Associations between trait emotional intelligence and clinical leadership behaviour among trainee and clinical psychologists.

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**Abstract**

**Objectives.** Clinical leadership is now defined as a core professional competency for all clinical psychologists and emotional intelligence is important for all effective leadership. This study examines the association between trait emotional intelligence and clinical leadership behaviours among trainee, practising and consultant clinical psychologists, to understand how leadership changes through the career of the psychologist.

**Methods.** Using a cross-sectional design, 409 participants completed the short-form of the Trait Emotional Intelligence Questionnaire (TEIQue-SF) and one of three versions of the Clinical Leadership Behaviour Scales (CLBS) derived from the CPLDF.

**Results.** A significant positive correlation was found between trait emotional intelligence and clinical leadership in all participant groups, which remained significant after controlling for clinical experience. Exploratory factor analysis supported the validity of the CLBS. All scales and subscales showed adequate reliability.

**Conclusions.** This study shows that trait emotional intelligence is important in the demonstration of clinical leadership behaviours at different career stages. It is important that training programmes should be developing leadership competences during professional training.

**Introduction**

Clinical leadership is the process of driving service improvement and innovation through effective leadership in teams with the purpose of delivering excellence for people who use clinical services (Howieson & Thiagarajah, 2011). Since the introduction of clinical governance in the late 1990s, its importance in the NHS has grown (Department of Health, 1997; Scally & Donaldson, 1998). An increasingly large, autonomous and accountable NHS workforce has become a feature of UK government health and social care policy in recent decades (Department of Health, 1999, 2008, 2010). This is reflected in the way the NHS has developed its clinical leadership strategy.

The NHS Leadership Qualities Framework (NHS Institute for Innovation and Improvement, 2006) was introduced as guidance for leaders and managers to become agents of effective organisational change. This framework was superseded by the Clinical Leadership Competency Framework (CLCF) in 2011 (Long et al., 2011). This spread clinical leadership across all NHS clinical professionals and is being integrated into the regulatory practise of registered professionals across clinical disciplines, including clinical psychology (Division of Clinical Psychology [DCP], 2010).

There are a wide range of skills required for effective leadership within health and social care, and each healthcare profession will focus on different qualities and skills. Within the profession of clinical psychology The Clinical Psychology Leadership Development Framework (CPLDF; DCP, 2010) outlines a set of personal qualities, values, skills and knowledge that are required for effective clinical leadership emotional intelligence is just one of these qualities. Emotional intelligence refers to individual differences in the perception, understanding, regulation and expression of emotions in the self and others (Salovey & Mayer, 1990). Other professional clinical groups have identified the potential utility of emotional intelligence in the demonstration of leadership in clinical settings (Rao, 2006; Stewart, 2007; Triola, 2007). A recent review of emotional intelligence and clinical leadership found that four of the five domains of the CLCF could be enhanced through emotional intelligence. The CLCF domains also map onto the clinical leadership behavioural outcomes described in the CPLDF (DCP, 2010). These behavioural outcomes are categorised by the DCP as either *clinical*, *professional* or *strategic* leadership behaviours and purported to be both cumulative and incremental as a clinician progresses through four main career stages (*post-graduate doctoral trainee*; *practising clinical psychologist*; *consultant clinical psychologist*; *clinical director*). This framework is yet to be empirically validated, however, its close links with the empirically developed CLCF suggest that emotional intelligence could be associated with clinical leadership behaviour within the clinical psychology profession.

Existing research into emotional intelligence amongst clinical professionals has been criticised for a lack of theoretical cohesion around how it is conceptualised (Arora et al., 2010). There are at least four major models of emotional intelligence in the wider literature, each is significantly different (see Cherniss, 2010). Although commonalities do exist between all of these models, they can be separated into two distinct groups defined through their measurement: ability emotional intelligence and trait emotional intelligence (Petrides & Furnham, 2001). The construct of ability emotional intelligence presumes the hypothetical existence of an ideal emotional intelligence score that people can be measured against using maximum performance testing (Mayer & Salovey, 1997; Cherniss, 2010; Mayer, Salovey, & Caruso, 2002; Petrides, 2011). Ability measures of emotional intelligence have good content validity but they have been criticised for their complicated administrative and scoring procedures (Cherniss, 2010).

In contrast, trait emotional intelligence is defined by fifteen emotion-related personality facets which were identified through a content analysis of earlier emotional intelligence models (Petrides, Pita & Kokkinaki, 2007). These facets are: *adaptability, assertiveness, emotion expression, emotion management (others), emotion perception (self and others), emotion regulation, low impulsiveness, relationships, self-esteem, self-motivation, social awareness, stress management, trait empathy, trait happiness* and *trait optimism.* This definition conceptualises emotional intelligence as a distinct personality construct that is related to other common personality traits such as neuroticism, extraversion, agreeableness, conscientiousness and openness (De Raad, 2005; Petrides et al., 2007). Trait emotional intelligence is measured using the trait emotional intelligence questionnaire (TEIQue; Petrides, 2009), a self-report measure of emotional self-efficacy. This method of measurement allows for a subjective interpretation of affect-laden information and is susceptible to faking (Day & Carroll, 2008). In order to complete it the measure requires participants to have high levels of self-awareness. Its psychometric properties are however, generally considered to be superior to ability measures of emotional intelligence (Cherniss, 2010; Cooper & Petrides, 2010; Gardner & Qualter, 2010). The TEIQue has also been recommended for future research into the emotional intelligence of clinical professionals (Arora et al., 2010).

There are a number of theoretical differences in emotional intelligence and the varied measures have been found to poorly correlate (Brannick et al., 2009). Previous researchers into emotional intelligence and clinical leadership have often selected measures that are incongruent with their cited theoretical model (Duygulu, Hicdurmaz & Akyar, 2011; Parker & Sorensen, 2008) making their application to practise much more challenging. Despite these limitations, there has been found a positive relationship between the construct of emotional intelligence, when broadly defined, and leadership across a range of clinical professionals (Akerjordet & Severinsson, 2010; Benson, Martin, Ploeg & Wessel, 2012; Jenson et al., 2008). This relationship has a shared effect with the process of undergoing initial professional training (Larin et al., 2011). However, the impact of clinical experience at more senior career levels is unclear. Neither clinical psychologists nor trainee clinical psychologists seem to have been represented within the published literature on leadership.

Much of the leadership research has focused on leadership and management in clinical settings rather than looking at the potential clinical leadership behaviour of front line clinicians (Benson et al., 2012; Moss, Ritossa & Ngu, 2006, Parker & Sorensen, 2008, Taylor, Taylor & Stoller, 2008). As professional bodies increasingly require leadership skills in their practitioners it is important to understand the different levels at which clinical psychologists might use leadership skills to affect change (Department of Health, 2010; DCP, 2007; 2010; Long et al., 2011).

The existing evidence base is limited in that it lacks theoretical cohesion around the concept of emotional intelligence and how it is measured, its application has not been applied to the profession of clinical psychology or its trainees, there is also a lack of empirical data about the detail of the relationship between emotional intelligence and clinical leadership behaviour. The aim of this study is to examine the relationship between emotional intelligence and clinical leadership among post-graduate doctoral trainee clinical psychologists, practising clinical psychologists and consultant clinical psychologists using a trait model of emotional intelligence (Petrides et al., 2007). It also aims to examine the empirical validity of the CPLDF as a reliable indicator of clinical leadership behaviours.

**2.2 Method**

A cross sectional design was adopted in this study.

***2.2.1 Pilot study and power analysis***

A pilot study was carried out with six post-graduate trainee clinical psychologists and six clinical psychologists in an academic setting (*N =* 12) in order to identify the minimum number of participants required to demonstrate statistical power. All 12 participants completed the trait emotional intelligence questionnaire (short form) (TEIQue-SF) (Cooper & Petrides, 2010). They then completed an adapted version of the Stage of Change Questionnaire (SOC; McConnaughy, Procheska & Velicer, 1983). It was hypothesised that participants with higher TEIQue-SF scores would self-report a higher readiness to demonstrate clinical leadership. This hypothesis was supported with a medium effect size of *r =* .476between the two variables. To achieve a power of .8 at *α* = .05 with a positive directional hypothesis using Pearson’s *r*, 37 participants were estimated for each group in the present study (Clark-Carter, 2010). 111 participants were needed to demonstrate significance.

***2.2.2 Participants***

A mixed sample of 234 post-graduate doctoral trainee clinical psychologists and 175 qualified clinical psychologists (119 practising psychologists and 56 consultants) were recruited through national professional email distribution lists and by advertising the research on a *members only* section of the DCP website. The majority of participants were women (80.7%), 73 were men (17.8%) and six did not state their gender. The mean age was 28.9 years (*SD* = 4.36, range 22-48) for trainees, 35.5 years (*SD* = 6.13, range 27-64) for practising and 49.2 years (*SD* = 7.30, range 35-66) for consultant clinical psychologists. Most trainee clinical psychologists were in their third and final year of training (*n* = 107, 45.7%), with 70 (29.9%) in their second year and 57 (24.4%) in their first year.

Most clinical psychologists were working in Adult Mental Health (26.9%), followed by Child and Adolescent Mental Health (26.9%), Learning Disability (13.1%) and Older Adult Mental Health settings (8.9%). The remaining clinical psychologists worked in other health and social care environments with nine participants not disclosing their main area of clinical work. Geographical locations were unknown for all participants. In terms of age, gender and speciality worked, the sample represented the demographic of clinical psychologists working across the UK (British Psychological Society, 2007; NHS Education for Scotland, 2012). The trainee clinical psychologist sample was over-represented by final year post-graduate doctoral students.

***2.2.3 Measures***

*2.2.3.1 Trait Emotional Intelligence Questionnaire – Short Form (TEIQue-SF: Cooper & Petrides, 2010).*

The TEIQue-SF is a 30-item self-report questionnaire designed to measure trait emotional intelligence. It uses a Likert scale ranging from *1 (Completely Disagree)* to *7 (Completely Agree)* to yield a single score of global trait emotional intelligence, which is calculated by using a mean total score. The short-form contains two items from each of the 15 emotional intelligence facets measured by the full-form TEIQue (Petrides, 2009). Items for the TEIQue-SF were selected primarily by how well they correlated with total facet scores on the TEIQue. The TEIQue has been extensively used in research across a variety of settings with a number of diverse populations (Ali, Amorim, & Chamorro-Premuzic, 2009; Burri, Cherkas & Spector, 2011; Johnson, Batey & Holdsworth, 2009). The TEIQue-SF also has good psychometric properties in its own right (Cooper & Petrides, 2010; Petrides & Furnham, 2006). Normative data for the TEIQue-SF is reported separately for men and women due to significant gender differences (Petrides & Furnham, 2006). However, the present study found no gender differences (*t* (401) = 0.367, *p* = .714, *r* = .02) so this convention was not followed. The TEIQue-SF demonstrated adequate reliability in the present study with a Chronbach’s *α* = .86.

*2.2.3.2 Clinical Leadership Behaviour Scales (CLBS)*

To examine the validity of the CPLDF (DCP, 2010), separate scales were developed for three of the career stages defined in the CPLDF (*post-graduate doctoral trainee*; *practicing*; *consultant*). Descriptions of leadership behaviours were taken from the CPLDF and converted into self-report statements (e.g., *I take a leading role in MDT meetings regarding the psychological formulation of a client’s care*; *I supervise other professionals looking to use or adopt psychological ways of working*). Each item is rated on a seven-point Likert scale ranging from *1 (Never)* to *7 (Always)* indicating the frequency that an individual demonstrates the behaviours described in the statement*.* Totals represent a quantitative estimate of a person’s self-perception of their clinical leadership activity.

***2.2.4 Procedure***

Participants completed the questionnaires using internet-based survey software. Participants were presented with written information regarding the aims and background of the study as part of gaining informed consent. All participants completed the TEIQue-SF and were then directed to the appropriate version of the CLBS depending on their career stage. Post-graduate trainee clinical psychologists were directed to the CLBS-T, practising clinical psychologists to the CLBS-P and consultant clinical psychologists to the CLBS-C. All survey responses were anonymous. Anonymity was compromised for participants (*n=3)* who emailed the researcher for further information about the study but their individual responses remained unidentifiable.

***2.2.5 Data analysis***

All data analysis was carried out using SPSS Statistics Version 18. Scales were screened for sensible values, missing data and normality (Clark-Carter, 2010). Data were grouped into three samples according to career grade (234 post-graduate doctoral trainee, 119 basic grade and 56 consultant grade clinical psychologists). Exploratory factor analysis was planned for the three versions of the CLBS so preliminary analyses were carried out to ensure the appropriateness of the samples for factor analysis (Tabachnick & Fidell, 2001). Exploratory factor analysis was carried out using principal axis factoring (PAF). Due to the expectation that factors would be related, an oblique rotation was employed for solutions containing more than one factor (Kline, 1994). Subscales were computed and reliability analysis completed for all measures. Correlations between TEIQue-SF, CLBS scores, age and clinical experience were all calculated using Pearson’s product moment correlation coefficients. Partial correlations were also computed, controlling for age and clinical experience.

**2.3 Results**

***2.3.1 Preliminary analyses***

*2.3.1.1 Sample size*

The samples used for each of the scales satisfied the minimum ratio criteria of having twice as many participants as variables to complete a factor analysis (Kline, 1994). With the exception of the CLBS-C, the scales also satisfied more stringent criteria of having between 5 and 10 participants per variable (Kass & Tinsley, 1979).

*2.3.1.2 Normality and linearity of variables*

Due to the large sample sizes, normality was assessed through visual examination of histograms (Field, 2009) and considering absolute values of skewness and kurtosis against the range of values given by Curran, West and Finch (1996) to indicate sufficient univariate normality. The data was normally distributed. CLBS-C scores contained one significant univariate outlier (z-score > 3.29), which threatened normal assumptions. The outlier was retained (Tabachnick & Fidell, 2001) and sensitivity analysis was undertaken for correlations using the CLBS-C to monitor the impact of the outlier on the results.

*2.3.1.3 Multicollinearity, singularity and sampling adequacy*

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .78 for the CLBS-T, .85 for the CLBS-P and .81 for the CLBS-C, indicating good sampling adequacy. KMO values for the individual items on the three scales were all > .68, which is well above the accepted minimum limit of .5 (Field, 2009). Bartlett’s test of sphericity indicated that correlations between items were sufficiently large on all three scales to carry out a factor analysis (*χ2* (45) = 677.65, *p* < 0.001 for the CLBS-T; *χ2* (36) = 403.46, *p* < 0.001 for the CLBS-P; *χ2* (78) = 427.89, *p* < 0.001 for the CLBS-C) and the determinants of the correlation matrices all exceeded 0.001, which is larger than the necessary value of 0.00001. This indicated good preconditions for factor analysis (Field, 2009).

***2.3.2 Factor analysis***

Exploratory factor analysis was selected to analyse emergent factors from the questionnaires. Factors were extracted by inspection of the scree plots and eigenvalues for each scale (Field, 2009). Table 1 shows the initial eigenvalues and percentage of accounted variance for the first five factors for each of the scales using PAF. Applying Kaiser’s (1960) criteria of retaining factors with eigenvalues > 1 gave three-factor solutions for the CLBS-T and CLBS-C and a two-factor solution for the CLBS-P. However, the resulting communalities after extraction were less than 0.7 for items on all three scales, weakening the appropriateness of Kaiser’s criteria (Field, 2009). A scree plot gives a visual representation of which factors explain most of the variability within the data. They put the factors in descending order making it possible to see the influence of each of the factors on the data set. Scree plots for all three scales supported one-factor and three-factor solutions and so both were considered in the final analysis. One, two and three-factor solutions were considered for the CLBS-P.

**Table 1.** Eigenvalues and percentage of variance explained by factors for the Clinical Leadership Behaviour Scales

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | CLBS | Factor | Eigenvalue | % Variance explained |  |
|  | Trainee Version  (CLBS-T) | I | 3.703 | 37.032 |  |
|  | II | 1.253 | 12.527 |  |
|  | III | 1.154 | 11.535 |  |
|  | IV | .864 | 8.637 |  |
|  | V | .753 | 7.535 |  |
|  | Practising Version  (CLBS-P) | I | 4.246 | 47.175 |  |
|  | II | 1.198 | 13.308 |  |
|  | III | .873 | 9.702 |  |
|  | IV | .611 | 6.793 |  |
|  | V | .547 | 6.076 |  |
|  | Consultant Version  (CLBS-C) | I | 6.295 | 48.420 |  |
|  | II | 1.679 | 12.913 |  |
|  | III | 1.109 | 8.529 |  |
|  | IV | .815 | 6.273 |  |
|  | V | .686 | 5.277 |  |

*2.3.2.1 Factors and factor loadings*

Factor loadings are the correlations of a variable or item with a factor (Kline, 1994). Factor loadings greater than 0.3 was used for item inclusion within a factor. Since factors are themselves operationally defined by their factor loadings the content of the CLBS items were used to interpret factors (Kline, 1994).

*2.3.2.2 CLBS-T*

Two of the factor loadings of the one-factor PAF solution for the CLBS-T exceeded 0.3 and the remaining factor loadings exceeded 0.4, suggesting the presence of a single underlying clinical leadership factor. The total scale demonstrated good reliability with an internal consistency of Cronbach’s *α* = .81 and all corrected if item deleted-total correlations > 0.3. Table 2 shows the factor loadings of the three-factor PAF solution with oblique rotation (direct oblimin). The structure matrix indicated the same underlying factors. Correlations between the factors were all > 0.3 confirming the need for oblique rotation. The first factor was interpreted as *clinical leadership,* the second as *strategic leadership* and the third as *professional leadership*. These factors were congruent with the leadership domains of the CPLDF (DCP, 2010).

**Table 2.** Three-factor PAF solution with direct oblimin rotation of the CLBS-T (*N* = 234)

|  |  |  |  |
| --- | --- | --- | --- |
| CLBS-T | Rotated factor loadings | | |
| Individual items | I | II | III |
| I take a leading role in MDT meetings regarding the psychological formulation of a client’s care. | **.855** | .019 | -.009 |
| I take the lead in educating other professionals about the roles, skills and application of Clinical Psychology. | **.659** | -.021 | .118 |
| I provide supervision or consultation on single cases to professionals from disciplines other than psychology. | **.577** | -.017 | .069 |
| I take the lead on psychological care planning for a client. | **.536** | -.071 | -.074 |
| I market/promote research or small-scale service improvement projects to other professionals. | -.010 | **-.975** | .026 |
| I take the lead on small-scale service improvement projects | .114 | **-.667** | .030 |
| I reflect on team dynamics in supervision | .030 | .089 | **.832** |
| I develop and maintain effective working relationships with other team members. | -.073 | -.074 | **.469** |
| I use supervision to explore ways to facilitate access to psychological services. | .063 | -.154 | **.442** |
| I self-monitor my clinical practise including my values and well-being. | .178 | .066 | **.350** |
| Chronbach’s *α* | .76 | .83 | .62 |

*Note:* Factor loadings above .30 appear in bold.

*2.3.2.3 CLBS-P*

The ratio between the first and second eigenvalue was 3.544 and all of the factor loadings of the one-factor PAF solution for the CLBS-P exceeded 0.4 suggesting the appropriateness of a single underlying leadership factor (Morizot, Ainsworth & Reise, 2007). Using the total scale demonstrated good reliability with an internal consistency of Cronbach’s *α* = .86 and all corrected if item deleted-total correlations > 0.3. A two-factor PAF solution with oblique rotation (direct oblimin) did not result in a simple structure with two items having very similar factor loadings to both factors. A three-factor PAF solution with oblique rotation (direct oblimin) showed greater stability, achieving a simple structure (See Table 3) with both the factor and structure matrices indicating the same three factors. Correlations between the factors were all > 0.4 supporting oblique rotation. Factor interpretation was again congruent with the CPLDF with factor one representing *strategic leadership*, factor two representing *clinical leadership* and factor three representing *professional leadership*.

**Table 3.** Three-factor PAF solution with direct oblimin rotation of the CLBS-P (*N* = 119)

|  |  |  |  |
| --- | --- | --- | --- |
| CLBS-P | Rotated factor loadings | | |
| Individual items | I | II | III |
| I take a lead on clinical audit work to improve services or standards. | **.854** | -.084 | .007 |
| I take a lead on the use of outcome measures in my team. | **.647** | .064 | .003 |
| I take a lead on quality improvement service development projects. | **.627** | .027 | .209 |
| I market or promote effective service changes | **.497** | .268 | .047 |
| I advise others on how psychological theory can be integrated into care plans. | .107 | **.820** | -.114 |
| I lead on psychological formulation in my team. | .104 | **.712** | .051 |
| I enhance the credibility of psychology in teams through engagement, conflict-management and sharing stories of effective working. | -.127 | **.524** | .224 |
| I supervise other professionals looking to use or adopt psychological ways of working. | .116 | .080 | **.674** |
| I mentor and develop leadership skills in Trainee Clinical Psychologists. | .053 | -.013 | **.667** |
| Chronbach’s *α* | .82 | .77 | .70 |

*Note:* Factor loadings above .30 appear in bold.

*2.3.2.4 CLBS-C*

Again a single-factor PAF solution for the CLBS-C showed factor-loadings > 0.5 with the total scale demonstrating excellent reliability (Chronbach’s *α* =.90 and all corrected if item deleted-total correlations > 0.3). The ratio between the first and second eigenvalue (see Table 1) was 3.749 indicating the suitability of a single dominant leadership factor for this scale. A three-factor PAF solution with oblique rotation (direct oblimin) showed a simple structure (See Table 4) when setting the factor-loading limit at 0.45 with both the factor and structure matrices indicating the same three factors. However, lowering the factor-loading limit to a conventional .3 resulted in five of the individual items loading onto more than one factor. The factor correlation matrix contained correlations > 0.3. The interpretation of factors was again in line with the CPLDF categories although a number of individual items did not appear in the factors expected from the CPLDF. Factor one was interpreted as *strategic leadership*, factor two as *clinical leadership* and factor three as *professional leadership.* A single factor solution was considered a more stable factor representation for the CLBS-C despite a three-factor solution demonstrating some validity.

**Table 4.** Three-factor PAF solution with direct oblimin rotation of the CLBS-C (*N* = 56)

|  |  |  |  |
| --- | --- | --- | --- |
| CLBS-C | Rotated factor loadings | | |
| Individual items | I | II | III |
| I market and promote Clinical Psychology services or departments. | **.877** | -.082 | -.017 |
| I inspire, support and manage others to develop a culture of innovative clinical practice in my service. | **.829** | .239 | .108 |
| I contribute toward the development of leadership within the profession of Clinical Psychology. | **.617** | .006 | -.050 |
| I insure that organisational awareness informs all aspects of my work. | **.576** | *.324* | -.008 |
| I ensure that the quality and value for money of Clinical Psychology is enhanced and communicated to heads of service, directors and commissioners. | **.544** | .087 | *-.308* |
| I market/promote research or small-scale service improvement projects to other professionals. | **.428** | -.298 | *-.360* |
| I ensure psychological formulation work is appropriately shared in teams | .090 | **.831** | -.074 |
| I ensure that an educated and systematic approach to clinical risk and quality is embedded in teams. | .204 | **.626** | -.155 |
| I contribute toward the setting of quality targets in line with current legislation and clinical frameworks. | .068 | **.494** | *-.376* |
| I ensure outcomes for Clinical Psychology and benchmarks are collated. | -.157 | .271 | **-.801** |
| I inform and participate in clinical governance groups within my employing organisation. | .056 | .042 | **-.799** |
| I regularly feedback trends in quality outcomes to service directors. | .218 | .026 | **-.559** |
| I take the lead on sharing cost-saving service development projects with other services. | **.403** | -.165 | **-.502** |
| Chronbach’s *α* | .85 | .81 | .84 |

*Note:* Factor loadings above .30 appear in italics and above .40 in bold

***2.3.3 Descriptive statistics and correlations***

The mean global trait emotional intelligence score for the entire sample was 5.63 (*SD* = 0.50, range = 3.80-7). Trait emotional intelligence scores increased slightly at each sequential clinical psychology career stage (*M* = 5.58, *SD* = 0.50, for trainees; *M* = 5.65, *SD* = 0.50 for practising clinical psychologists; *M* = 5.76, *SD* = 0.46, for consultant clinical psychologists) although these differences were not significant (*F* (2, 406) = 2.834, *p* = .06, *ω2* = .0088). The entire sample (*n* = 409) had a higher base rate of trait emotional intelligence (*M* = 5.63, *SD* = 0.50) than described in a normative sample of 844 highly educated individuals (*M =* 5.05, *SD* = 0.69 for men and *M* = 4.94, *SD* = 0.67 for women; Cooper & Petrides, 2010).

Significant associations were found between total CLBS scores and TEIQue-SF scores in all three groups with effect sizes all exceeding Cohen’s (1988) criteria of a medium effect size (*r =* .325 for the trainee group, *r =* .305 for the practising group, and *r =* .323 for the consultant group).Combining these effect sizes using Fisher’s Z-transformations and weighting them by number of participants showed an overall effect size of *r =* .319 (See Appendix IV). Trait emotional intelligence correlated positively with clinical experience (*r* = .142, *p* < .01) for the entire sample (*N =* 409) although the effect disappeared when age was controlled for (*rec.a* = .062). Correlations between the three versions of CLBS subscales with TEIQue-SF scores, age and clinical experience are shown in Table 5. After controlling for age, only the trainee group showed an association between clinical experience and CLBS scores (*rcl.a* = .297, *p* < .01). Correlations remained significant between TEIQue-SF scores and CLBS scores in each of the groups when clinical experience was controlled for (*rel.c =* .351, *p* < .01 for the trainee group, *rel.c =* .290, *p* < .01 for the practising group, and *rel.c =* .388, *p* < .01 for the consultant group) with the combined effect size increasing to *r* = .339.

**Table 5.** Pearson’s correlations between emotional intelligence, age, clinical experience and clinical leadership behaviour

|  |  |  |  |
| --- | --- | --- | --- |
|  | TEIQue-SF | Age | Clinical Experience |
| *Post-graduate trainees* |  |  |  |
| TEIQue-SF |  | -.058 | -.033 |
| CLBS Total score | .325\*\* | .028 | .296\*\* |
| CLBS Clinical subscale | .254\*\* | .082 | .369\*\* |
| CLBS Professional subscale | .357\*\* | -.015 | .185\* |
| CLBS Strategic subscale | .143\* | -.025 | .083 |
| *Practising clinical psychologists* |  |  |  |
| TEIQue-SF |  | .155\* | .109 |
| CLBS Total score | .305\*\* | .218\*\* | .224\*\* |
| CLBS Clinical subscale | .225\*\* | .140 | .149 |
| CLBS Professional subscale | .290\*\* | .278\*\* | .340\*\* |
| CLBS Strategic subscale | .249\*\* | .151 | .119 |
| *Consultant clinical psychologists* |  |  |  |
| TEIQue-SF |  | .198 | .187 |
| CLBS Total score | .323\* | -.272\* | -.250 |
| CLBS Clinical subscale | .360\*\* | -.096 | -.037 |
| CLBS Professional subscale | .425\*\* | -.151 | -.142 |
| CLBS Strategic subscale | .109 | -.378\*\* | -.370\*\* |

*Note:* \* *p* < 0.05, \*\* *p* < 0.01,

A sensitivity analysis was conducted to observe the impact of the consultant group univariate outlier (z-score < 3.29). Removal of the outlier increased the correlation coefficients for the TEIQue-SF with all CLBS subscales. The CLBS total score correlated at *r* = .509, *p* < .01, with the TEIQue, which increased further when clinical experience was controlled for (*rel.c =* .556, *p* < .01). Differences between correlation coefficients of TEIQue-SF and CLBS scores were compared across groups following a Fisher’s Z-transformation (See Appendix IV). No significant differences were found either before or after sensitivity analysis.

**2.4 Discussion**

This study found a positive association between the two variables in both the trainee clinical psychologist group and the two qualified clinical psychologist groups, which was maintained after controlling for clinical experience. This is consistent with emotional-social intelligence research (See Bar-On, 2006) into the leadership of healthcare professionals in clinical settings (Duygulu et al., 2011; Jensen et al., 2008; Parker & Sorensen, 2008). In the current research, the association was slightly stronger for consultant clinical psychologists than for practising clinical psychologists and trainee clinical psychologists but the results were not robust.

The primary aim of the present study was to examine the association between clinical leadership behaviour and trait emotional intelligence across the career spectrum of the clinical psychology profession. It did not investigate the role of emotional intelligence in other health and social care professions, and it would be interesting to investigate whether there are differences in emotional intelligence across health and social care professional both at the start and at the end of training.

A secondary aim of this research was to explore the validity of the CPLDF (DCP, 2010) as a cohesive framework of clinical leadership. A single dominant clinical leadership factor was found in all three CLBS scales suggesting that the behaviours described in the CPLDF all related to clinical leadership (Long et al., 2011). The three leadership behavioural domains of the CPLDF (*clinical*, *professional* and *strategic*) were also supported for trainee clinical psychologists and practising clinical psychologists, indicating that leadership behaviours can be categorised simply for these groups. This is particularly useful for clinical psychologists who are developing their clinical leadership skill, it can also focus employers in selecting candidates with particular skills sets. This research study has applied a quantitative method to investigate emotional intelligent, future research could build on this using qualitative methodologies to investigate what clinical leadership skills mean to different professional groups working in health and social care settings.

For consultant clinical psychologists a single unifying clinical leadership factor best described the CLBS-C, suggesting a more integrated operational definition of clinical leadership for this group. This suggests that clinical leadership becomes increasingly integrated as people progress through the clinical psychology career spectrum. This is consistent with findings from qualitative research in established and aspiring doctor leaders within a medical setting (Taylor et al., 2008). The validation of the CPLDF is particularly encouraging because it suggests that the profession is practising clinical leadership in a consistent way that is compatible with current NHS guidance and strategy (Department of Health, 2010; Long et al., 2011). Further evaluation of the CLBS scales using confirmatory factor analysis would add to the reliability of the present findings.

Reviews of the existing evidence base have questioned whether age and clinical experience influence emotional intelligence and leadership development (Arora et al., 2010; See Chapter 1). Research in the general population suggests that trait emotional intelligence is associated with increased age (Petrides & Furnham, 2006) and this was supported in the present study by a small effect size. The current results also suggest that trainee clinical psychologists increase their clinical leadership behaviours as they progress through training regardless of age. This is consistent with longitudinal research into nursing and physiotherapy training (Benson et al., 2012; Larin et al., 2011). Practising clinical psychologists also seem to increase their leadership behaviours as they gain clinical experience but an inverse relationship was observed in consultant clinical psychologists. It could be the case that older consultant clinical psychologists display less clinical leadership behaviours than younger consultants because they have a more established way of working that was consolidated before the introduction of clinical leadership guidance (British Psychological Society, 2007). However, this would need empirical investigation.

Both trainee clinical psychologists and the two qualified groups of clinical psychologists had a higher base rate of trait emotional intelligence than reported normative samples (Cooper & Petrides, 2010). Other professional groups such as doctors and nurses have also self-reported higher-than-national-norm levels of emotional-social intelligence (Bar-On, 2006; Benson et al., 2012; Jenson et al., 2008; Larin et al., 2011; Parker & Sorensen, 2008; Wessel et al., 2008), suggesting that high levels of emotional self-efficacy may be associated with the caring professions.

The development of high quality clinical leadership is ultimately about raising standards in the quality of health care provision in order to deliver excellence to patients and users of clinical services (Department of Health, 2008; 2010). Research has shown that good quality leadership in clinical contexts can result in improved clinical care and has even been shown to reduce mortality rates in acute healthcare settings (Cummings, Midodzi, Wong, & Estabrooks, 2010; Wong & Cummings, 2007). Clearly then, finding ways of enhancing clinical leadership is of significant importance in improving the quality of service provision. The present study found a positive association between trait emotional intelligence and clinical leadership. As such it is possible that cultivating trait emotional intelligence within the clinical psychology profession could result in improved outcomes for users of clinical psychology services.

This study used self-report measures to investigate all variables, which are vulnerable to faking and rely on participants having a good level of self-awareness in order to complete them (Day & Carroll, 2008). Future research could modify this affect by developing 360-degree measures to compare self-report with observer ratings of leadership beahviours (e.g. TEIQue 360o; Petrides, 2011). The shortened TEIQue lacks precision for very high scorers (Cooper & Petrides, 2010) and as such differences between the three groups may have gone undetected in the present study. Using the full TEIQue would avoid sensitivity issues of measurement due to its better psychometric properties (Petrides, 2009). Another advantage of using the TEIQue in future research would be to gain further understanding about the relationship between clinical leadership and the fifteen facets of trait emotional intelligence (Petrides et al., 2007). The TEIQue-S gives a global score of emotional intelligence (Cooper & Petrides, 2010) and this global trait was not investigated in this study. Greater specificity over which particular elements of emotional intelligence contribute toward clinical leadership would allow for a deeper understanding of the relationship between emotional intelligence and leading teams.

The sample used in this study was large and representative of the clinical psychology profession, but there were a disproportionate number of final year post-graduate doctoral students in the trainee sample. As such, some of the items on the CLBS-T may be invalid for less experienced trainees. The operational definition of clinical leadership used in this study was also clinical psychology specific through its examination of the CPLDF (DCP, 2010). Although the CPLDF has been mapped to the CLCF, a framework relevant to all UK registered clinical professionals, extending the current findings to other professional groups should be done with caution; this study highlights the importance of developing leadership research with other groups within the helping professions.

The shared variability between trait emotional intelligence and clinical leadership in the present study was 11.5% but other factors may have confounded this. A meta-analysis (Hoffman, Woehr, Maldagen-Youngjohn & Lyons, 2011) has shown that individual differences in state-like factors such as motivation, skills and knowledge can have as much influence on effective leadership behaviour as trait factors. Therefore individual motivation may have influenced the results. The population in this study was representative of a range of clinical contexts however this study did not investigate the differing effects of context on leadership behaviours. Future studies should investigate whether the differing specialties influences the extent to which people are able to demonstrate leadership behaviour.

**2.5 Conclusion**

This study has identified that trait emotional intelligence is positively related to clinical leadership behaviours among trainee clinical psychologists and qualified clinical psychologists across the career spectrum. The Clinical Psychology Leadership Development Framework (CPLDF; DCP, 2010) represents an empirically valid framework to guide clinical leadership development within the profession. Good quality clinical leadership is an essential factor in raising the quality of clinical services in order to improve outcomes for patients and users of NHS services. Increasing the level of trait emotional intelligence within the clinical psychology profession, either through targeted recruitment or training, may represent one way of enhancing clinical leadership. More research is needed to build a reliable evidence base that will inform and guide the development of the clinical psychology profession on this important professional issue.

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