampton. I am writing to ask if you would be willing to circulate an e-mail to your current Trainee Clinical Psychologists to invite them to take part in my research study?

The project aims to explore participants' experience of clinical leadership skills within the Clinical Psychology career pathway. It will take approximately 30 minutes for participants to complete an online survey asking them questions regarding their clinical leadership experience within their role.

If you would be willing for your trainees to participate in this study, please let me know and forward them the e-mail below.

I am most grateful for your time.

Many thanks,

Ana Ambrose

Dear Trainee Clinical Psychologist

I am writing to invite you to take part in my research study exploring clinical leadership skills within the Clinical Psychology career pathway. Your input will be invaluable in helping to understand how clinical leadership skills feature in your current role and to consider how these skills develop over the career pathway supported by training.

Participation involves answering a number of questions related to clinical leadership via an online survey and it is estimated that this will take you a maximum of 30 minutes to complete.

At the end of the survey you will be offered the opportunity to be entered into a **prize draw** for **amazon vouchers (4 X £25 prizes available)**.

Your participation is completely voluntary, and I am most grateful for your valuable time and participation in this study.

Please follow this link to participate: *insert link*

Many thanks,

Ana Ambrose

Trainee Clinical Psychologist

Appendix F Participant Information Sheet

Participant Information Sheet (Version 1, 03.07.2018)

Exploring clinical leadership skills within the Clinical Psychology career pathway

Researcher: Ana Ambrose

ERGO Study ID number: **41732**

Please read this information carefully before deciding to take part in this research.

What is the research about?

This research aims to explore the clinical leadership experiences of Assistant Psychologists (AP's), Trainee Clinical Psychologists (TCP's) and Qualified Clinical Psychologists (QCP's) and to look at their training experience in terms of developing these skills.

In 2014 the British Psychological Society included 'organisational and systemic influence and leadership' as one of the nine core competencies and is now a requirement of the doctoral training programmes to include and assess these competencies.

This research aims to assess and explore whether these changes in the BPS requirements have impacted on AP's TCP's and QCP's experience of training in the area of clinical leadership and to explore how clinical leadership skills are developed through the career pathway.

Why have I been chosen?

You have been chosen for this research as you are either an Assistant Psychologist (or other pre-qualified role within the field of Psychology), a Trainee Clinical Psychologist or a Qualified Clinical Psychologist and your opinions on clinical leadership skills within your role are important to this research.

What will happen to me if I take part?

After consenting to participate in this study, you will be asked for brief demographic information (e.g. age, sex, role, number of years within role). This will take approximately 5 minutes to complete.

You will be asked to answer a number of multiple choice questions taken from the Leadership Framework Self-Assessment Tool (NHS Leadership Academy, 2012), which is a self-rated tool. This tool was developed by the NHS Leadership Academy to encourage healthcare clinicians to reflect on their leadership skills and identify areas in which they could develop further. It is estimated that this part will take approximately 15 minutes to complete.

You will then be asked a number of open ended questions related to clinical leadership skills within your current role and training and you will provide your answer in a free-text box. It is estimated that this part of the study will take you approximately 10 minutes to complete.

Are there any benefits in my taking part?

Your involvement in this study will be an opportunity to reflect on your own leadership skills within your role. It will also be an opportunity to add your experience in helping us to understand clinical leadership skills within your chosen career.

All participants will also have the opportunity at the end of the iSurvey to be entered into a prize draw for amazon vouchers (4 X £25 vouchers) in order to thank you for your participation.

Are there any risks involved?

There are no known risks to being involved in this research and the questions you will be asked are not considered by the researcher to be sensitive in nature.

Will my participation be confidential?

The research will comply with the Data Protection Act and the University of Southampton's guidance on ethics procedures. The information provided through your participation will be stored securely on a computer with password access and will be kept for 5 years following the project in accordance with the Data Protection Act (1998). Participants' data will be anonymised to protect individuals' identity (Data Protection Act, 1998).

If you chose to enter into the prize draw, you will be asked to enter your e-mail address. Your e-mail address will be stored separately from your questionnaire data at the point of the researcher's retrieving the data. Stored e-mail addresses will be deleted following the prize draw, which will take place once the iSurvey closes.

What happens if I change my mind?

Your involvement in this study is completely voluntary. If you change your mind and no longer wish to continue with the survey you can stop the survey at any point and your data will not be

used. However, once you submit your iSurvey at the end, it will no longer be possible to withdraw your data.

What happens if something goes wrong?

In the unlikely case of concern or complaint, you may contact:

Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email fshs-rso@soton.ac.uk

Where can I get more information?

You can contact the researchers Ana Ambrose (Trainee Clinical Psychologist) or Dr Margo Ononaiye (Deputy Clinical Director of the Doctorate in Clinical Psychology) at the University of Southampton if you have any further questions regarding this research.

E-mail: A.Ambrose@soton.ac.uk

M.S.Ononaiye@soton.ac.uk

Appendix G Debrief Statement

UNIVERSITY OF Southampton

Exploring clinical leadership skills within the Clinical Psychology career pathway

Debriefing Statement

(Version 2, 07.12.2018)

Researcher: Ana Ambrose
ERGO Study ID number: 41732

The aim of this research was to explore clinical leadership skills within the career pathway of Clinical Psychology and if and how these skills are being developed through the doctoral training programmes. Your data will help with our exploration of this. Once again, results of this study will not include your name or any other identifying characteristics. The research did not use deception. You may request a copy of the research findings once the project is complete.

If you were interested in using a self-assessment tool in a more developmental way for your own benefit, you may be interested in utilising the updated tool developed by the NHS Leadership Academy based on the Healthcare Leadership Model (NHS Leadership Academy, 2013). You can find information regarding the Healthcare Leadership Model and self-assessment tool by following this link: https://www.leadershipacademy.nhs.uk/resources/healthcare-leadership-model/

If you have any further questions please contact me, Ana Ambrose, at the University of Southampton A.Ambrose@soton.ac.uk

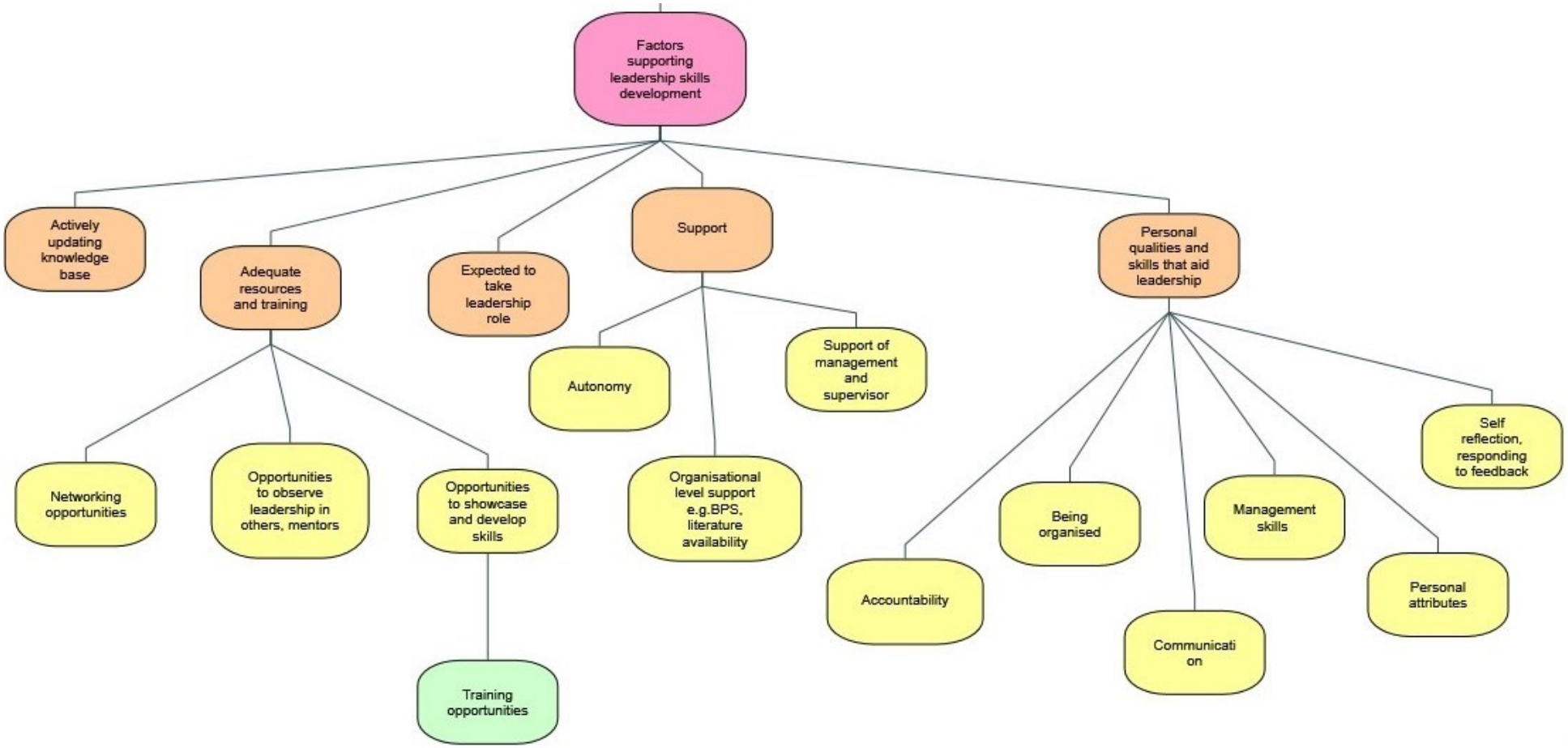
Thank you for your participation in this research.

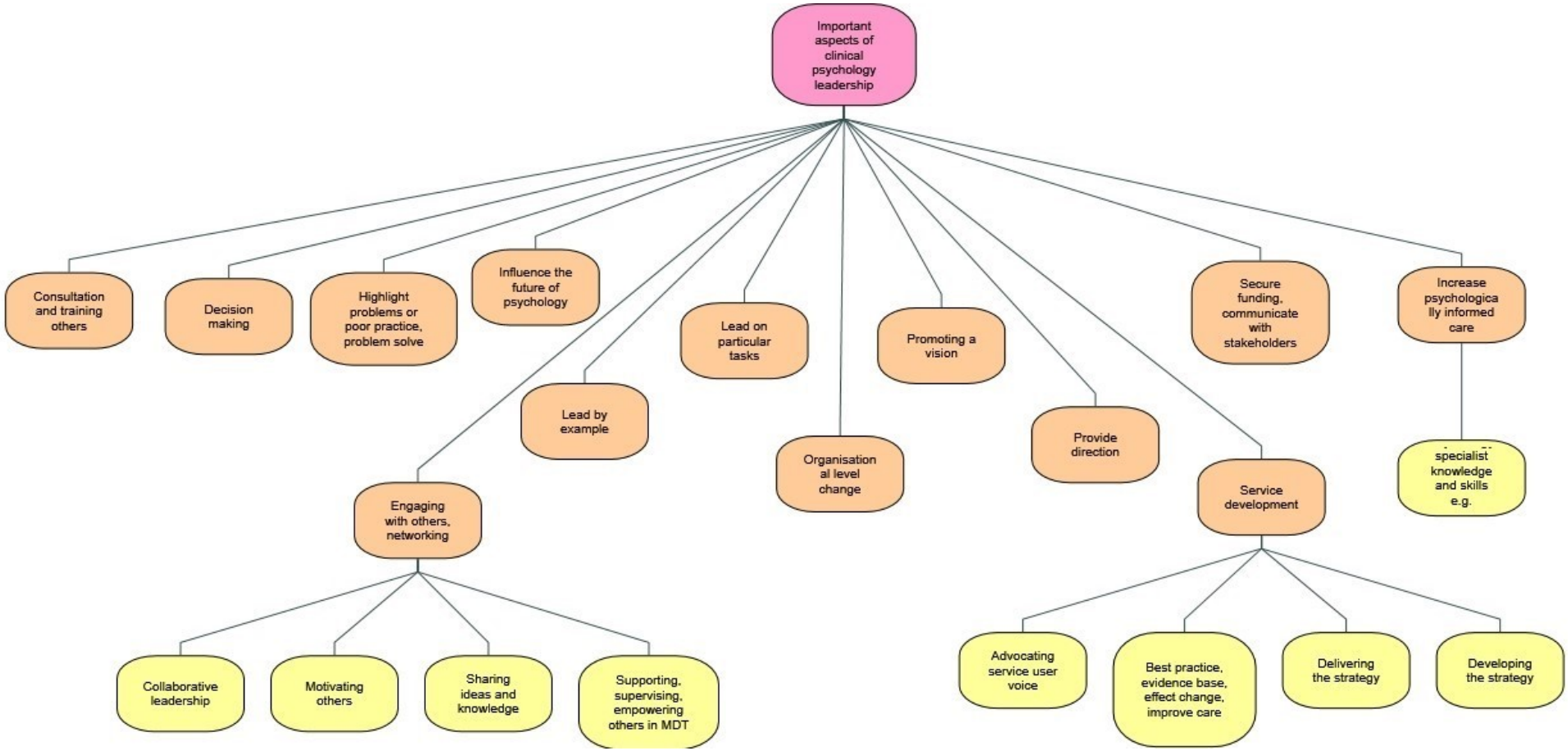
Signature _____ Date _____

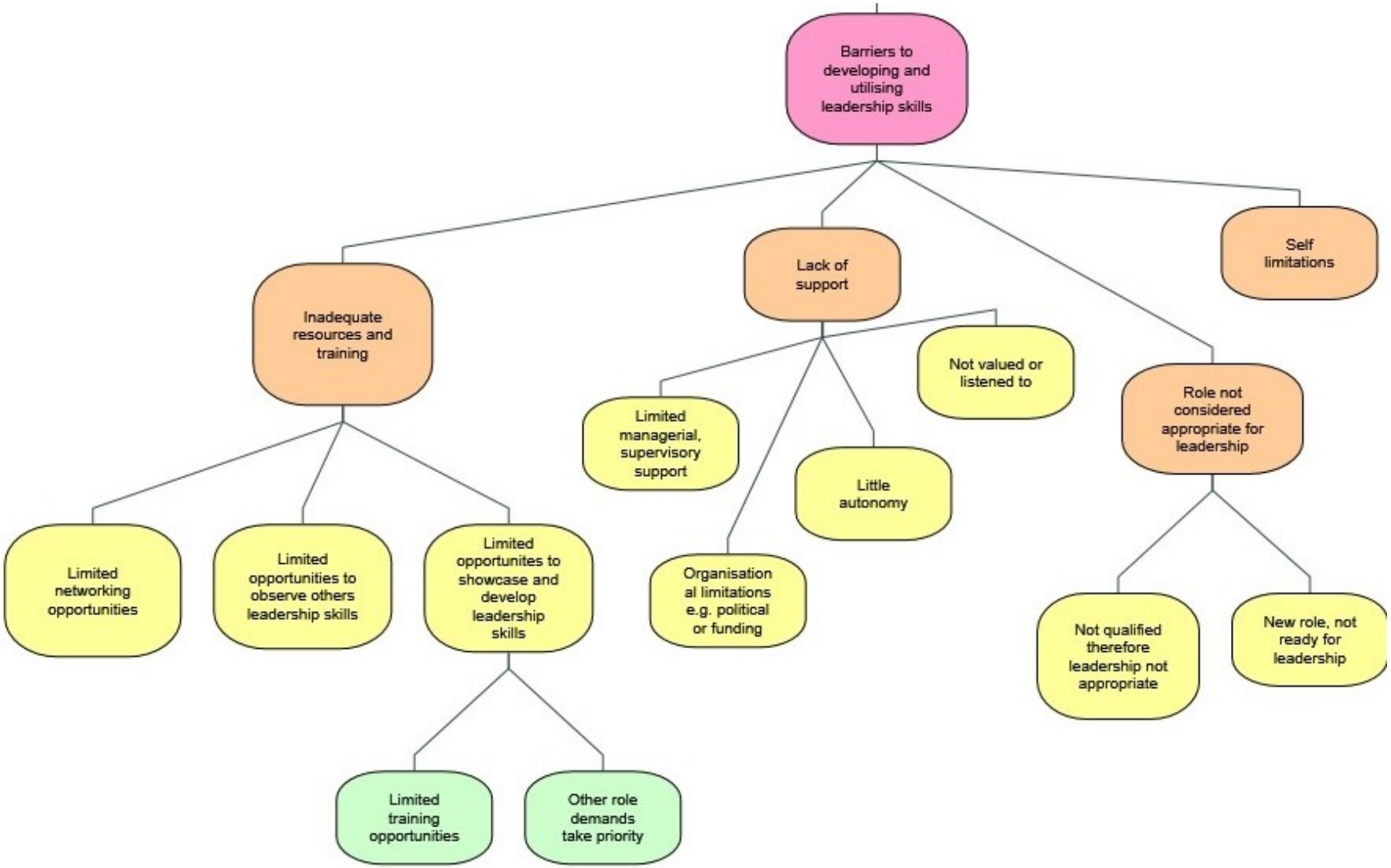
Name

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email fshs-rso@soton.ac.uk

Appendix H Mind Maps of Themes (full version)




Important aspects of clinical psychology leadership
Consultation and training others
Decision making
Highlight problems or poor practice, problem solve
Influence the future of psychology
Lead by example
Lead on particular tasks
Organisation al level change
Promoting a vision
Provide direction
Secure funding, communicate with stakeholders
Increase psychologica lly informed care
specialist knowledge and skills e.g.
Engaging with others, networking
Collaborative leadership
Motivating others
Sharing ideas and knowledge
Supporting, supervising, empowering others in MDT
Service development
Advocating service user voice
Best practice, evidence base, effect change, improve care
Delivering the strategy
Developing the strategy


Barriers to developing and utilising leadership skills
Inadequate resources and training
Lack of support
Self limitations
Limited networking opportunities
Limited opportunities to observe others leadership skills
Limited opportunites to showcase and develop leadership skills
Limited managerial, supervisory support
Not valued or listened to
Little autonomy
Organisation al limitations e.g. political or funding
Role not considered appropriate for leadership
Not qualified therefore leadership not appropriate
New role, not ready for leadership
Limited training opportunities
Other role demands take priority