Doctoral Thesis

Submitted in partial fulfilment of the Lancaster University Doctorate in Clinical Psychology

Costs of Caring and the Psychological Wellbeing of UK Mental Health Professionals

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Word Count Statements

Section	Main Text	Appendices, References, Figures and Tables	Total
Thesis Abstract	299	-	299
Literature Review	7999	5338	13337
Empirical Paper	7760	4369	12129
Critical Appraisal	3999	683	4682
Ethics Documents	1134	6257	7391
Total	21191	16647	37838

Thesis Abstract

'Costs of caring', such as burnout (BO), compassion fatigue (CF) and secondary traumatic stress (STS) are well documented as occurring within healthcare professions. Chapter One will describe a systematic literature review identifying risk and protective factors for these in mental health professionals (MHPs) in the UK. Six databases were searched (Academic Search Ultimate, AMED, CINAHL, PsychArticles, PsychInfo and Medline), with 11 papers fitting the inclusion criteria. Limited research was available in relation to STS and CF. All papers included reported BO, with factors found to increase risk including increased overtime hours, whilst increased availability and time for supervision acted as protective factors. Despite the small amount of research in the area, support is provided for the job-demands resources model. Practical suggestions (such as providing protected time) and areas for future research are discussed.

Chapter Two reports an empirical study investigating the impact of leadership and adult attachment style on psychological safety (PS) in National Health Service (NHS) mental health staff, using leader-member exchange and attachment theories as a basis. Participants (*N = 154)* completed an online survey consisting of validated measures of PS, adult attachment style and leadership factors. Regression modelling showed that leadership significantly accounted for 42.4% of the variance in PS scores. There were no significant correlations between attachment and PS, or leadership. Clinical implications look at supporting leadership at all levels to develop a psychologically safe environment, as well as how commissioners can provide input to support with this. Future research will benefit from using longitudinal methodologies to increase the ability to prove causality.

Chapter Three provides a critical appraisal of the research process, expanding more on limitations, as well as both clinical and research implications of Chapters One and Two. Key decisions and learning from the process are also discussed, including reflections on the process.

Declaration

This thesis details research undertaken as part of the Doctorate in Clinical Psychology, within the Division of Health Research at Lancaster University, between December 2021 and March 2024. The work presented here is the author's own, unless otherwise stated. This work has not been submitted elsewhere for the aware of another degree or award.

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I would like to thank all those NHS staff who took part in this research; without your effort, time and input, this work would not have been possible. I would like to thank those staff who I have met through, not just training, but my career (so far!) in the NHS. I am so inspired on a regular basis by those who I come in contact through work and the absolute compassion and strength with which you all manage yourselves. I hope this work does justice to some of the stories I have heard and been a part of.

I would like to thank my research supervisors; Dr Katy Bourne and Dr Laura Twist. For supporting my research in an area where I am so passionate, for the draft reads and detailed feedback, and for the support offered during (and between) research meetings. The thesis has definitely been a learning journey and I am grateful for the support offered by you both.

Finally, to my family, friends and husband, thank you for always being there. The guidance, support (and occasional distraction) that you have provided me with has been immeasurably helpful, not just during the process of the thesis, but during the doctorate and beyond.

Contents

Chapter One: Systematic Literature Review

Risk and Protective Factors for Secondary Traumatic Stress, Compassion Fatigue and Burnout in UK Mental Health Professionals: A Systematic Review

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Abstract: 325

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[1] See Appendix I for submission guidelines

Abstract

Background: Mental health professionals (MHPs) are required to work with those who are highly distressed. Research has looked into the psychological impact of working as a MHP in relation to the outcomes of this work, whilst research into risk and protective factors has been limited. Although there have been some systematic reviews in the area, these have tended to use international samples. Whilst these can be helpful, they can miss the nuances of specific healthcare systems, and the socio-political environments in which they sit.

Aims: The present review aimed to systematically appraise and synthesise existing research on risk and protective factors for Secondary Traumatic Stress (STS), Vicarious Trauma (VT), Compassion Fatigue (CF) and Burnout (BO) in UK MHPs.

Method: Six databases (Academic Search Ultimate, AMED, CINAHL, PsychArticles, PsychInfo and Medline) were systematically searched for relevant papers from 24th March to 19th May 2023. Quality appraisal was conducted using the Appraisal Tool for Cross-Sectional Studies (AXIS; [54]). Effect sizes were identified or calculated and subject to narrative synthesis to identify risk and protective factors.

Results: A total of 11 papers were included,(*N* = 2247). Quality appraisal showed that studies were of moderate-high quality. No papers investigated VT, whilst BO was the most researched concept. The majority of factors found to impact on BO and STS were organisational, including the protective role of supervision, and the impact of overtime and clinical work hours in increasing the risk of BO. Personality factors (such as sense of coherence) were protective against CF. Mixed findings regarding demographic variables mean that firm conclusions cannot be drawn.

Conclusions: The present review was the first to synthesis data in STS, VT, CF and BO specifically from UK MHPs. The findings provide support for aspects of the Job-Demands-Resources model,

which can help to develop interventions to support MHPs. However, further research is required to gain more conceptual clarity, and reinforce the findings from the present review.

Keywords; Mental Health Professionals, Psychological Impact, NHS.

Introduction

The Francis Report[1] identified that the emotional well-being of healthcare staff, and those working in healthcare settings was important to ensure continued high standards of patient care. Although the report focused on physical healthcare settings, similar experiences have occurred within mental healthcare settings, with inquiries reporting similar findings [2]. These reports predominantly focus on systemic changes, potentially missing the individuals who work within these systems. The importance of staff wellbeing has also been reflected within the National Health Service (NHS) long-term plan, which highlighted the importance of meeting the needs of the NHS workforce in order to ensure that staff felt safe and supported within their work [3].

Healthcare staff are highly motivated and driven in their work, for a range of reasons. This can influence their experiences of the role, potentially leading them to try to achieve 'perfect' levels of care for those they encounter [4]. Research has established that healthcare professionals, particularly those who are exposed to other's experiences of trauma, such as mental health professionals [MHP's]), are likely to be further emotionally impacted by their work [5]. Research into this has identified several theoretical concepts including Burnout (BO), Vicarious Trauma (VT), Compassion Fatigue (CF) and Secondary Traumatic Stress (STS); which influence staff wellbeing within the workplace.

Secondary Traumatic Stress

Secondary traumatic stress (STS) consists of symptoms and experiences similar to those for post-traumatic stress disorder (PTSD) such as intrusive 'flashback' like images, hypervigilance and a sense of helplessness; following exposure to another individual's traumatic experiences [6]. It can affect a range of professionals who come across the traumatic experiences of others, including judges [7], lawyers [8] and teachers [9]. Within MHPs, research has found that 44.8% of psychiatric nurses were in the "high-risk" category for STS [10]. Whilst this study was focused on psychiatric nurses in Greece, similar findings have been found within international populations [11] [12] [5].

Research has widened its focus outside of mental health nurses, with one study finding that 70% of psychotherapists employed by the NHS were at higher risk of STS [13]. In contrast, previous research found that levels of STS within their sample were relatively low [14]. This could be because the sample in this study consisted of several different professional groups, as opposed to just psychotherapists [14]. Psychotherapists may be more exposed to the traumatic experiences of clients than other professionals, through the nature of their work. The studies also used samples from different countries, one from the UK and one from Australia. These separate countries and healthcare systems may have other factors that influence the development and/or reporting of symptoms of STS.

The impacts of STS in MHPs have also been investigated. Christodoulou-Fella et al [12] identified work-based outcomes for mental health nurses that were associated with high levels of STS; namely reduced productivity and inadequate safety of care for patients. Potential reasons suggested for this included reduction in neurocognitive functioning, somatic symptoms (such as sleep disturbances), and difficulties in communications that may result from STS. Whilst this study used a Cypriot sample of mental health nurses, similar findings have been identified in other MHPs and countries. [15, 16]

Research in the area has predominantly utilised methods that do not predict causality, meaning that the results do not differentiate between factors being a result of STS, or whether they contribute to STS. In addition to this, research often does not control for other variables that may influence STS symptoms, such as self-care behaviours, or professional's own previous trauma experiences. Whilst this does not take away for the value of the research, it is something to hold in mind when interpreting the results.

Compassion Fatigue

Another concept is Compassion Fatigue (CF). This was originally identified as a form of caregiver burnout, specific to care-giving professions [17], characterised by quick onset of symptoms

in relation to senses of hopelessness when supporting clients, isolation from others and reduced empathy [18]. CF is a construct that has conceptual overlap with STS, where it is argued that CF provides a less stigmatizing description for professionals than STS [6]. It has also been argued that CF may be a concept that is made up of STS and burnout (BO), acting as the negative aspects of working within a caring profession [19]. This has led to some confusion, with terms being used interchangeably within the literature. A recent concept analysis [20] has supported the idea that STS and CF may refer to the same concept. However, other conceptual reviews have argued that compassion fatigue is more general, and may result from the chronic use of compassion and empathy in the face of the distress of others, rather than exposure to the trauma of others [21]. Due to the development of the concept being predominantly with healthcare staff, this is where CF research has continued to focus. Despite this, papers looking at other professions [22-24] have produced similar findings in relation to conceptual overlap, and highlighting that CF that is not exclusive to those who work within healthcare.

Research has shown that the levels of CF within healthcare staff can vary, with a recent meta-analysis [25] finding that average CF scores varied based on geography and clinical speciality (such as oncology, ICU, etc). Findings suggested that CF scores were higher in Asian countries than other area and in ICU workers than other specialties. However, papers included in the analysis were predominantly from Asia (81.6%), with some from the Americas (14.5%), Europe and Australia (3.9% each). Whilst this does not discredit the comparisons drawn, it highlights that these should be considered with caution, given the discrepancies in sample sizes. Similar considerations should also be drawn around the findings around work area, where there was a large difference in the number of papers that reported on ICU staff [24] versus psychiatry [5]. Further research has found that within specialties, there is variation. Marshman et al. [26] identified that CF scores within mental health nurses varied from low to high, and were impacted by a range of factors, such as workplace culture, clinical supervision and individual wellbeing strategies. The impact of CF in the workplace has also been of interest, with research finding it can influence healthcare professionals' turnover intention

[27], job satisfaction and quality of care [28]. Whilst these are predominantly from samples of physical health staff, similar findings have also come from MHPs [29].

Research has also looked at compassion satisfaction (CS), which can be defined as the positive outcomes of caring, such as satisfaction and pleasure from engaging in this work [30]. This shows the variability in response that staff members can have to working in caring professions. Combined with the construct overlap with STS and BO, this has influenced research into CF and the 'costs of caring' as a whole.

Burnout

Arguably the most researched of the four concepts is BO. Conceptually, BO varies from the previous constructs, as it is not directly a result of emotional engagement with high levels of distress, or the traumatic experiences of others. Instead, burnout is characterised by emotional exhaustion, negative feelings towards work and dissatisfaction with the job, or the self, in relation to work [31]. This is reflected in early research, which focused on a range of professions, including lawyers [32], police [33] and social workers [34], in addition to nurses, counsellors and supervisors [44]. During the development of the Maslach Burnout Inventory (MBI) [31], BO was identified as having three components; emotional exhaustion (EE), depersonalisation (DP) and Personal Achievement (PA), something that has been widely accepted within the literature.

Potential causes of BO have also been investigated, however, this has proven difficult due to the construct being present across such a wide range of professionals and settings. One of the most broadly applicable models of BO was the Job Demands-Resources (JD-R) model [36], which proposed BO as the result of job demands being too high and job resources being too low. This imbalance leads to exhaustion and disengagement with workplace behaviours. This model has been successfully applied to a range of healthcare settings, such as oncology [37] and end-of-life care [38]. Despite the JD-R having a robust research backing within healthcare settings, it can fail to account for individual and relational factors. For example, organisational culture can impact on levels of staff

burnout within healthcare settings [39], and whilst several factors of the JD-R model are indicative of culture, it is not explicitly accounted for. Research has also found individual differences (such as gender) can have an impact, with male and female physicians differing in the level of impact that certain predictors had on levels of burnout. For example, Goal Orientation was a significant predictor of EE in male, but not female, staff [40]. This shows the range of factors relating to BO in healthcare settings are not limited to work-related factors, but these may play a role in mediating the impact of BO.

BO within MHPs specifically has been found to be high, especially in relation to levels of EE, however, results have been mixed in relation to DP and PA [41]. This might go some way to explain findings by Morse et al, [42] who found prevalence rates for burnout in MHPs ranged from 21 to 67%. Whilst there are some similarities between factors related to BO in physical and mental healthcare staff, some areas are specific to MHPs, including the potential underfunding of services and exposure to clients who may be physically aggressive [43]. Impacts of burnout have been found to be similar to physical healthcare staff, including turnover intention [44], sickness absence [45] and a reduction in the quality of patient's care [42], highlighting the importance of developing interventions in the area to support staff, teams and the wider systems to reduce and manage BO.

Despite the initial appearance of conceptual clarity, BO has still been found to be linked with other constructs used in this review. For example, the JD-R model has been associated with CF in MHPs [46], and BO is also theorised as one of the components of CF in Stamm's model of Professional Quality of Life [19] (see appendix II), alongside STS. This highlights clarity between constructs is lower than originally assumed, with a high level of inter-connectedness between them. There is also limited research on organisational and higher-level factors that may influence BO, meaning organisational culture, local and national politics may be being overlooked.

Vicarious Trauma

It was also intended that the review would look at vicarious trauma (VT), however, searches provided no results. Vicarious Trauma (VT) refers to more cognitive changes that occur due to working with those who have experienced trauma. This can include changes to professional's schemas, beliefs and assumptions about themselves, others and the world, including changes to beliefs on trust, safety, and control [47], which are cumulative, pervasive and can be permanent [48]. The concept of VT was developed using constructivist self-development theory to explain the experiences of psychotherapists who empathically engaged with the traumatic experiences of others. In relation to MHP's specifically, research has found psychiatric staff felt that hearing the traumatic stories of those in their care had a 'profound effect' on them. This highlighted the impact of working with those who self-harm and the vicarious trauma experienced following seeing clients in such distressed states, with staff reporting that these experiences affected their relationships with romantic partners and peers, extending beyond their 'professional lives' [49].

Potential reasons for VT not being captured in the present review is discussed further in the 'discussion' section.

Rationale and Aim of Literature Review

The National Health Service (NHS) is the UK's healthcare system and is currently under a large amount of pressure, including within mental health services. Recent data from NHS Digital shows staff sickness levels because of mental health accounted for 25.5% of all sickness absences in August 2022 [50]. Similarly, findings have shown that 12% of the NHS MHP workforce left their roles in the 2021-22 financial year. Although specific reasons were not provided in all cases, work-life balance was noted as a contributing factor in 10% more cases since 2012-13 [51]. Private mental healthcare services in the UK show a much starker picture, with the CQC finding that Priory Group (a private provider in the UK) had reported staff turnover levels around 40%, although had not reported any potential reasons as to why [52].

There has been a reasonable amount of research into STS, CF and BO in MHPs, including the potential impact. Despite this, there has been no review pulling together current research findings on potential risk and protective factors in this specific cohort. This is important to support the development of future interventions, as those based on findings from other countries or specialities may not be as effective. The present review will therefore aim to fill this gap, identifying risk and protective factors in UK MHPs, as well as highlighting potential gaps in this area of research.

Method

Search Method and Study Selection

A systematic review of studies looking into risk and protective factors for STS, VT, CF and BO was conducted following PRISMA standards [53]. The research question and subsequent search strategy were refined using a PICO search strategy (see Table 1). For inclusion in this review, studies had to be: (i) written in English, (ii) published in a peer-reviewed journal before 24th April 2023, (iii) be quantitative, (iv) use samples of mental health professionals working in the UK (e.g., mental health or psychiatric nurse, psychologist, etc), (v) measure VT and/or STS and/or CF and/or BO and (vi) consist of quantitative analysis between VT/STS/CF/BO and other variables. Any studies where the following criteria were met were excluded: (i) interventions aimed at reducing VT/STS/CF/BO, (ii) prevalence only studies, (iii) staff from samples working outside of the UK (including professionals who live in the UK, but work remotely abroad), (iv) staff working outside of a mental health setting (e.g.; psychologists working in oncology), (v) not empirical data from a peer-reviewed journal (e.g.; reviews, conference papers), and (vi) not available in English.

Papers were identified through six databases: Academic Search Ultimate, AMED, CINAHL, PsychArticles, PsycInfo and Medline. Research syntax was developed alongside a faculty librarian and used Boolean operations around: 1) variations of BO, VT, CF or STS, 2) mental health

professionals, and 3) risk and protective factors (see table 2 for the search strategy used). Once searches had been conducted, all citations were uploaded into EndNote reference management software (version 9.0). Duplicates were first removed, before an initial screen of titles and abstracts was conducted using the inclusion and exclusion criteria. Full texts of remaining papers were obtained, and screened using the inclusion and exclusion criteria. Reference lists of relevant systematic reviews were also searched and relevant papers 'screened in'.

Quality Appraisal, Data Extraction and Synthesis

Quality appraisal was conducted on the remaining eleven papers, using the Appraisal tool for Cross-Sectional Studies (AXIS; see Appendix III for blank copies of the tools) [54]. This was chosen due to being comprehensive, having questions to consider risk of bias, as well as methodology and write up of the studies, and a helpful supporting document to assist. The tool consists of 20 items aimed at assessing the above, and covered a wide range of areas, including research aims, methodology, results, discussion, conflicts of interest (including funding sources) and ethical approval. Items were either marked 'yes', 'no', or 'don't know', and although a numerical scoring system is not given by the tool itself, one was used by the appraiser to give a rough quantitative measure of quality, to allow comparisons to be tentatively drawn. Items marked 'yes' were given a score of 1, except for items 13 and 19 which were reverse scored (and so given a score of 1 for every 'no'). Therefore, the highest score that could be achieved was 20. A higher score would therefore indicate that the study was of higher quality and had a reduced risk of bias. Quality appraisal was conducted on all papers by one author, and a random sample (*n = 3, 27%*) was also quality appraised by an independent colleague who was not part of the research team. These scores were then compared to try to reduce any personal bias within the quality appraisal process. Quality appraisal was not used to exclude studies, however was considered when drawing conclusions.

Information on all papers included in the review was documented in a custom designed table (see table 3) by one author. Information captured included: The author(s); year of publication;

location; study aims; sample size; participant characteristics & demographics; factors investigated; measures used and main findings. Effect sizes were calculated for each study to allow for comparison and to show the relevance of findings, based on Cohen [55]. These were subject to narrative synthesis, to identify risk and protective factors for STS, VT, CF and BO.

Results

Initial database searches yielded 1,431 results, which were reduced using the screened process described above. This process yielded a total of 11 papers. See Figure 1 for full process.

Study Characteristics

Main characteristics have been summarised in Table 3. Papers were published between 1999 and 2020, and collected data from a total sample of 2,247 participants across England, Wales and Scotland. No papers specifically reported collecting data from Northern Ireland, although this may have been included in papers that collected data from the UK as a whole.

Sample sizes for the present review ranged from 37 [56] to 510 [57], with a mean sample size of 204. One paper [58] reported a smaller sample size for their second hypothesis, due to a high number of missing items on their survey impacting the amount of usable data. Ages of participants ranged from 20 to 85, however three papers [45, 56, 59] did not given ranges for the age of their samples. The percentage of female participants varied from 45.3% [60] to 86.9% [57]. Samples covered a range of different professions, including mental health nurses, healthcare assistants, psychological professionals and therapists.

Measures Used

A range of measures were used for the outcome variables, showing the conceptual variation in the area. Whilst the most commonly used was the MBI [31], 4 different measures for burnout were used.

Quality Appraisal

The AXIS quality assessment tool [54] was used to appraise included studies, with results shown in Table 4. Scores ranged from 12 [61] to 17 [58, 60, 62] out of the possible 20. The median score achieved by the papers was 14, with scores ranging from 12 to 17. Only 5 papers justified the sample size, [13, 58, 59, 60, 62], however these were published more recently than other papers included in the review, so this may be the result of differing requirements for publication, or better understandings of Power calculations. This may also be seen in item 19, (funding sources and conflicts of interest), where the majority of papers published in 2009 or earlier were marked as 'don't know', meaning information may not have been required in manuscripts . Non-responders were described in two studies [58, 60], resulting in concerns about non-response bias in most studies. Given the conceptual nature of BO, there was concern that staff who were burnt out would not have capacity to engage in the studies. One study [13] contained discrepancies between results and discussion, reporting the incorrect direction of some results. Results have therefore been interpreted with caution.

Study Results

Of the 11 studies reviewed, none looked at VT. Whilst one [63] looked at Vicarious Post-Traumatic Growth, it cannot be assumed that this is the 'opposite' of VT, and as such conclusions were not drawn around this. 1 paper briefly looked at STS [13], 1 looked at CF [63], and all 11 papers looked at BO as a dependant variable. Although Sodeke-Gregson et al [13], claimed to investigate CF, they did this through the use of STS and BO subscales, and did not synthesise this within their own paper (e.g.; did not report predictors of CF as a whole concept) so for the present review, these results have been reported in STS and BO sections of the results.

Secondary Traumatic Stress

STS was investigated by 1 paper [13]. They conducted an exploratory study, investigating the impact of demographic, work and coping variables of UK therapists on levels of STS, BO and

compassion satisfaction (in line with Stamm's model [19]). Their model only accounted for 10% of the variance, with three significant predictors being highlighted. This only gave a small effect size, based on Cohen [55], indicating that, whilst statistically significant, the model may not hold much clinical significance. Significant individual predictors in the model gave small effect sizes, highlighting that these factors may only contribute a small amount to someone's risk of STS. It was identified that time spent in individual supervision and time spent engaged in self-care were positive predictors of STS. The authors hypothesised that this unusual finding could be explained by those struggling with STS actively engaging in self-care and increased supervision to manage this, but any positive, long-term outcomes would not be captured in the cross-sectional design. These predictors were found to have medium effect sizes, meaning that they provide a more substantial impact on the risk of development of STS.

Although the paper reported that those with a personal trauma history were more at risk of developing STS, this was something that was less clear in the results. The results reported a negative correlation between personal trauma history and STS (which would traditionally indicate that higher levels of personal trauma history predict lower levels of STS), however, the measure used to collect information on personal trauma history was part of a bespoke questionnaire designed for the study, rather than a validated measure. A copy of the questionnaire was also not included as part of the paper, meaning that how the questionnaire was scored could not be checked. Personal trauma history was found to have a small effect size, meaning that it had the smallest impact of the three significant predictors.

Compassion Fatigue

CF was also only investigated in 1 study [63]. They looked at a range of occupational and psychological factors impacted upon practitioner wellbeing, finding that CF was significantly positively associated with more experience delivering therapy (measured as 'lifetime therapy work'),

indicating that this may act as a risk factor. However, the effect size for this was small. No other occupational factors were significantly associated with CF.

However, the paper also found that sense of coherence (feeling that the world is understandable, meaningful and manageable) significantly predicted a reduction in CF, indicating that it may act a protective factor. As effect sizes were not reported and it was not possible to calculate with the data in the paper, this cannot be commented on.

Burnout – Risk Factors

BO was the most researched construct, with all 11 papers in the review looking at BO as a variable of interest. In terms of potential risk factors of BO, Coffey [61] highlighted that 'not having facilities in the community to refer clients to', 'having too many distractions when trying to work in the office' and 'giving talks or lectures to other groups of staff' were the highest causes (although not the only causes) of stress for forensic psychiatric nurses. Although unable to calculate effect sizes, other research focusing on workplace variables has found similar results. Nursing stressors, such as those described in Coffey's [61] study, were also found to impact on BO (specifically emotional exhaustion; EE, subscale) by Kilfedder et al., [57], with a medium effect size,. Kilfedder et al., [57] also identified role conflict and ambiguity as influencing participants BO scores on the EE and personal accomplishment (PA) subscales, with medium and small effect sizes respectively. Stressors were found to predict 25.3% of the total variance for EE, with a medium effect size, indicating that these contribute towards risk of BO. Other job variables found to contribute to the risk of developing BO were an increased number of job demands [58], which were found to have a medium effect size in relation to EE, but a much smaller effect in relation to depersonalisation (DP). Stressful involvement (in-session anxiety and avoidance of therapeutic relationships) was found to significantly predict both EE and DP with small and medium effect sizes respectively, even when controlling for other predictor variables. Other work-related variables linked to client-focused work, such as overtime and increased patient contact were also found to significantly predict BO, although this varied based on

practitioner [59]. For example, hours of overtime only acted as a predictor of EE and disengagement in psychological wellbeing practitioners (PWPs), whereas increased hours of patient contact predicted EE and disengagement for high intensity therapists (HITs). Hours of overtime was found to have a large effect size in relation to the BO subscales in PWPs, whilst hours of patient contact had a medium effect size in relation to HITs BO scores. However, the results of this study only reported unstandardized (rather than standardised) coefficients, meaning that effect sizes should be interpreted with caution. The final job variable found to be a risk factor for BO was being trained, or working within, a CBT orientation. These were a risk factor in Linley & Joseph, [63], with medium effect sizes, and within Steel et al. [58], although this was not investigated statistically using their own sample, instead drawing comparisons with samples from previous studies.

Personality variables were identified as being risk factors for BO within three papers [56, 57, 60]. Negative affectivity was found to significantly predict both EE and DP subscales for BO, when controlling for work-related stressors [57]. Although we cannot calculate the effect size specifically for this variable, the effect size for the 'step' that negative affectivity was in (mediators/moderators), were medium and small for EE and DP respectively. Although showing a small effect size, negative affectivity was the only significant predictor of DP in the mediator/moderators step and the most statistically significant variable in the mediators/moderators step for EE. In addition to negative affectivity, and the heightened experiences of negative emotion that may come with this, Cramer et al. [60], also found avoidance of emotional experiences was a predictor for psychological exhaustion and indolence subscales. Effect sizes for these subscales were identified as medium and small respectively. Again, this shows that despite statistical significance, there may be other factors impacting on BO. Finally, less tolerance towards aggression was related to BO in Whittington [56], with medium effect sizes in relation to EE and DP. However, this study used correlational analysis only, so cannot draw conclusions in relation to causality. More investigation is therefore needed to draw definitive conclusions.

Finally, although demographic data was collected in all papers, not all reported significant results in relation to this. Younger age was identified as being a risk factor for BO by five studies [13, 58, 60, 62, 64]. Whilst the majority of studies found those who were younger had higher scores on the DP subscale of burnout [58, 62, 64], Cramer et al. [60] found younger participants scored higher on the psychological exhaustion subscale. However, this study was the only one in the review to use an English version of the Spanish Burnout Inventory (SBI) [65]. Sodeke-Gregson et al., [13] reported on the impact of age on BO only, rather than subscales, however supported the idea that younger age is a risk factor for BO. Effect sizes ranged from small to medium for DP subscales, small in relation to psychological exhaustion [60] and medium in relation to burnout as a whole [13]. Other findings provided mixed evidence, for example Westwood et al., [59] did not find any significant impact of age on BO scores.

Gender was also presented as a potential risk factor. Edwards et al., [64] reported male staff were more likely to report higher scores for DP, although were unable to provide effect scores. Other studies have found conflicting results. Johnson et al., [62] and Westwood et al., [59] found women reported higher scores on exhaustion and EE subscales. However, despite initial significant correlations, logistic regression modelling highlighted that this difference did not remain significant [59]. However, Johnson et al. [62], found gender was the only significant predictor remaining when placed into hierarchical step-wise regression, although this only gave a small effect size.

Burnout – Protective Factors

The supervisory relationship was closely investigated in 3 papers [45, 62, 64]. These papers highlighted that the supervisory relationship could act as a protector against potential risk factors for BO. Edwards et al., [64] found EE scores were negatively correlated with levels of trust/rapport within supervision, and time available for supervision. Similarly, DP scores were significantly negatively correlated with trust/rapport, time available, supervisor advice/support and placing value on supervision. These only had a small effect size, except for the impact of finding time on EE, which

had a medium effect size. Whilst this study used correlations, making it difficult to draw conclusions on causality, Johnson et al., [62] utilised a hierarchical multiple regression analysis, finding supervision variables added significant variance to the model for the disengagement subscale. Whilst they only looked at two supervision variables (frequency and quality), they found that supervision quality had a significant independent association with the model. Again, this reported a small effect size, indicating that other factors may not have been accounted for. Perceived support by supervisor was found to significantly negatively predict BO in Sodeke-Gregson et al., [13], although again, this only had a small effect size. Despite this, other research [45] found that those who had more frequent supervision and perceived their supervision as more adequately meeting their needs scored lower on EE subscales, with large effect sizes. However, the study used multiple ANOVAs and a small sample size, increasing the risk of type II error. It is also unclear if extraneous variables were accounted for, as was attempted in Johnson et al., [62].

Similarly to job variables being potential risk factors for BO, some were also found to be protective factors. Kilfedder et al., [57] found that predictability of job-related events, job security and job satisfaction were all negative predictors of BO. Again, whilst effect sizes were not given for individual predictors, these items were considered 'stressors', and gave an overall medium effect size. Workplace support was identified as being a protective factor towards the impact of BO [13, 45] with both studies reporting medium effect size. In terms of work variables in relation to direct work with clients, Linley & Joseph [63] found that sense of coherence and self-reported positive therapeutic bonds with clients predicted reduced BO scores. Effect sizes were not reported, and unable to be calculated from the presented data. Finally, awareness of targets was negatively associated with BO in Westwood et al., [59]. Whilst this was not in line with the predictions made, once entered into the logistic regression, this association no longer remained significant.

Discussion

Overall, the present review aimed to synthesise findings from all relevant studies exploring risk and protective factors for STS, VT, CF and BO in UK MHPs. Published research on STS, VT and CF is limited, and has methodological issues which impacted on the ability to utilise these effectively as part of the current review. Research into BO was more common and provided more robust results. BO was significantly associated with a range of demographic, personality and work-related variables. Work-related factors were the most widely researched risk factors, whilst supervision-related factors were the most researched protective factors. Findings indicate that potential risk factors for BO include higher number of hours overtime worked, an increased amount of patient contact, working within a CBT orientation and higher levels of negative affectivity. Protective factors for BO included a higher frequency of supervision and having adequate supervision. Mixed results were found in relation to demographic factors in relation to both risk and protective impacts on burnout. This may be due to demographic factors interacting with other variables being investigated and the current research not picking this up. For example, BO may be impacted by factors outside of the workplace (such as friendships/social support and general home life). Risk and protective factors in UK MHPs have not been systematically reviewed previously, and the results from the present review fit in with those found in other, similar reviews [66].

Quality appraisal showed that studies included in the analysis were moderate to high quality. However, there were some issues. Firstly, there was concern about the impact of response rates on results in nearly all studies, mainly the potential that those who were not responding did so because they were more burnt-out. Although one study [58] acknowledged this, it went unmentioned in the other studies. Only three studies took measures to address and categorise non-responders [57, 61, 64], with these measures usually being general, and not requiring explicit identification of non-responders (e.g.; prompting emails). This can be a problem in cross-sectional research, particularly with large samples. There were also three studies that did not use previously validated measures [13,

[45, 57]. This may have impacted the validity of findings and effect sizes. A final area of note on item 19 of the AXIS (on funding sources/conflicts of interest), is a high portion of these were scored as 'Don't Know'. When looking more closely, the five papers that were marked this way [45, 56, 61, 63, 64] and the only paper marked a 'Yes' [57], were all published in 2009 or prior. Therefore, it is unclear if publishing guidelines did not require authors to declare funding sources unless it was a conflict of interest. This may call into question the time validity of the AXIS, and is something to be held in mind.

Risk and Protective Factors for STS, VT, CF AND BO

Given the lack of papers looking into VT and one paper looking each into STS and CF in UK MHP samples, it is hard to draw conclusions on potential risk or protective factors for these. Potential reasons for this lack of research will be discussed in more detail below.

The majority of potential risk factors for BO were organisational. Whilst most were specifically related to the job-role, such as stressful involvement [57] and specific therapeutic orientations [63], others were much more broad (for example, job ambiguity and job demands). In research using stepwise regression models, job factors were still found to have significant effects even when other variables had been controlled for [57, 62]. This was despite using different measures for burnout (OLBI and MBI, respectively). The two samples also differed in relation to the staff groups they targeted, with Kilfedder et al's [57] sample being made up entirely of psychiatric nurses, whilst Johnson et al [62] had a sample made up of a range of staff, including (but not limited to) clinical, forensic and counselling psychologists, therapists, psychiatrist and social work staff. This indicates job-related factors may act as a risk factor for BO across professions, although further research would need to confirm. Personality factors were also found to have some impact on the risk of developing BO. Specifically, negative affectivity [57] and avoidance of negative emotions [60]. Whilst these only provided small to medium effect sizes, again, this may indicate that there is a large range of factors influencing the risk of BO, highlighting the complexity of the construct. Kilfedder et al., [57] had a relatively large sample size, however was made up completely of nursing staff, meaning

that the impact of negative affectivity on BO may not be as relevant for other professions. Kilfedder et al's [57] sample was also predominantly female members of staff (86.9%), which may have impacted on the results, although it could be argued that it is more representative of population demographics, with women making up a large portion of MHPs [67]. In terms of avoidance of negative emotions [60], this was found over a much broader range of professionals, as well as a more even split in terms of gender, highlighting that this may be more broadly applicable as a predictor. Research into demographic factors (including gender) provided mixed results. For example, Johnson et al., [62] found that gender was the only remaining specific significant predictor in relation to exhaustion, and remained so even after other variables were added into the model, with the initial step showing a medium effect size. However, other research has found conflicting results [59], again indicating that gender potentially acts as a mediating factor. Interestingly, included studies only reported genders within the gender binary (i.e.; male and female), missing results in relation to those who place themselves outside of these identities. Whilst this might be due to the option to report this not being used (e.g.; no participants identifying as non-binary), this is not clear within the write-up of studies.

Protective factors for BO were also identified, although this also remains an area for further research. Findings in relation to work variables found that these predominantly gave medium effect sizes, indicating that these were the most clinically relevant in the review. This is important in terms of the applicability of findings as the work environment is something that can be improved and worked on. The importance of the supervisory relationship, although expected to be a strong protective factor, may not be as protective as initially expected. Many of the effect sizes given were small, meaning that, whilst a good supervisory relationship may offer some protection from BO this is not as protective as other workplace-based factors. However, measuring relational aspects of work relationships can be difficult, especially when there is a power imbalance, where individuals may not be honest regarding the adequacy, supportiveness or safety of their supervision [68].

The findings above provide a level of support for the JD-R model [36] of BO. Findings for risk factors showed that the majority of these were organisational and/or related to the job role. These factors (such as job demands and job ambiguity) may act as demands on individuals. In addition to this, other factors (such as avoidance of negative emotions) may indicate a lack of resources for managing these situations/feelings. The protective factors identified within this review also contribute to this. For example, supervision (found to have small effect sizes) may only act as a protective factor where this provides a resource to manage the demands of the job. Similarly, work characteristics that are protective (such as predictability and security) represent a reduction in cognitive demands within the workplace. It also highlights some of the weaknesses in relation to conceptual clarity around Stamm's model of Professional Quality of life [19] and its use in developing initiatives with MHPs in the UK. This is specifically in relation to the STS subscale and/or the use of CF as a whole concept, both of which are aspects of the ProQoL measure that appear to have been neglected within the current UK literature. Missing an entire sub-scale of a measure means that the research so far is unable to provide a clear picture of the applicability of the model of Professional Quality of Life, specifically within UK MHPs.

Strengths and Limitations

The present review provided (to the author's knowledge) the first review to synthesise data on various impacts of 'empathic engagement' with the trauma of other in the workplace, specifically in relation to MHPs in the UK. Whilst previous reviews have tended to focus on broader, international samples, this can reduce the applicability of findings clinically, due to trying interpret findings and making changes as a result of this to different socio-political and healthcare systems. Focusing specifically on UK healthcare staff has arguably reduced some of this. The review included a wider range of factors potentially impacting on STS, VT, CF and BO, and provided some similar findings to other reviews in the area. A thorough search strategy was used, with only one paper being added from screening of other reviews. This review has provided a starting point for further

research within UK MHPs regarding the psychological and emotional impacts of their work, and how we can best support with this.

Despite these strengths, the present review is not without its weaknesses. Firstly, the systematic search was undertaken by only one author. Whilst this may impact on the replicability of the review and the selection process, the research team attempted to mitigate this by following PRISMA guidelines [53] and being informed by an academic librarian. All papers included in the review were cross-sectional, meaning that conclusions cannot be used to determine causality. The majority of papers had relatively small sample sizes, however given the specific nature of the sample being investigated, this was expected by the authors. In addition to this, some of the proposed variables (e.g.; STS, VT and CF) had little to no research. This may be, in part, due to a lack of conceptual clarity in the area. For example, in the ProQoL (see appendix II), CF is seen as an overarching concept comprising of both BO and STS. This had then fed into research using the ProQoL scale, which does not have a CF scale, instead having two subscales; BO and STS (meaning that, for example, in this review, the subscales would have been included in STS or BO sections). There may also be issues in relation to VT and data collection within this area. Given the development of the construct is rooted in constructivist theory, research focused on this construct may be better suited to qualitative research methods, rather than the quantitative research used in the present review. This can also be seen in the lack of quantitative measures for VT specifically. This, combined with the lack of conceptual clarity, specifically between STS and VT, could explain the lack of research appropriate for the present review.

There is also an argument within the literature regarding the appropriateness of the term 'CF', with researchers arguing that this term is misleading in that compassion does not cause fatigue. Due to this, they argue that the term 'empathic distress fatigue' should be used instead, as it is the empathic engagement with the distress of others which causes fatigue [69]. This adds another layer to the ongoing conceptual debates in the area, as the role (if there is one) of BO and STS in empathic

distress fatigue is unclear. This lack of conceptual clarity has also influenced the measures used in the area, for example, five measures of BO were used in the present review.

Finally, although the research within the review recruited MHP's from both NHS and non-NHS settings (e.g.; 3rd sector, private practice) through their recruitment methods, there were no further reflections or comments in relation to this. For example, four of the papers [13, 59, 62, 63] used recruitment methods that did not limit their sample to MHP's employed by the NHS, however in the analyses did not report on, or explore, any differences between groups based on who they were employed by. This means that it is outside the scope of the present review to comment on any potential differences (or conversely, the generalisability to) those employed within the NHS, 3rd sector organisations or private practice.

Future Research & Implications

Given the above, future research may wish to initially focus on improving conceptual clarity in the area. For example, the five BO measures used by papers in this review show the variety of options available, and were not exclusive of all measures available. There is a lack of clarity between some of the constructs, and disagreement in how best to conceptualise these. For example, the MBI measures three factors (EE, DP and PA) of BO, whilst other measures, such as the OLBI only used two factors (EE and Disengagement). Even within measures, there is disagreement. For example, the MBI-HSS (MBI-Human Services Survey [70]) can load onto multiple models [71]. In addition to this, longitudinal research may complement the existing literature, providing evidence in relation to causality of specific risk and protective factors. Given the range of professionals that can be considered MHPs, researching differences between well-defined professional groups may give clarity regarding this as a potential risk factor. Finally, research into the effectiveness of interventions for STS, CF and BO should be identified, implemented and evaluated. This may help support conceptual clarity, as well as supporting staff wellbeing.

In terms of implications, provisional recommendations have been drawn from the present review, as further evidence is needed before firm conclusions can be made. The majority of risk factors in relation to BO were organisational, providing ideas of areas that organisations can focus potential interventions on. For example, supporting staff to balance the amount of clinical time with other aspects of work, ensuring that staff are aware of targets within the organisation and supporting staff who are taking on overtime hours may help to reduce some of the risk related to these. This could be done by implementing organisational level policies to ensure that time is protected for non-clinical work (such as training and supervision). Developing an organisational culture where staff feel safe to report their difficulties, or able to assert their own needs in relation to work would also potentially support increased staff wellbeing, although these can take longer to implement. The review also highlighted the importance of supervision as a protective factor, so organisations should ensure that there is not only protected time for supervision, but that supervisors are competent in supporting staff. No conclusions could be specifically drawn in relation to demographic variables, due to there being mixed findings.

Conclusions

In conclusion, the present review is the first to systematically draw together findings on variables associated with STS, VT, CF and BO. Despite limited research in the area, factors impacting on levels of BO in UK MHPs appear to be similar to those found in more broad, international reviews. Conclusions could not be drawn around STS, VT and CF due to a lack of research in these areas, however, some of the potential reasons for this were discussed. Whilst recommendations have been made in relation to future research, there remains a need for conceptual clarity within the area, and (particularly for VT) a need for validated quantitative measures to broaden the research in the area.

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Tables and Figures

Table 1 – PICO Search Strategy

P	Population	Mental health professionals working in the UK
I	Intervention or Exposure	Vicarious Trauma Compassion Fatigue Secondary Traumatic Stress Burnout
C	Comparator	None Used
O	Outcome	Synthesize available data on risk and protective factors in VT, CF and STS Identify gaps and limitations in the current evidence base.

Table 2 – Search strategy used for PsycInfo database

String	**Concept**	**Search Terms Used**
String 1	Vicarious Trauma (VT) Compassion Fatigue (CF) Secondary Traumatic Stress (STS) Burnout (BO)	(DE "Quality of Work Life" OR DE "Burnout" OR DE "Occupational Stress" OR DE "Emotional Exhaustion" OR DE "Compassion Fatigue") AND (DE "Caregiver Burden" OR DE "Perceived Stress" OR DE "Posttraumatic Stress" OR DE "Occupational Stress" OR DE "Burnout" OR DE "Emotional Exhaustion") OR (TI/AB((burnout OR burn-out OR "burn out" OR stress* OR exhaustion OR exhausted OR fatigue* OR reaction*) N3 (occupational OR workrelated OR work-related OR "work related" OR compassion* OR vicarious OR secondary)))
String 2	Mental Health Professionals	DE "Counseling Psychologists" OR DE "Clinical Psychologists" OR DE "Psychiatric Social Workers" OR DE "Counselors" OR DE "Therapists" OR DE "Psychoanalysts" OR DE "Psychologists" OR DE "Psychotherapists" OR DE "Psychiatric Hospital Staff" OR DE "Mental Health Personnel" OR DE "Occupational Therapists" OR DE "Psychiatric Nurses" OR DE "Psychiatrists" OR (TI/AB(mental health OR psychia*) N3 (counsel* OR therapi* OR psychol* OR psychia* OR nurs* OR social-worker* OR "social worker"* OR assist* OR doctor* OR work*))
String 3	Risk and Protective Factors	DE "Prevention" OR DE "Resilience (Psychological)" OR DE "Protective Factors" OR DE "Risk Factors" OR DE "Social Influences" OR DE "Demographic Characteristics" OR DE "Psychosocial Factors" OR (TI/AB((risk* OR protect* OR influenc*OR contribut* OR stress*) N3 (factor* OR influenc* OR Characteri* OR impact*)))
String 4		S1 AND S2 AND S3

Table 3 – Study Characteristics

Study / Location	**Study Design / Aims**	**Participant Characteristics & Demographics**	**Factors Investigated/Measures Used**	**Main Findings**	**Effect Size(s)**
Coffey (1999) / England and Wales	Cross Sectional / Prevalence of burnout and contributing stressors	NHS employed CPNs working in medium secure units *N = 80* *M age – 37.8 (28 – 56)* *Women – 46.2%* *Married or living with partner – 75%* *Living with children – 48%* *CPN – 100%* *Experience = >15 years on average*	**Burnout /** MBI (Maslach & Jackson, 1986) **Psychological Distress /** General Health Questionnaire-28 (Goldberg & Hillier, 1979) **Work-Related Stress /** Community Psychiatric Nurse Stress Questionnaire – revised (Brown et al., 1995)	Mean score in DP subscale higher than generic CPNs in previous studies. Mean scores on PA subscale higher than previous studies. Top three stressors by item ranking; 1. Not having facilities in the community to refer clients to, 2. Having too many interruptions whilst I am trying to work in the office, 3. Giving talks or lectures to other groups of staff.	Not reported & Unable to calculate

Cramer et al., (2020) / England	Cross Sectional / Coping Self-Efficacy (CSE) and Need for Affect (NFA) as drivers of subjective wellbeing	Forensic Mental Health Professionals from three secure treatment facilities in one NHS Trust *N = 170* *Age – 43.53 (SD = 12.68)* *Women – 45.3%* *Nurses/Nursing Assistants = 88.9%,* *Psychologists = 7.6%,* *Psychiatrists = 6.5%* *Lost a patient to suicide = 22.9%* *Years clinical experience = 16.28 (SD= 11.23)* *Years working in secure setting = 9.16 (SD = 5.62)*	**Coping Self-Efficacy /** Coping Self-Efficacy Scale (Chesney et al., 2006), **Need for Affect (NFA) /** Need for Affect Questionnaire – Short Form(Appel et al., 2012), **Internalizing Mental Health Symptoms /** Depression Anxiety Stress Scales (Lovibond & Lovibond, 1995), **Posttraumatic Stress Symptoms /** PTSD checklist – civilian (Blanchard et al., 1996), **Satisfaction with Life /** Satisfaction with Life Scale(Diener et al., 1985), **Burnout /** Spanish Burnout Inventory (English Version; Gil-Monte & Olivares Faundez, 2011), **Job Satisfaction /** Bespoke Survey	Age, CSE Stopping Negative Thoughts and Emotions, were negatively associated with psychological exhaustion subscale of burnout. NFA Avoidance was positively associated with psychological exhaustion and indolence subscales of burnout.	$\eta^2_p = .05$ $\eta^2_p = .05$ $\eta^2_p = .08$ $\eta^2_p = .03$
Edwards et al., (2006) / Wales	Cross-Sectional / The degree to which clinical supervision influences reported burnout in CMHNs in Wales	Community Mental Health Nurses (CMHN's) from across 11 NHS Trusts in Wales. *N = 260*	**Burnout /** MBI (Maslach & Jackson, 1986) **Supervision / Manchester Clinical Supervision Scale (**MCSS) (Butterworth et al., 1999)	MCSS had significant negative correlations with EE and DP subscales of BO. Significant predictors of EE;	MCSS & EE, *r* = -.148 MCSS & DP, *r* = -.220

		Age – 42 (Range = 25 – 64) *Women – 62%* *CMHNs – 100%* *Years in current role – 49%, 5 years +*		Trust/Rapport Significant predictors of DP; Finding Time, Trust/Rapport, Supervisor advice and Support, Importance of value of clinical supervision. Ago also acted as a significant predictor of DP.	*r* = -.19 *r* = -.21 *r* = -.23 *r* = -.17 *r* = -.17 *r* = .19
Johnson et al., (2020) / UK	Cross Sectional / Whether the quality of the supervisory relationship was associated with exhaustion and disengagement in psychological therapists when accounting for work demands.	Psychological therapists recruited from across the UK from NHS, third-sector and private organisations. *N = 298* *Age – 41.85 (SD = 9.54)* *Women – 78.9%* *Years Practising- 11.65 (SD = 7.91)* *Clinical psychologist - 57.7%* *CBT therapist - 21.1%* *Counselling psychologist - 5.4%*	**Burnout /** OLBI (Demerouti et al., 2000) **Supervision Quality / Short Supervisory Relationship Questionnaire** (Cliffe et al., 2016) **Workload and Supervision Frequency /** Bespoke questions added to demographic questions	When controlling for workload, higher quality supervision was significantly associated with lower disengagement. At the first 'Step', Age acted as a significant negative predictor for disengagement, but this effect did not remain once other variables were added. Gender acted as a significant predictor for exhaustion, even when	ΔR^2 = .021 ΔR^2 = .028 ΔR^2 = .087

		Nurse practitioner - 4.4% *Psychodynamic psychotherapist - 2%* *Forensic psychologist - 1.7%* *Psychiatrist - 1%* *Social worker - 0.3%* *Other - 6.4%* *Full time working – 63.4%*		other variables were added to the model.	
Kilfedder et al., (2001) / Scotland	Cross-Sectional / To investigate the application of a theoretical perspective to burnout in psychiatric nurses	Psychiatric nurses from across 1 Scottish NHS Trust. *N = 510* *Age – 40.1 (SD = 9.2)* *Women – 86.9%* *Years qualified – 14.9 (SD = 9.1)* *Psychiatric nurses – 100%* *Length employed by organisation – 13.4 (SD = 8.2)* *Length in post – 6.8 (SD = 6.8)*	**STRESSORS; Understanding, Predictability and Control /** Understanding, Predictability and Control Scale (Tetrick & LaRocco, 1987), **Role Conflict /** Role Conflict measure (Caplan et al., 1980), **Role Ambiguity /** Role Ambiguity measure (Caplan et al., 1980), **Job Future Ambiguity /** Job Future Ambiguity questionnaire (Caplan et al., 1980). **Non-Occupational Stressors /** Purpose designed measure,	Stressors found to account for 25.3% of variance, mediators/moderations found to account for 12.3% and strains for 4.3% for burnout. EE was increased by all stressors, except predictability. Mediators/moderators impacted on EE, with social support & positive affectivity decreased EE, whilst negative affectivity increased EE. Strains impacted on EE, with job satisfaction decreasing EE and	$\Delta R^2 = .258$

			Occupational Stress / Nursing Stress Scale (Grey-Toft & Anderson, 1981). **MEDIATORS/MODERATORS;** **Coping Strategies /** Subscale of Occupational Stress Indicator (Cooper et al., 1988), **Social Support /** Social Support Measure (House & Wells, 1978) **Positive and Negative Affectivity / Positive and Negative Affect Schedule** (Watson et al., 1988). **STRAINS;** **Psychosomatic and Physiological Stress Symptoms /** Psysom (Burton et al., 1996), **Psychological Strain /** General Health Questionnaire (Short Version) (Goldberg, 1992), **Job Satisfaction /** Job Satisfaction Measure (Warr et al., 1979). **Burnout /** MBI (Maslach & Jackson, 1986),	psychological distress increasing EE. DP was significantly impacted by demographics, although individual predictors were not significant. Predictability was the only stressor that significantly, negatively predicted DP, the overall model was significant at this step. Negative affectivity was the only significant predictor of DP at Step 3. No strains acted as significant predictors of DP. PA was significantly predicted by length in post at Step 1. At Step 2, predictability negatively predicted PA, whilst control and role ambiguity both positively predicted this. Positive affectivity was the only significant	$\Delta R^2 = .197$ $\Delta R^2 = .090$ $\Delta R^2 = .028$ $\Delta R^2 = .123$ $\Delta R^2 = .031$ $\Delta R^2 = .198$

				predictor at Step 3. No strains significantly predicted PA when added to the model.	ΔR^2 = .096
Linley & Joseph (2007) / UK	Cross Sectional / To investigate salient factors associated with aspects of therapist wellbeing	Participants recruited from across the UK using BACP and BPS registries. *N = 156* *Age – 53.67 (SD = 10.90)* *Women – 78.2%* *Years as therapist – 15.10 (SD = 8.71)* *Received personal therapy in the past – 78%* *Have formal supervision/support – 90%*	**Social Support /** Crisis Support Scale (Joseph et al., 1992), **Therapist Empathy /** Jefferson Scale of Physician Empathy (Hojact et al., 2002) **Positive Working Alliance /** Working Alliance Inventory, Form T-Bond Subscale (Horvath & Greenberg, 1989) **Burnout / Compassion Satisfaction / Compassion Fatigue /** ProQOL (Stamm, 2002) **Sense of Coherence /** Sense of Coherence Scale – Short Form (Antonovsky, 1987), **Post-Traumatic Growth /** Post Traumatic Growth Inventory (Tedeschi & Calhoun, 1996), **Psychological Changes /** Changes in Outlook Questionnaire (Joseph et al., 1993).	CF associated with Longer lifetime therapy work, Sense of coherence Burnout associated with cognitive behavioural training and current practice, Sense of coherence, Working alliance	 *r* = .20 Not reported and unable to calculate *r* = .290 *r* = .200 Not reported and unable to calculate

Sherring and Knight (2009) / UK	Cross Sectional / The extent to which mental health nurses working in cities experience burnout, the relationship between burnout and work-related variables and personal attributes.	Mental health nurses recruited via 1 NHS Trust. N = 166 *Age – 41-50 (37.2%)* *Women – 73.1%* *Mental Health Nurses – 83%* *Dual registered – 9.9%* *Learning Disability - 7%* *Time in role - <5 years – 92%*	**Burnout /** MBI (Maslach & Jackson, 1986) **Turnover Intention / Demographic Information/ Frequency and Adequacy of Supervision / Feeling Valued and Supported in Work / Involvement in Decision Making /** Bespoke Questionnaires	Higher academic qualifications predicted less EE. Having supervision, higher supervision frequency and perceived effectiveness of supervision predicted reduced EE. Increased support predicted lower EE. Feeling valued led to decreased EE and increased PA. Increased involvement with decision making was found to decrease EE and DP	$\eta^2_p = .06$ $\eta^2_p = .33$ $\eta^2_p = .14$ $\eta^2_p = .14$ $\eta^2_p = .08$ $\eta^2_p = .29$ $\eta^2_p = .06$ $\eta^2_p = .02$ $\eta^2_p = .09$
Sodeke-Gregson et al., (2013) / UK	Cross Sectional / Reported levels and predictors of of BO, STS and CF in UK therapists working with trauma clients in secondary care or specialist services.	Psychological therapists working for an NHS Trust or registered with a professional psychological body. *N = 253* *Age – between 30 – 49 years – 64.5% (mean and SD not given).* *Women – 71.94%*	**Demographic and Background Informaton /** Bespoke Questionnaire **Coping Strategies /** Coping Strategy Inventory (Bober, et al., 2006), **Burnout / Compassion Satisfaction / Secondary Traumatic Stress /** ProQOL (Stamm., 2009)	Perceived management support and age were significant predictors of burnout. The model explained 24.3% of the variance. Time spent in individual supervision, personal trauma history and time spend engaging with self-care were	*r* = -.328 *r* = .200 *r* = .187 *r* = -.139 *r* = .172

		Clinical or Counselling Psychologist – 69.6%		significant predictors of STS.	
Steel et al., (2015) / England	Cross Sectional / The degree of burnout experienced by IAPT therapists and its predictors.	High Intensity Therapists (HITs) and Psychological Wellbeing Practitioners (PWPs) recruited from eight IAPT services. *N = 116 (94 used for hypothesis 2)* *Age – 36.9 (10.4)* *Women – 79% (from subsample)* *HITs – 41.5%* *PWPs – 42.6%* *Clinical Psychologists – 6.4%* *Other – 9.6%* *Primary Model of CBT – 88.3%*	**Burnout /** MBI (Maslach & Jackson, 1986) **Therapists' working style and emotional involvement /** Therapist Work Involvement Scale (Orlinsky & Ronnestad, 2005) **Psychological Demands, Social Support and Decision Latitude /** JCQ (Karasek et al., 1998) **Control Coping /** Coping Survey (Leiter, 1991)	EE was predicted by; Psychological Job Demands, Decision Latitude, Stressful Involvement DP was predicted by; Age, Psychological Job Demands, Stressful Involvement PA was predicted by; Length of Training, Control Coping and Decision Latitude, Healing Involvement	 ΔR^2 = .355 ΔR^2 = .029 ΔR^2 = .073 ΔR^2 = .069 ΔR^2 = .074 ΔR^2 = .165 ΔR^2 = .063 ΔR^2 = .144 ΔR^2 = .120
Westwood et al., (2017) / England	Cross Sectional / Examine the prevalence of burnout in IAPT practitioners, and examine which individual and job characteristics predict burnout in IAPT practitioners.	IAPT Practitioners recruited via BABCP magazine, or through NHS Trusts in the South of England. *N = 201* *PWP – 52.2%* *HIT – 47.8%*	**Burnout /** OLBI (Demerouti et al., 2000), **Job Characteristics /** Mental Health Professionals Stress Scale (Cushway et al., 1996) & Bespoke Questions. **Demographic Information /** Bespoke Questionnaire.	Significant Predictors of EE in PWPs; Male, hours inputting data, and hours overtime per week. Significant predictors of Disengagement in PWPs; BME, Time in Current Service, Hours of	 R^2 = .27

		Age; PWP – 32 (9.3) *HIT – 40 (9.0)* *Women; PWP – 85.7%, HIT 77.1%* *Years in Current Role; PWP – 1.8 (1.12), HIT – 2.5 (0.95)*		overtime, Hours of Supervision Significant predictors of EE in HITs; Hours of patient contact and hours of telephone contact. Significant predictors of disengagement in HITs; Hours of patient contact and hours of telephone contact.	R^2 = .32 R^2 = .13 R^2 = .16
Whittington (2002) / England	Cross Sectional / Is mental health nurse's tolerance towards aggression associated with burnout?	Mental health nurses recruited using a convenience sample from a community mental health team in the north-west of England. *N = 37* *Age = 67% aged between 30 – 49* *Women = 62%* *Years Qualified = 80%, 6+ years*	**Tolerance /** Perception of Aggression Scale (Jansen et al., 1997), **Burnout** / Maslach Burnout Inventory, Human Services Survey (Maslach et al., 1996)	Tolerance of aggression was negatively correlated with; EE, DP And positively correlated with PA.	*r = -.34* *r = -.42* *r = .56*

Please note: MBI = Maslach Burnout Inventory, OLBI = Oldenberg Burnout Inventory, ProQOL = Professional Quality of Life Scales,

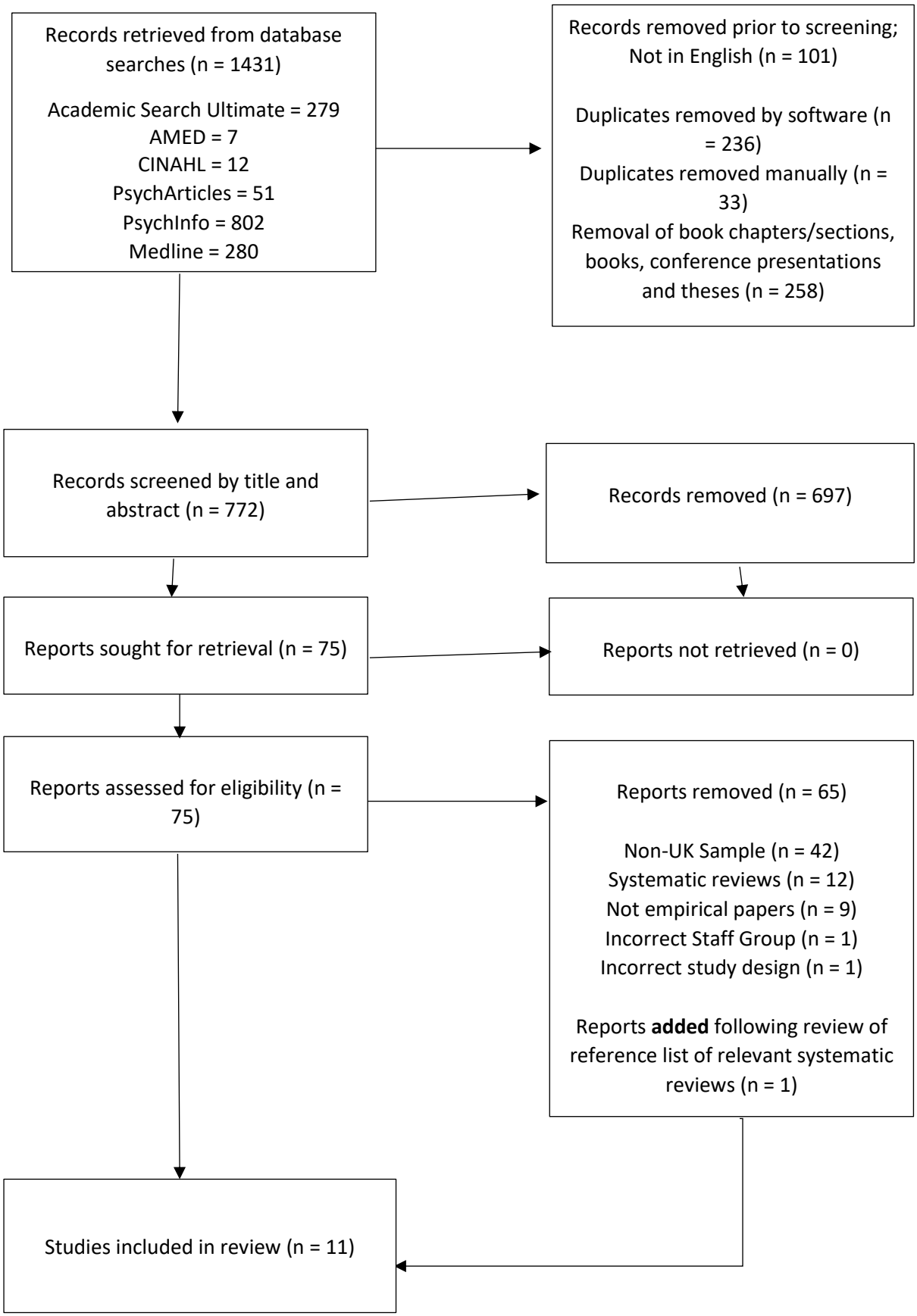
Table 4 – Quality Appraisal for Included Studies

Study	Were the aims/objectives of the study clear?	Was the study design appropriate for the stated aim(s)?	Was the sample size justified?	Was the target/reference population clearly defined?	Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?	Was the selection process likely to select subjects/participants that were representative of the target/reference population under investigation?	Were measures undertaken to address and categorise non-responders?	Were the risk factor and outcome variables measured appropriate to the aims of the study?	Were the risk factor and outcome variables measured correctly using instruments / measurements that had been trialled, piloted or published previously?	Is it clear what was used to determined statistical significance and/or precision estimates? (eg, p values, CIs)	Were the methods (including statistical methods) sufficiently described to enable them to be repeated?	Were the basic data adequately described?	**Does the response rate raise concerns about non-response bias?**	If appropriate, was information about non-responders described?	Were the results internally consistent?	Were the results for the analyses described in the methods, presented?	Were the authors' discussions and conclusions justified by the results?	Were the limitations of the study discussed?	**Were there any funding sources or conflicts of interest that may affect the authors' interpretation of the results?**	Was ethical approval or consent of participants attained?	Total Score
Coffey, 1999	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	**Yes**	DK	DK	Yes	Yes	No	**DK**	Yes	12

Cramer et al., 2020	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	**DK**	Yes	Yes	Yes	Yes	Yes	**No**	Yes	17
Edwards et al., 2006	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**	No	Yes	Yes	Yes	Yes	**DK**	Yes	16
Johnson et al., 2020	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	**Yes**	No	Yes	Yes	Yes	Yes	**No**	Yes	17
Kilfedder et al., 2001	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	**Yes**	No	Yes	Yes	Yes	Yes	**Yes**	Yes	15
Linley & Joseph, 2007	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	**Yes**	No	No	Yes	Yes	Yes	**DK**	Yes	14
Sherring & Knight, 2009	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	**Yes**	No	Yes	Yes	Yes	Yes	**DK**	Yes	14
Sodeke-Gregson et al., 2013	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	**Yes**	No	No	Yes	No	Yes	**No**	Yes	13
Steel et al., 2015	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	**DK**	Yes	Yes	Yes	Yes	Yes	**No**	Yes	17
Westwood et al., 2017	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	**Yes**	No	DK	Yes	Yes	No	**No**	Yes	13
Whittington et al., 2002	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	**Yes**	No	Yes	Yes	Yes	Yes	**DK**	Yes	14

*Items in **BOLD** are reverse scored*

Figure 1; PRISMA Flow Chart for Selection Process



Appendices

Appendix I; Submission Guidelines for International Journal of Mental Health Systems

Review

Criteria

Reviews provide comprehensive and authoritative coverage of a topic area.
Key aims of reviews are to provide systematic and substantial coverage of mature subjects, evaluations of progress in specified areas, and/or critical assessments of emerging technologies.

Preparing your manuscript

The information below details the section headings that you should include in your manuscript and what information should be within each section.

Please note that your manuscript must include a 'Declarations' section including all of the subheadings (please see below for more information).

Title page

The title page should:

- present a title that includes, if appropriate, the study design e.g.:
  - "A versus B in the treatment of C: a randomized controlled trial", "X is a risk factor for Y: a case control study", "What is the impact of factor X on subject Y: A systematic review"
  - or for non-clinical or non-research studies: a description of what the article reports
- list the full names and institutional addresses for all authors
  - if a collaboration group should be listed as an author, please list the Group name as an author. If you would like the names of the individual members of the Group to be searchable through their individual PubMed records, please include this information in the "Acknowledgements" section in accordance with the instructions below
  - Large Language Models (LLMs), such as ChatGPT, do not currently satisfy our authorship criteria. Notably an attribution of authorship carries with it accountability for the work, which cannot be effectively applied to LLMs. Use of an LLM should be properly documented in the Methods section (and if a Methods section is not available, in a suitable alternative part) of the manuscript
- indicate the corresponding author

Abstract

The Abstract should not exceed 350 words and should be structured with a background, main body of the abstract and short conclusion. Please minimize the use of abbreviations and do not cite references in the abstract.

Keywords

Three to ten keywords representing the main content of the article.

Background

The Background section should explain the background to the article, its aims, a summary of a search of the existing literature and the issue under discussion.

Main text

This should contain the body of the article, and may also be broken into subsections with short, informative headings.

Conclusions

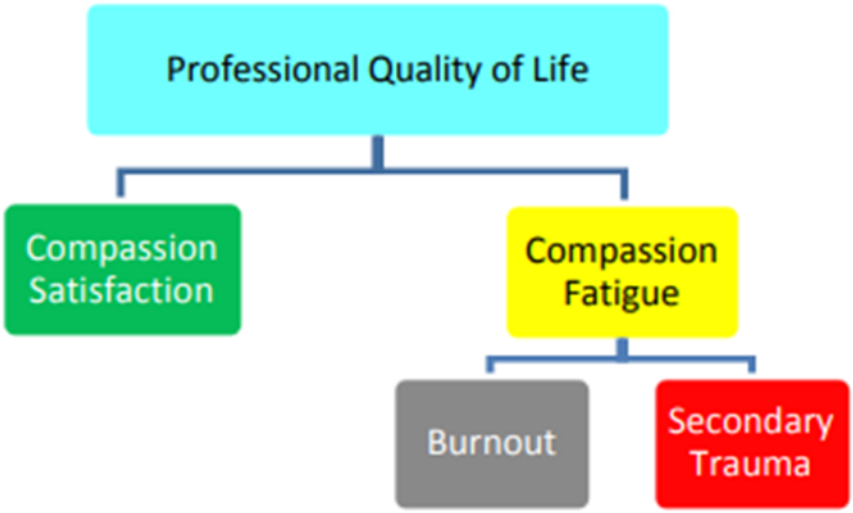
This should state clearly the main conclusions and include an explanation of their relevance or importance to the field.

References

Examples of the Vancouver reference style are shown below.

See our editorial policies for author guidance on good citation practice

Appendix II; Diagram of Professional Quality of Life



Appendix III; Blank Copy of Appraisal of Cross-Sectional Studies (AXIS; Downes et al., 2016)

Appraisal of Cross-sectional Studies

	Question	Yes	No	Don't know/ Comment
Introduction				
1	Were the aims/objectives of the study clear?			
Methods				
2	Was the study design appropriate for the stated aim(s)?			
3	Was the sample size justified?			
4	Was the target/reference population clearly defined? (Is it clear who the research was about?)			
5	Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?			
6	Was the selection process likely to select subjects/participants that were representative of the target/reference population under investigation?			
7	Were measures undertaken to address and categorise non-responders?			
8	Were the risk factor and outcome variables measured appropriate to the aims of the study?			
9	Were the risk factor and outcome variables measured correctly using instruments/measurements that had been trialled, piloted or published previously?			
10	Is it clear what was used to determined statistical significance and/or precision estimates? (e.g. p-values, confidence intervals)			
11	Were the methods (including statistical methods) sufficiently described to enable them to be repeated?			
Results				
12	Were the basic data adequately described?			
13	Does the response rate raise concerns about non-response bias?			
14	If appropriate, was information about non-responders described?			
15	Were the results internally consistent?			
16	Were the results presented for all the analyses described in the methods?			
Discussion				
17	Were the authors' discussions and conclusions justified by the results?			
18	Were the limitations of the study discussed?			
Other				
19	Were there any funding sources or conflicts of interest that may affect the authors' interpretation of the results?			
20	Was ethical approval or consent of participants attained?			

Chapter Two: Empirical Paper

Leadership Factors, Adult Attachment and Psychological Safety within UK National Health Service Mental Health Teams

Word count (excluding references, tables and appendices): 7760

Abstract: 313

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EMPIRICAL PAPER

Abstract

Background: Mental health professional's work in emotionally challenging environments, in teams with a range of professional backgrounds, trainings and viewpoints; working together to make complex decisions about individuals' risk and care. For this to be done effectively, staff must feel psychologically safe within the workplace. Research in physical healthcare has shown that leadership factors and adult attachment can impact on experiences of psychological safety, but this is yet to be explored in mental health staff.

Aims: The present study aimed to investigate the applicability of previous research to mental health professionals. Hypotheses will state that: 1) Higher scores on leadership factors will be significantly associated with higher scores for psychological safety; 2) Secure attachment will be significantly associated with higher scores for psychological safety; 3) Higher scores on each leadership factor will be significantly associated with more secure attachment.

Method: Participants were recruited via social media, and completed an online survey containing measures of psychological safety, leadership behavioural integrity, relations-oriented leadership, inclusive leadership and adult attachment. Data was analysed using one-way ANOVAs, Pearson's correlation and multiple linear regression.

Results: Professionals reported high levels of psychological safety, which is similar to findings in the wider healthcare literature. Only leadership factors were found to significantly predict psychological safety, accounting for 42.4% of the variance. Of these, only inclusive leadership was independently associated with psychological safety. Adult attachment had no correlation with either psychological safety or any of the leadership factors.

Conclusions: Teams should continue to build supportive management and leadership relationships, and this should occur at all levels of the organisation to develop psychological safety more broadly within the NHS. Further research looking at NHS mental health staff specific antecedents and outcomes is required to understand how psychological safety can support this staff group, who often experience unique stressors from their physical healthcare counterparts.

Keywords; NHS, Safety, Staff Wellbeing, Managerial Practices, Leader-Member Exchange Theory

EMPIRICAL PAPER

Introduction

Mental health professionals (MHPs) work in challenging environments, which can be fast-paced and require decisions to be made about individuals' safety, often with limited information available and in emotive circumstances. [1] In addition to typical workplace demands, MHPs also have a large amount of emotional labour (such as regulating their own emotions in difficult circumstances) within their work, with the 'invisible' nature of this meaning that this can be unaccounted for [2]. This places a large amount of stress on individual MHPs, teams and systems as a whole, with MHPs experiencing high levels of burnout (BO) [3] and fatigue [4] as a result of this. BO has been associated with sickness absences [5] and turnover intention [6] in the literature. Evidence of this can also be seen in the most recent NHS staff survey, with 48.7% of mental health nurses reporting that they had felt unwell as a result of work-related stress. 60.7% had also reported attending work, despite not feeling well enough to perform their duties, and a third (32.6%) reported 'often' or 'always' feeling burnt out as a result of work. [7] This is an area of great concern for the NHS, with BO being linked to MHP's intention to leave [8] both of which are linked to reduced patient safety, satisfaction and quality of care [9]. Given the unique pressures that the NHS faces as state-funded healthcare in the UK's current socio-political climate, it is important that staff are supported to thrive, not just survive, within their roles. One potential way of impacting on levels of staff BO, improving retention of staff and improving quality of care is to increase levels of psychological safety (PS) [10].

What is Psychological Safety?

Psychological Safety (PS) is a concept that is well-documented in the organisational literature. Originally proposed by Schein and Benis in 1965 [11] as an interpersonal factor that impacts on motivation in the workplace, it was some time before research gave more focus to this concept. When it was revisited, Kahn's [12] findings mirrored that of Schein and Benis [11], that PS (defined as "*feeling able to show and employ one's self without fear of negative consequence to self-image, status, or career*", *p.708*, [12]) was positively associated with individuals' engagement with their work. The qualitative study used USA-based samples in two separate work contexts (summer camp counsellors and workers at an architecture firm), indicating that PS was not exclusive to any individual work group. Further work by Edmondson [13] introduced the concept of PS as a team level factor, identifying that this occurred when there was a shared belief that the team was safe enough to take interpersonal risks. This was associated with increased adaptive change (characterised by reflection, feedback and adaptive action), measured via team learning behaviour and team performance, in the 51 teams studied. These teams, although in the same company, varied in size,

type, organisational level and average age, again, indicating that PS was important in a range of different contexts. Finally, PS has also been identified as existing at the organisational level, characterised by an organisation in which staff feel able to speak up, without the risk of punishment or rejection [14]. Again, this was positively associated with organisational performance in their sample of 47 mid-sized companies in Germany. The paper found that PS at the organisational level was both conceptually meaningful, and that there was agreement about how it presents, fitting the criteria for an organisational level construct, indicating its validity. Baer and Frese [14] also highlighted the importance of both formal (such as organisation processes and policies) and informal (such as discussions with peers outside of formal meetings/settings) processes in supporting higher levels of PS. Overall, PS appears at varying levels within systems and plays an important role in interpersonal risk taking, team learning and organisational development. Although all varying slightly in their definitions, the overarching theme remains the same; that PS is an interpersonal construct highlighting an environment where interpersonal risks can be taken without the fear of severe, lasting negative consequences. It has been shown to be conceptually different from other, related constructs such as trust. For example, Edmondson [15] argued that whilst trust is the openness to being vulnerable, PS is focused on how others would receive this vulnerability and the belief that they would be supportive of this.

Healthcare, and specifically mental healthcare (MHC) settings, require professionals across a range of disciplines, with a variety of trainings to make decisions quickly, with at times limited information, in a way that is safe, whilst maintaining high levels of compassion and having to potentially defend their decision making [1] It is clear to see how psychological safety is of importance. It has been shown that a psychologically safe work environment can support the delivery of high quality patient care [16], reduce staff intention to leave [17], and increase whistleblowing behaviours around unsafe practises [18] within healthcare settings. Given the current context of the NHS, with ongoing pressures following the COVID-19 pandemic, pressures in MHC services following independent investigations (e.g.; the recent 'Shanley Report' [19]) and previously discussed difficulties with staff recruitment and retention, it is important that we further understand how to promote PS in the workplace. I order to do this, we must first understand the intra- and inter- personal factors that are associated with higher levels of PS within these settings.

Safety and Attachment

Attachment theory was first proposed by Bowlby [20], and identified early relationships, particularly that with the primary caregiver, were key to developing expectations about others, ourselves and the world. This provided a 'template' we then build on in our future relationships. It is

argued that the 'goal' of these early attachment relationships is "felt security", rather than physical proximity seen in Bowlby's work [21]. That is to say, the goal of the relationship is for the child to feel secure in themselves and their interpersonal relationships. This security provided by the attachment figure provides a secure base from which the child can then explore [22]; our first experiences of taking risks, and witnessing the responses of others in relation to them. This can be seen where the attachment system of infants is activated when the infant is distressed, and deactivated when the infant experiences safety. The attachment styles identified by Ainsworth et al., [23] go some way in detailing how, over time, the attachment relationship can impact on senses of self, others and the world. Those with a 'secure' attachment would become upset when left, but were easily soothed and began exploring again once settled. Those with avoidant attachment would explore regardless of whether the caregiver was available, and those with anxious attachment styles would struggle to settle, and not resume their exploring once the caregiver returned. Secure attachment has been associated with a range of positive outcomes, including higher levels of social competence [24], better physical health [25] and psychological health [26]; indicating its importance in overall wellbeing.

In addition to attachment theory, other psychological models have focused on the importance of safety in individual development. Pre-dating Bowlby's theory, Maslow's hierarchy of needs (see Figure 1) [27] focused on identified areas of physical and psychological 'needs' that are required to reach self-actualization, or an individual's 'full potential'. Within this, psychological safety branches between 'safety needs' and 'belongingness and love needs' [28]. Due to similarities between Bowlby [20] and Maslow's [27] work, research has attempted to combine the two theories, identifying that unfulfilled safety- and love-needs result in attachment insecurity. This can prevent a person from progressing up the motivational hierarchy and fulfilling other needs [28].

Despite much of the attachment literature initially focusing on children, research on attachment in adulthood has since developed, with the focus being on peer and intimate relationships, rather than those with parents. However, findings within the literature regarding the stability of attachment styles is mixed. A meta-analysis looking at more than 21,072 individuals, across 127 papers on attachment stability found a medium effect size for attachment stability from infancy to early adulthood, however also identified no significant stability where time spans were over 15 years. This indicates that, although there was some stability, attachment style is not as 'fixed' as initially assumed [29]. Given that attachment continues into adulthood, it is therefore worth considering the impact that this will have on our adult relationships. For example, adult attachment style has been found to impact on the quality of romantic relationships, with avoidant attachment style in particular being a stronger predictor of this [30]. Similar findings have also been demonstrated with peer relationships, with securely attached individuals having higher quality friendships and

being more able to manage relationship conflict [31]. It would therefore follow that attachment style feeds into our workplace relationships, with someone working full-time hours being with their colleagues for approximately a quarter[1] of their time.

Seeking Safety in the Workplace

The application of attachment theory to organizational behaviours is not new, with early research [32] finding individuals who were more securely attached reported higher levels of job satisfaction and had more confidence in their work. Further evidence has supported the idea that adult attachment style impacts how we seek and receive feedback within work, with avoidant individuals being more open to negative feedback than secure individuals. Those with an anxious attachment style were more likely to seek interpersonal, than competency based feedback, but also more likely to notice negative feedback in this domain than positive [33], potentially as a way to protect their sense of self, and feel psychologically safe within this work relationship. Although one study in this paper looked at peer-based feedback, the second looked at feedback from someone in a position of authority (the researcher), highlighting the importance of where the feedback comes from. Given that formal feedback is normally given from management, the employee-leader relationship is important to consider.

One key psychological theory on employee-management relationships is Leader-Member Exchange theory (LMX), which describes the importance of the interaction between team members and leaders, highlighting that higher quality LMX relationships are associated with a range of positive organisational outcomes [34]. Attachment style has been found to impact on the development of high quality LMX relationships. Subordinates with an avoidant attachment style were more likely to report poorer LMX. Those with anxious attachment also reported poorer LMX, however this was mediated by relationship effort (those with anxious attachment who reported not putting effort in had poorer LMX than those who did put in effort) [35]. There is also evidence that leadership style can be associated with subordinate attachment to the leader, with passive/avoidant leadership being associated with an insecure attachment to the leader and transformational leadership being negatively associated with insecure attachment to the leader [36]. However, this research was cross-sectional, meaning that conclusions regarding causality cannot be drawn.

As shown in the research, and a recent conceptual review, both leader and team member attachment style and leadership styles are important factors in the giving and receiving of feedback [37], which is important for workplace learning and quality improvement. Similar findings have also

[1] (23.8%, based on a 40 hour working week)

been shown in healthcare teams, with leadership factors accounting for five of the seven identified antecedents of PS in a systematic review of healthcare teams [38]. Despite these findings, and a growing body of literature on PS within the healthcare setting, there is not yet the same level of interest within MHC settings, despite being identified as emotionally difficult and potentially psychologically 'unsafe' environments [39]. The limited research on PS in MHC staff has focused on outcomes [40], finding that,similarly to other industries, PS directly predicted intention to leave, in the sample of 11,726 employees, across a range of professions. However, this research was conducted in the USA, and focused on those working with a specific client group (veterans), reducing the applicability to the NHS context, and those working with broader client groups. In addition to this, a recent review into PS in MHC reiterated the importance of leadership behaviours and modelling, not just in improving PS, but in culture change as a whole [41]. However, this is yet to be supported by empirical evidence, with the review considering the application of those principles researched in physical healthcare settings to MHC settings.

Aims and Hypotheses of the Present Study

The present study will therefore aim look at some of the gaps within this area of research, specifically in applying findings from the broader healthcare literature to MHC staff. This will be done by looking at the leadership styles that support a psychologically safe environment and by explicitly looking at the impact of leadership factors and adult attachment styles on PS within a sample of mental health staff employed by various NHS trusts across England. Based on previous research, hypotheses will be as follows;

H1: Higher scores on leadership factors (behavioural integrity; relations-oriented leadership and inclusive leadership will be significantly associated with higher scores for psychological safety,

H2: Secure attachment will be significantly associated with higher scores for psychological safety,

H3: Higher scores on each leadership factors will be significantly associated with more secure attachment.

Method

Ethical Approval

Ethical approval was gained from the Lancaster University Faculty of Health and Medicine Research Committee (REC Project ID; FHM-2023-3664-RECR-1). Following consultation with both the research committee and Health Research Authority (HRA), although the research was on NHS staff, due to the

recruitment being outside of the workplace (i.e.; on social media), it was agreed that HRA approval was not needed at this time, but that this could be reviewed should there be any changes to recruitment methods. Copies of materials and the application form can be found in Chapter 4 of the thesis.

Participants

Participants were a voluntary sample, recruited via an online survey between 1st August and 1st December 2023. Individuals were eligible to participate if they were employed by the NHS, within an English trust and worked in a mental health service. Participants were not excluded based on their role within the service or the amount of time spent with the service.

Procedure

A poster advertising the study, with an accompanying hyperlink to the study, hosted using Qualtrics software, was shared online by members of the research team. This was advertised across various social media sites, such as LinkedIn, Facebook and Instagram. Snowballing techniques were also utilised, with the link being shared on these social media sites by others, reaching a wider audience. The link was shared by the researcher several times over the recruitment period.

The participant information sheet was accessed via the survey link, and was the first page that participants accessed. Participants were then taken to a consent form, where they indicated they had read and understood fully and consented to their data being used in the research. They were then given a randomised, 5-digit unique identifier code, which they were encouraged to keep in a safe place, as this could be used to withdraw from the survey at a later date if they changed their mind. Participants were then taken to the demographic questionnaire before moving on to the rest of the survey. Finally, they were given the option of leaving a contact email address if they wanted to be contacted regarding the results of the study, before being presented with the debrief sheet. This included a more detailed summary of the study, and signposting to resources for support, in case any participants experienced distress.

Measures

A questionnaire package was developed that contained seven separate measures. There were as follows;

Demographic & Job-Related Information: This information was collected using a bespoke questionnaire designed by the research team. This was done in consultation with several members of NHS staff, to ensure that data being collected was appropriate and that questions were worded

appropriately. Data collected included age, gender identity, job role, type of setting, working hours, length of time in current role and experience in related roles. Following consultation with a small group of NHS staff, much of this information was collected as group level data, to increase anonymity.

Psychological Safety (PS): This was measured using the Team Psychological Safety scale developed by Edmonson in 1999 [13]. This is a 7-item self-report scale comprising of items such as "*It is safe to take a risk on this team"* and "*If you make a mistake on this team, it is often held against you" (reverse scored)*. Items are scored on an 8-point scale from 1 = "*Completely Disagree*" to 7 = "*Completely Agree*", with items 1, 3 and 5 being reverse scored. A higher score indicates that the participant feels more psychologically safe. The scale shows a good level of internal consistency with Cronbach's alpha scores of .89 [42] and .81 in the present study.

Leadership Behavioural Integrity (LBI): This was measured using an 8-item self-report scale by Simons et al. [43]. Participants were asked to think about their manager (those with separate clinical and line management were given the option to choose, and to remain focused on this manager through the rest of the questionnaire) and rate the items on a 5-point Likert scale, ranging from 1 (*strongly disagree*) and 5 (*strongly agree*). Example items include "*my manager delivers on promises"* and *"my manager shows the same priorities that he/she describes".* No items on the scale were reverse scored and higher scores indicate that leaders are higher in behavioural integrity. The scale also shows a good level of internal consistency reliability, with a Cronbach's alpha of .87 [43] and .97 in the present study.

Relation-Oriented Behaviour (ROB): This was measured using 6 items from the Managerial Practices Survey (MPS), identified by Yukl in 1999 [44] as corresponding to relation-oriented leadership behaviours. Participants were asked to think about the same manager as the previous question and rate their responses on a 7-point Likert scale. Again, this ranged from 1 (*strongly disagree*) to 7 (*strongly agree*), with no items being reverse scored. Higher scores indicate that leaders act in a more relationally-oriented way. Example items include "*my manager backs me up and supports me in difficult situations*" and "*my manager expresses confidence in my ability to carry out a difficult task*". The Cronbach's alpha for the scale was found to be .94.

Inclusive Leadership (IL): This was measured using the 'Inclusive Leadership Scale' by Carmeli et al., [45]. This 9-item measure assesses three dimensions of inclusive behaviours within leaders; openness, availability and accessibility (three items corresponded to openness, four to availability and two to accessibility). Example items from each of these dimensions include "*My manager is open to hearing new ideas*" (openness), "*My manager is available for consultation on problems*" (availability) and

"*my manager is accessible for discussing emerging problems*" (accessibility). Participants were asked to rate how much these statements described their manager using a 5-point Likert scale, from 1 (*not at all*) to 5 (*completely*). Higher scores indicate that leadership is more inclusive. Cronbach's alpha scored for the measure indicate a high level of internal consistency reliability (.94 [45] and .97 in the present study).

Adult Attachment (AA): This was measured using Berry et al.'s 16-item Psychosis Attachment Measure (PAM) [46]. Although originally developed to assess adult attachment in those with a diagnosis of psychosis, the version used in this study has been adapted following guidance [47] to measure global attachment The measure has also been validated in non-clinical samples [46, 48]. The measure considers two dimensions of attachment (anxiety and avoidance), with 10 items correlating to anxiety, and 6 items with avoidance. Two items on the avoidance dimension are reverse scored. Examples of items from each dimension include "*I worry a lot about my relationships with other people"* (anxiety) and *"I try to cope with stressful situations on my own"* (avoidance). Participants were asked to consider how they generally related to people, and score items on a 4-point Likert scale from "*not at all"* to "*very much*", based on how much statements described them. Higher scores indicate a more anxious or avoidant attachment. The sub-scales have high Cronbach's alpha scores, at .83 for anxiety and .79 for avoidance [48]. Cronbach's alphas for the present study were .88 for anxiety and .73 for avoidance.

Analysis

An a priori power analysis was conducted using G*Power software prior to data collection. For a multiple linear regression consisting of five predictor variables, at an alpha level of 0.05 and power of 0.90, a sample size of 116 participants was required, to identify medium effect sizes (f^2 = 0.15).

Descriptive statistics of all variables were examined to understand sample characteristics. Cronbach's alpha scores were also calculated for each study variable to assess internal consistency for the present sample. One-way ANOVAs were conducted for demographic variables (age, gender and current profession), whilst an independent samples t-test was used to identify differences in PS between those who worked full-time and part-time.

Next, a Pearson's correlation analysis was conducted with study variables (PS, Adult Attachment (AA) – Anxious, AA – Avoidant, LBI, ROB, and IL), and two of the demographic variables (time in current role and time working in mental health), to identify any initial relationships. Variables that did not show a statistically significant relationship with PS were excluded from the

regression analysis. A multiple linear regression analysis was then carried out to explore predictor variables for PS.

Results

Data Cleaning and Missing Data

A total of 154 participants completed the survey. The data set was checked to ensure that participants met the recruitment criteria. Four participants were removed for not fitting this, (one identified working in manufacturing, one did not identify an area and two specified working in physical health settings, (*N = 150).* A Missing Values Analysis (MVA) was also conducted to determine both the amount and nature of missing data. Low amounts of missing data (16 items) were found, and a Little MCAR test gave non-significant findings, $X^2(526, N = 150) = 574.01, p = .072$, meaning that this data was assumed to be missing completely at random. Due to the large sample size compared to that needed for statistical power in the a priori calculation, a listwise deletion method was used to remove any incomplete data from the data set, with the aim of reducing the potential impact on standard errors or biasing the data (*N = 136)*.

Participant Characteristics

A total of 136 participants' data was used to conduct analyses for the study. The majority of participants were aged between 25 and 54 years old (84.6%), with the highest percentage age group being 25-34 (43.4%). A majority of the sample (94.9%) were female, 3.7% male and 1.5% identified as non-binary or other gender identity. 82.4% of participants reported working full time, and the most common profession was Registered Mental Health Nurse (RMN, 51.5%).. Half the sample reported working with adults (50.7%), 16.2% worked with children/adolescents, and 17.6% with older adults. 15.5% of the sample did not report working with any particular age group, although it is unclear why this option was not chosen. In terms of setting, around a third reported working in community settings (31.6%), and a quarter reported working in inpatient (25.0%). Lower numbers reported working in Forensic, IAPT and Secondary Care services (11.8%, 6.6% and 10.3% respectively). 9.6% (*N = 13)* reported working in 'other' settings. Review of the option textbox provided indicates that these included perinatal, autism and early intervention services, or services

that could have been covered by other options available. Mean for time working in current role was 3.48 years *(SD = 3.58),* and for total experience was 10.90 years *(SD = 9.05).*[2]

Statistical Assumptions

Statistical assumptions were tested prior to any analysis taking place. Assumptions of normality were tested using skewness and kurtosis scores, alongside Kolmogorovo-Smirnov results. All variables other than AAAvoidance were found to be significant, and z-scores for skewness and kurtosis showed that the data was significantly skewed (although kurtosis was not significant) [(49)]. In order to fit the assumptions of normality, data for AAAnxiety was transformed using a logarithmic transformation. Data for PS, LBI, ROB and IL was subject to reverse logarithmic transformation to fit the assumption of normality. Scatterplots, histograms and Q-Q plots were also examined, and data was found to fit assumptions for linearity. There were found to be a very small number of outliers, however these did not result in any of the data not fitting within the assumptions. Pre- and post-transformation data and graphs can be seen in appendices II and III.

In addition to these tests, further assumptions were assessed in relation to the multiple regression. Durbin-Watson statistics (2.222 for PS) and residual scatterplots showed that the data met the assumptions of independence of residuals, linearity and homoscedasticity. VIF and tolerance scores were high for leadership factor variables, but did not meet the threshold to suggest that there was multicolinearity [(50)].

Descriptive Statistics and Demographic Information

Descriptive statistics and Cronbach's alpha scores are presented in Table 1. Mean PS score was comparable to other healthcare samples [(51, 52)] (*M = 5.05, SD = 1.12*). Participants scored lower on anxious than avoidant attachment scores, scoring *M = 1.97 (SD = 0.67)* and *M = 2.54 (SD = 0.58)* respectively. Measures all demonstrated acceptable levels of internal consistency, with Cronbach's alpha scores of .73 or above.

[TABLE 1 HERE]

Analyses were then conducted to identify any associations between demographic factors and PS. An independent samples t-test found that there was no difference in PS between those who worked full-time and part-time (t[134] = -.158, *p* = .875). One-way ANOVAs were conducted in

[2] In order to conduct the appropriate analysis, responses had been rounded to the nearest year for both time in current role and overall experience

relation to age (F[4, 131] = .773, p = .545, η^2_p = .023), gender (F[2, 133] = .437, p = .647, η^2_p = .007) and current profession (F[15, 118] = .841, p = .631, η^2_p = .097), finding that there were no significant differences in PS based on these variables. Finally, Pearson's correlational analyses were conducted to identify any correlations between PS and length of time in the current role, or length of time working in mental health. Again, findings showed that there was no association between PS or either time in current role (r = .001, p = .995), or time in similar roles overall (r = .039, p = .652).

Correlational Analyses

Results of correlational analyses for main study variables can be found in Table 2. PS was strongly positively correlated to ROB (r = .654, p < .001) and moderately positively correlated with both LBI (r = .600, p < .001) and IL (r = .550, p < .001). All correlations between leadership factors and PS were statistically significant.

PS scores were found to not be significantly correlated with either AAAvoidance (r = .083, p = .337) or AAAnxiety (r = .098, p = .255). Due to this, the variables were not placed into a regression model, as the data does not show a relationship between these variables.

Secure attachment was identified in the study as low scores on the AAAvoidance and AAAnxiety subscales. AAAvoidance was found to not be significantly correlated with any of the leadership variables. Data for ROB (r = .081, p = .351) and LBI (r = .050, p = .561) indicated some, albeit incredibly weak, positive correlations, however correlations for LBI were completely non-existent (r < .000, p = 1). There were no statistically significant correlations, indicating no relationship between anxious attachment and perceptions of leadership styles. Similarly, scores for AAAnxiety showed incredibly weak correlations with ROB (r = .068, p = .431) and LBI (r = .060, p = .488). There was a slightly stronger (although still weak) correlation between anxious attachment and IL (r = .152, p = .072). This indicates some small relationship, although this was not statistically significant.

Due to the non-significant findings in relation to attachment and PS, and attachment and leadership factors, hypotheses 2 and 3 were rejected, and the null hypotheses accepted.

[TABLE 2 HERE]

Regression Analysis

Due to the significance of the correlations between PS and the three leadership factors, these were then entered into a multiple linear regression analysis. This was chosen due to only one 'factor' (leadership factors) being entered into the analysis, and due to a lack of previous research providing support for a fixed order entry of variables, as would be seen in hierarchical analysis.

Findings have been summarised in Table 3. The model was found to significantly explain 42.4% of the variance ($F(3, 132) = 34.175$, $p < .001$, $R = .661$, $R^2 = .437$, *adjusted* $R^2 = .424$). When all other variables were accounted for, ROB ($\beta = .514$, $p < .001$, 95% CI [.183, .581]) was significantly independently associated with higher PS, indicating that leadership that behaves in a relationally-oriented way is related to staff feeling more psychologically safe.

[TABLE 3 HERE]

Discussion

The present paper represents the first investigation of predictors of psychological safety within NHS mental health staff. The study explored the impact of demographic factors, leadership factors and adult attachment on staff feeling psychologically safe within the workplace. Overall, 136 participants took part in the study. The overwhelming majority of the sample identified as female (94.9%), and whilst there is some evidence that the NHS MHP workforce is mostly women, this figure tends to be lower (e.g.; 80%, [53]). Therefore, this is something that should be held in mind whilst interpreting and applying the results outside of the present study.

Hypothesis 1

PS was found to be significantly predicted by leadership factors, accounting for 42.4% of the variance. This suggests that leadership factors play a key role in supporting mental health teams within the NHS to feel psychologically safe, whereas demographic factors may play less of a role. Whilst there is currently no other research directly with MHPs to compare these findings to, the findings are partially supported by research into PS in physical healthcare teams. For example, a meta-analysis by O'Donovan [(54)] identified that leadership factors such as leadership support, behavioural integrity, change-oriented behaviours and inclusive leadership, were predictors of PS within a range of healthcare settings (including hospital and community settings). This fits in with the theory of LMX, providing evidence for the importance of high-quality leadership in supporting team members within the MHP workforce, as well as expanding the evidence in relation to PS as a positive organisational outcome within the NHS.

Interestingly, ROB was the only leadership factor that was independently associated with PS, indicating that how supported staff feel by their managers was the most important factor in them feeling psychologically safe. Given that previous research has found both manager BI [(1)] and IL [(55)] to

be positively associated with PS in physical healthcare settings, these results were unexpected. However, it may be that there is no direct relationship between these factors, and that these relationships are moderated by other facts (such as trust in leadership) as seen in other industries [56]. Alternatively, given the relational and emotional focus of work within mental health settings, having leadership that is responsive and focused on fostering positive, supportive relationships, may be especially important in mental health services, comparative to physical health services.

Hypotheses 2 & 3

Findings suggested no significant correlations between AA style and PS scores, or AA style and leadership factors. This was surprising, as team member attachment style has previously been related to feelings of psychological safety [37], and LMX theory focuses on the importance of the relational security of the leader-team member relationship [35]. However, we know that attachment not only changes over time, but can be much more variable in adult relationships and contexts [55]. It may therefore be that for our sample, AA style does not impact on their workplace relationships in relation to PS specifically. This would fit with some of the wider literature, for example a meta-analysis has found that results of research specifically into follower (or in this context, team member) attachment style are relatively inconsistent [57]. This was particularly the case for secure and avoidant attachment styles, however there was slightly less conflicting evidence in relation to anxious attachment, which is in keeping with the slightly stronger correlation with IL.

In addition to this, AA was considered an 'individual factor' in relation to PS (that is to say, it is something that the individual brings with them to work and their relationships). Considering this, along with the demographic factors identified within the study, it might be that individual factors are less able to predict PS than team or organisational level factors within mental health teams. This would need further research before comparisons could be drawn, with research in physical healthcare setting providing mixed evidence on the role of individual factors [54].

Another consideration is the differences in sample demographics, with the gender split in research into AA and LMX specifically having a much more balanced split between male and female genders [58] in comparison to our study. It may therefore be that gender has an impact within this relationship, however this was not picked up within the present study due to the sample being overwhelmingly female.

Clinical Implications

The present study has shown important relationships between PS and leadership factors in NHS MHPs, as well as identifying relationships from other areas (such as individual factors, and AA style), that may not be as relevant in MHC settings.

Using LMX as a framework to understand these findings, we can see that management relationships with their staff team are important in supporting team members to feel safe within their workplace. The present study found that managers scored highly in a range of positive management traits, a finding which mirrors the NHS Staff Survey [(7)], where the 'compassionate leadership' sub-score was highest in trusts categorised as 'Mental Health & Learning Disability', or 'Mental Health, Learning Disability and Community'. This highlights these positive leadership traits as being a positive resource within mental health staff teams. However, the same survey also found that 8.7% of staff also reported at least one incident of harassment, bullying or abuse from managers in the last 12 months [(7)], indicating that there is still the potential to improve in the area.

One way of doing this is to ensure that managers are able to feel supported by their own, higher management, and that positive leadership practises are occurring at all levels of the organisation. Whilst NHS England has attempted to encourage this on a national level, through the NHS Leadership Academy, the local offerings are more likely to be dependent on resources available within the NHS Trust. Therefore, other options for educating leaders on antecedents for PS and the potential benefits of PS could be looked into, such as time at local trust inductions that most staff are required to engage in as part of their employment.

Other options may include the development of positive working relationships between local NHS staff, local Integrated Care Boards (ICBs; formerly Clinical Commissioning Groups) and Very Senior Management (VSM) within trusts. With ICBs being responsible for the measuring and holding services accountable for their performance, increased communication with 'on the ground' staff may provide them with more of an understanding of the realities of working in the challenging environments and situations that MHPs can find themselves in, and allowing service managers/leaders opportunities to feel supported themselves by VSM. For example, a recent Independent Review has highlighted the impact of poor and disjointed leadership at different levels (including at Board, Executive and Senior levels) as being a key factor in a reduction of care standards within the trust, and the development of a psychologically unsafe culture [(59)].

Limitations

One of the limitations within the study is the high non-completion rate seen. Although 154 participants completed the survey (accessing the debrief sheet), Qualtrics software showed that the initial link had been opened by 229 participants, giving a response rate of 67.2%. Whilst reduced response rates are a known difficulty within online surveys, [60] it is still unclear why those who opened the survey, or only answered some of the questions before withdrawing consent, chose not to engage. It is possible that they were simply curious about the survey, felt that they did not have time, particularly with increasing staff demands within MHC, or changed their minds about engagement half-way through. This leads to the concern, especially given the nature of the concepts being investigated, that those who felt less psychologically safe did not feel able to engage with a survey asking them about this. This might be the case particularly where there were difficult relationships with management. Similarly, those with an avoidant attachment style may choose not to engage in research questionnaires, particularly if it is about a topic them deem stressful. Although several decisions were made in consultation with NHS staff as to how to support people to engage (e.g.; recruiting via social media rather than through NHS channels, making most demographic variables nominal/group level data to reduce risk of identification), it cannot be assumed that this supported engagement for everyone.

Another issue is that participants self-selected. In addition to potentially biasing the individuals who took part in the study (e.g.; more likely to take part if having particularly strong feelings about PS, AA or leadership). In addition to this, due to wanting to keep the data as anonymous as possible, and recruitment being conducted via social media, we were relying on staff to self-identify whether or not they worked within NHS MHC settings, without any way of checking if this was the case. Although there was nothing to indicate that this specifically was an issue, we also cannot be certain that all mental health professionals were employed by the NHS. This may be especially the case as more NHS services are commissioned to private providers by the ICBs (who are themselves ran by the NHS), which may lead to confusion in who the person is employed by (i.e.; 'indirectly' vs directly employed by the NHS) [61].

Next, it is worth highlighting some of the conceptual difficulties within the leadership literature. Particularly in relation to IL, which, despite having been researched for around the last two decades, has only recently become more focused on [62]. The measure in the present study was focused on the definition of "*leaders who exhibit visibility, accessibility, and availability in their interactions with followers*" (p. 250, [45]). However, other definitions exist which focus on different aspects of inclusion, such as encouragement and appreciation for the contributions of others [16] and

justice, equity and shared decision-making [63]. Therefore, whilst IL is an area that has been investigated in the present paper, there may be aspects of this that have been missed. However, the questionnaire used, unlike other IL questionnaires, has been used and validated within healthcare samples previously to good effect. However, this remains a long-standing area of difficulty, with leadership styles often having conceptual overlap, potentially due to trying to capture complex human behaviours and processes into relatively rigid concepts [44].

An additional limitation would be the attachment measure used in the present study. The PAM aims to conceptualise an individual's general attachment style. Whilst this might be helpful, and the measure is well validated within the literature, research shows that, adult attachment styles can vary within specific relationships [64]. This may therefore explain the lack of relationship between attachment style and PS/leadership factors, as the study did not capture participant's specific attachments to their leader/manager. Although there is not currently a specific measure for measuring relationship with leaders, an adapted version of the Relationship Structures Questionnaire [64] has previously been adapted for use in supervisory relationships within the workplace [65].

Finally, due to the cross-sectional nature of the study, we cannot assume that leadership factors cause PS to be high or low. This is a long-standing difficulty in relation to cross-sectional research, however this design was still deemed appropriate given the exploratory intent behind the study.

However, despite these limitations, the present study provides a novel insight into the role that leadership factors play in relation to PS within MHC. It has also clarified that there is not an association between PS and adult attachment style, or how this might impact on team members' perceptions of leadership. The findings provide an initial, robust insight into MHPs experiences of PS within the workplace and provide evidence for the value of exploration in the future.

Future Research

Future research may build upon the present study in a number of ways. Firstly, replicating this research using leadership factors that might not have been accounted for in the present study would help to give a clearer picture as to whether leadership can provide any more predictive ability in relation to PS. In addition to this, looking at other variables that have been found to act as antecedents for PS at team level (e.g.; relationships with peers) and organisational level (such as organisational culture) within physical healthcare can provide understanding as to whether PS is similarly impacted within these two settings. Focusing on the NHS MHP workforce will also be key at

the organisational level, given the influence that the politics of the country may have on this, in comparison to private healthcare organisations. Similarly, research into outcomes of PS, specifically within NHS MHC settings would also provide evidence in the utility of encouraging a psychologically safe work environment within mental health settings.

Replication or similar studies may also want to use measures that are specific to the workplace relationship, as previously mentioned. This might fill in a further gap, in addition to making the research more focused within the workplace environment. This will address one of the limitations discussed previously, but also provide more context around potential mechanisms for how leadership impacts on PS.

Following on from this, future research may benefit from focusing on the mechanisms by which PS is impacted by leadership factors. For example, if this in relation to relationship-specific attachment style, or if leadership styles impact upon staff's understanding of an organisation's culture (specifically lack of blame culture), or the trust placed on staff members to act autonomously. Longitudinal research may be helpful for this, and will also help to provide evidence of causality between these factors and PS (for example, looking at whether PS levels change when specific leadership behaviours/styles are introduced). This will also provide more clinical utility to the present findings, giving a stronger evidence base and more concrete (rather than abstract) examples of how services can increase PS within their teams.

Another potential option for building on the present study would be to look across different settings. Although collected as part of the demographic data, it was outside the scope of the present study to look at this as a potential antecedent. However, looking at whether PS varies between client group (e.g.; child/adolescent, adults or older adults) or based on setting (e.g.; community/outpatient, inpatient, IAPT, etc) may provide further insight into PS within NHS MHPs, as well as potentially providing evidence for whether targeted interventions are required based on where and who particular teams work with.

Finally, focus on how leadership styles are conceptualised and/or measured may help to bridge some of the gap between theory and practise that may occur within leadership. For example, the most recent NHS Staff Survey used a 4 item measure to measure compassionate leadership in relation to staff member's immediate line manager. However, this is impacted by the lack of conceptual clarity within the literature and the use of a non-validated measure. It is also not clear why compassionate leadership is being measured whereas other positive aspects of leadership (such as those within the present study) are not. Bridging this gap between theory and research is key in ensuring that leadership, similarly to clinical practises, are evidence-based.

Conclusions

The present study has provided the first quantitative research into PS specifically in NHS MHPs. This specific cohort of professionals work in emotive, interpersonally risky environments with challenges occurring at a range of levels, from political and national, all the way down to individual staff members. The present research has shown that, despite this, staff feel relatively psychologically safe, and that this is (in part, at least) predicted by leadership that are open, available/accessible, relationally focused and act with integrity. The leader-team member relationship is therefore important in supporting staff to feel safe to make mistakes and learn from experiences, improving quality of care provided to service users, a key area of focus following independent enquiries into patient care. Although there is limited research into predictors or outcomes of PS specifically within this cohort, this is an area for future research, rather than generalising results from physical healthcare. This will ensure that staff are supported to reach their full potential within the workplace.

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Tables and Figures

Table 1; Descriptive Statistics and Cronbach's Alpha Scores for Study Variables

Variable	Mean (*SD*)	Cronbach's Alpha (α)
Psychological Safety	5.05 (*1.12*)	.81
Adult Attachment – Anxiety	1.97 (*.67*)	.88
Adult Attachment – Avoidance	2.54 (*.58*)	.73
Leadership Behavioural Integrity	3.57 (*1.02*)	.97
Relations Oriented Behaviours	5.30 (*1.40*)	.94
Inclusive Leadership	3.52 (*1.07*)	.97

Table 2; Correlation Coefficients amongst Study Variables

Variables	1	2	3	4	5	6
1. PS	---					
2. AA Anxiety	.098	---				
3. AA Avoidance	.083	**.444****	---			
4. LBI	**.600****	.060	.050	---		
5. ROB	**.654****	.068	.081	**.834****	---	
6. IL	**.550****	.152	.000	**.790****	**.823****	---

*Note; ** p < .001, PS = Psychological Safety, AA = Adult Attachment, LBI = Leadership Behavioural Integrity, ROB = Relations Oriented Behaviours, IL = Inclusive Leadership*

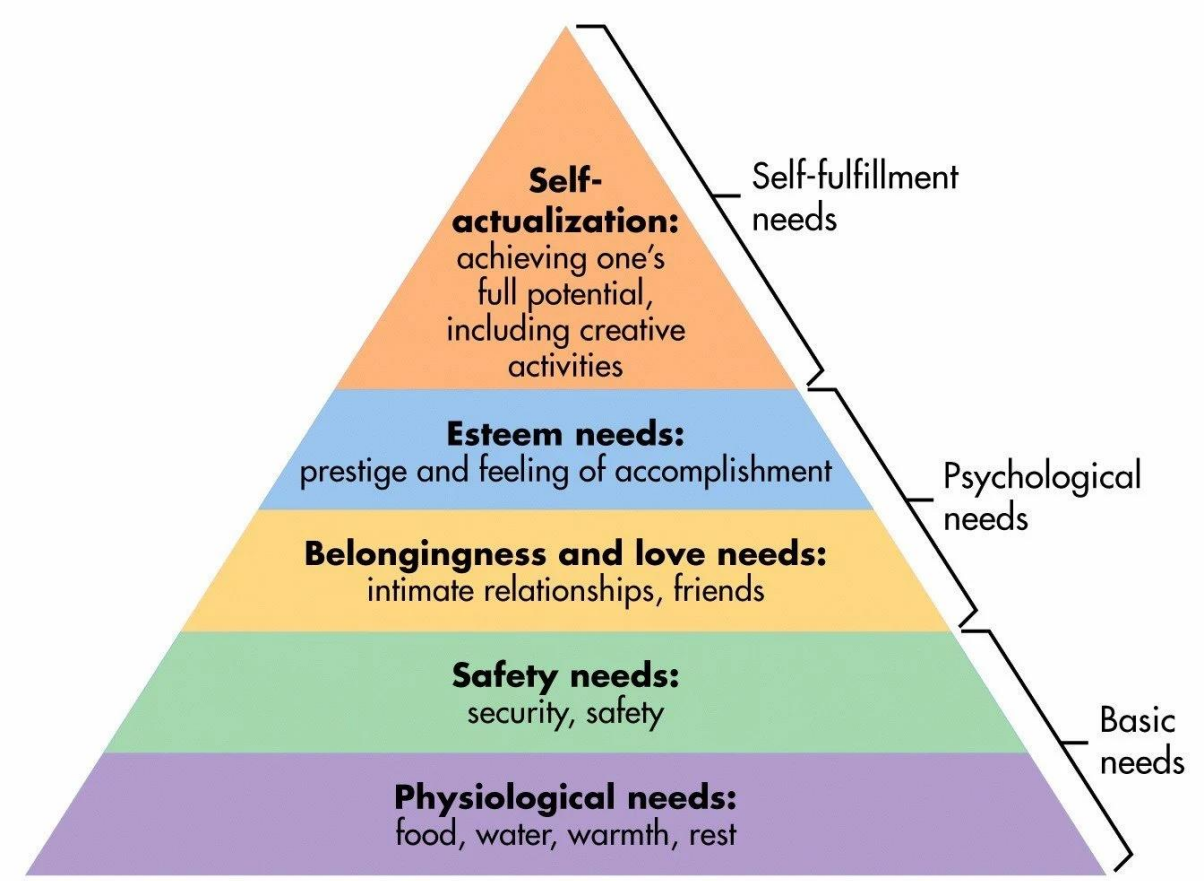
Table 3; Multiple Regression Results

		B	95% CI for *B*		*SE B*	β	R^2	ΔR^2
			LL	*UL*				
Model							.437	**.424****
	Constant	.243	.196	.290	.024			
	LBI	.169	-.055	.392	.113	.187		
	ROB	**.382****	.183	.581	.101	.514		
	IL	-.017	-.223	.189	.104	-.020		

Note; Model = 'Enter' method on SPSS Statistics, B = unstandardised regression coefficient, CI = *confidence interval, LL = lower limit, UL = upper limit, SE B = standard error of the coefficient, β = standardised coefficient, R^2 = coefficient of determination, ΔR^2 = adjusted R^2, LBI = Leadership Behavioural Integrity, ROB = Relations Oriented Behaviours, IL = Inclusive Leadership.*

*** p < .001*

Figure 1; Maslow's Hierarchy of Needs (adapted from Maslow, 1943)



Appendices

Appendix I; Submission Guidelines for International Journal of Mental Health Systems

Research article

Criteria

Research articles are reports of data from original research.

International Journal of Mental Health Systems strongly encourages that all datasets on which the conclusions of the paper rely should be available to readers. We encourage authors to ensure that their datasets are either deposited in publicly available repositories (where available and appropriate) or presented in the main manuscript or additional supporting files whenever possible. Please see Springer Nature's information on recommended repositories. Where a widely established research community expectation for data archiving in public repositories exists, submission to a community-endorsed, public repository is mandatory. A list of data where deposition is required, with the appropriate repositories, can be found on the Editorial Policies Page.

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Preparing your manuscript

The information below details the section headings that you should include in your manuscript and what information should be within each section.

Please note that your manuscript must include a 'Declarations' section including all of the subheadings (please see below for more information).

Title page

The title page should:

- present a title that includes, if appropriate, the study design e.g.:
  - "A versus B in the treatment of C: a randomized controlled trial", "X is a risk factor for Y: a case control study", "What is the impact of factor X on subject Y: A systematic review"
  - or for non-clinical or non-research studies a description of what the article reports
- list the full names and institutional addresses for all authors
  - if a collaboration group should be listed as an author, please list the Group name as an author. If you would like the names of the individual members of the Group to be searchable through their individual PubMed records, please include this information in the “Acknowledgements” section in accordance with the instructions below
  - Large Language Models (LLMs), such as ChatGPT, do not currently satisfy our authorship criteria. Notably an attribution of authorship carries with it accountability for the work, which cannot be effectively applied to LLMs. Use of an LLM should be properly documented in the Methods section (and if a Methods section is not available, in a suitable alternative part) of the manuscript.
- indicate the corresponding author

Abstract

The Abstract should not exceed 350 words. Please minimize the use of abbreviations and do not cite references in the abstract. Reports of randomized controlled trials should follow the CONSORT extension for abstracts. The abstract must include the following separate sections:

- **Background:** the context and purpose of the study
- **Methods:** how the study was performed and statistical tests used

- **Results:** the main findings
- **Conclusions:** brief summary and potential implications
- **Trial registration:** If your article reports the results of a health care intervention on human participants, it must be registered in an appropriate registry and the registration number and date of registration should be stated in this section. If it was not registered prospectively (before enrollment of the first participant), you should include the words 'retrospectively registered'. See our editorial policies for more information on trial registration

Keywords

Three to ten keywords representing the main content of the article.

Background

The Background section should explain the background to the study, its aims, a summary of the existing literature and why this study was necessary or its contribution to the field.

Methods

The methods section should include:

- the aim, design and setting of the study
- the characteristics of participants or description of materials
- a clear description of all processes, interventions and comparisons. Generic drug names should generally be used. When proprietary brands are used in research, include the brand names in parentheses
- the type of statistical analysis used, including a power calculation if appropriate

Results

This should include the findings of the study including, if appropriate, results of statistical analysis which must be included either in the text or as tables and figures.

Discussion

This section should discuss the implications of the findings in context of existing research and highlight limitations of the study.

Conclusions

This should state clearly the main conclusions and provide an explanation of the importance and relevance of the study reported.

List of abbreviations

If abbreviations are used in the text they should be defined in the text at first use, and a list of abbreviations should be provided.

Declarations

All manuscripts must contain the following sections under the heading 'Declarations':

- Ethics approval and consent to participate
- Consent for publication
- Availability of data and materials
- Competing interests
- Funding
- Authors' contributions
- Acknowledgements
- Authors' information (optional)

Please see below for details on the information to be included in these sections.

If any of the sections are not relevant to your manuscript, please include the heading and write 'Not applicable' for that section.

Ethics approval and consent to participate

Manuscripts reporting studies involving human participants, human data or human tissue must:

- include a statement on ethics approval and consent (even where the need for approval was waived)

- include the name of the ethics committee that approved the study and the committee's reference number if appropriate

  Studies involving animals must include a statement on ethics approval and for experimental studies involving client-owned animals, authors must also include a statement on informed consent from the client or owner.

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If your manuscript contains any individual person's data in any form (including any individual details, images or videos), consent for publication must be obtained from that person, or in the case of children, their parent or legal guardian. All presentations of case reports must have consent for publication.

You can use your institutional consent form or our consent form if you prefer. You should not send the form to us on submission, but we may request to see a copy at any stage (including after publication).
See our editorial policies for more information on consent for publication.
If your manuscript does not contain data from any individual person, please state "Not applicable" in this section.

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All manuscripts must include an 'Availability of data and materials' statement. Data availability statements should include information on where data supporting the results reported in the article can be found including, where applicable, hyperlinks to publicly archived datasets analysed or generated during the study. By data we mean the minimal dataset that would be necessary to interpret, replicate and build upon the findings reported in the article. We recognise it is not always possible to share research data publicly, for instance when individual privacy could be compromised, and in such instances data availability should still be stated in the manuscript along with any conditions for access.

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Data availability statements can take one of the following forms (or a combination of more than one if required for multiple datasets):

- The datasets generated and/or analysed during the current study are available in the [NAME] repository, [PERSISTENT WEB LINK TO DATASETS]
- The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.
- All data generated or analysed during this study are included in this published article [and its supplementary information files].
- The datasets generated and/or analysed during the current study are not publicly available due [REASON WHY DATA ARE NOT PUBLIC] but are available from the corresponding author on reasonable request.
- Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.
- The data that support the findings of this study are available from [third party name] but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of [third party name].
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recommended by DataCite and follow journal style. Dataset identifiers including DOIs should be expressed as full URLs. For example:

Hao Z, AghaKouchak A, Nakhjiri N, Farahmand A. Global integrated drought monitoring and prediction system (GIDMaPS) data sets. figshare. 2014. http://dx.doi.org/10.6084/m9.figshare.853801
With the corresponding text in the Availability of data and materials statement:

The datasets generated during and/or analysed during the current study are available in the [NAME] repository, [PERSISTENT WEB LINK TO DATASETS].[Reference number]

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All financial and non-financial competing interests must be declared in this section.

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Please use the authors initials to refer to each authors' competing interests in this section.

If you do not have any competing interests, please state "The authors declare that they have no competing interests" in this section.

Funding

All sources of funding for the research reported should be declared. If the funder has a specific role in the conceptualization, design, data collection, analysis, decision to publish, or preparation of the manuscript, this should be declared.

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The individual contributions of authors to the manuscript should be specified in this section. Guidance and criteria for authorship can be found in our editorial policies.
Please use initials to refer to each author's contribution in this section, for example: "FC analyzed and interpreted the patient data regarding the hematological disease and the transplant. RH performed the histological examination of the kidney, and was a major contributor in writing the manuscript. All authors read and approved the final manuscript."

Acknowledgements

Please acknowledge anyone who contributed towards the article who does not meet the criteria for authorship including anyone who provided professional writing services or materials.

Authors should obtain permission to acknowledge from all those mentioned in the Acknowledgements section.

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Footnotes to the text are numbered consecutively; those to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data). Footnotes to the title or the authors of the article are not given reference symbols.

Always use footnotes instead of endnotes.

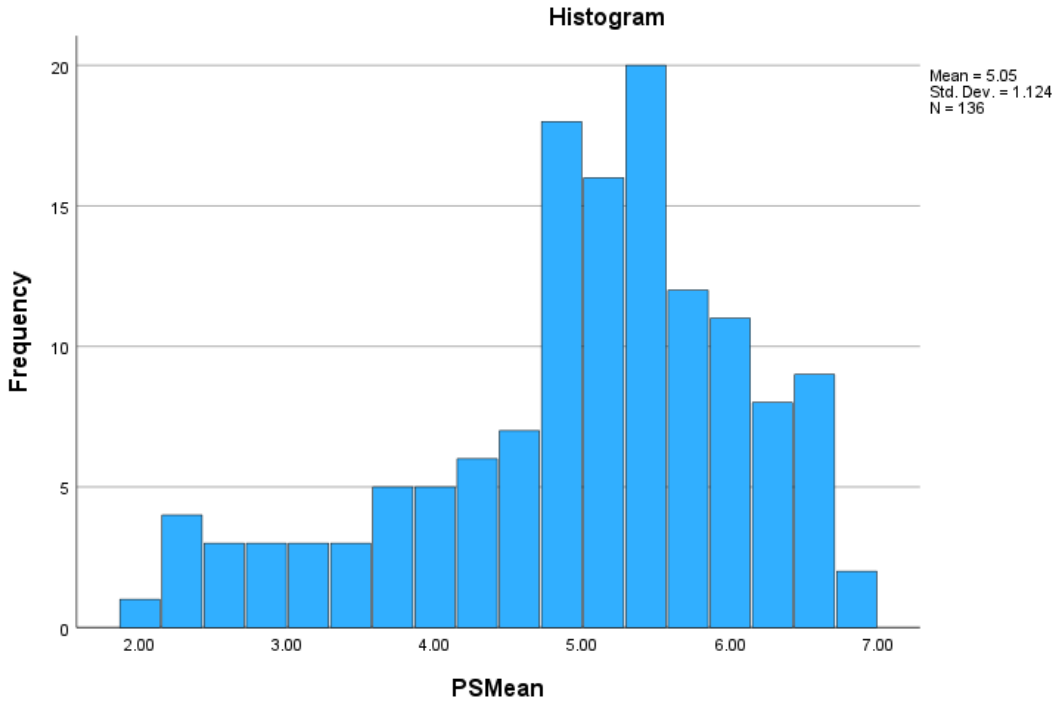
References

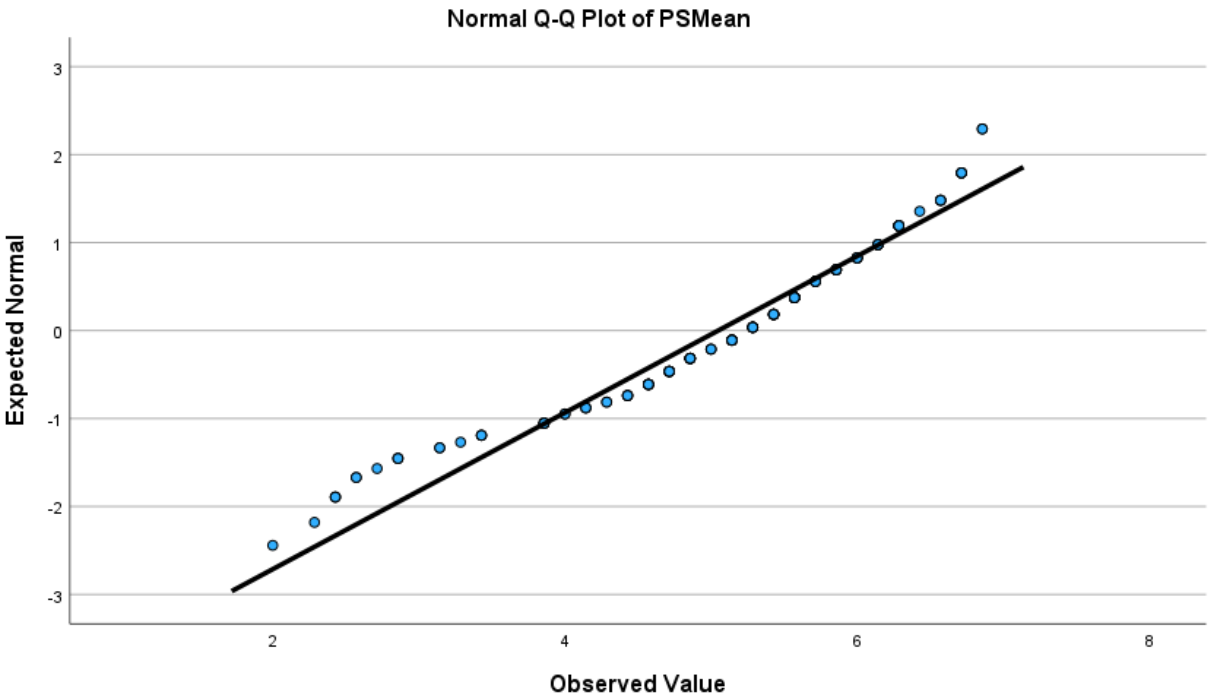
Examples of the Vancouver reference style are shown below.

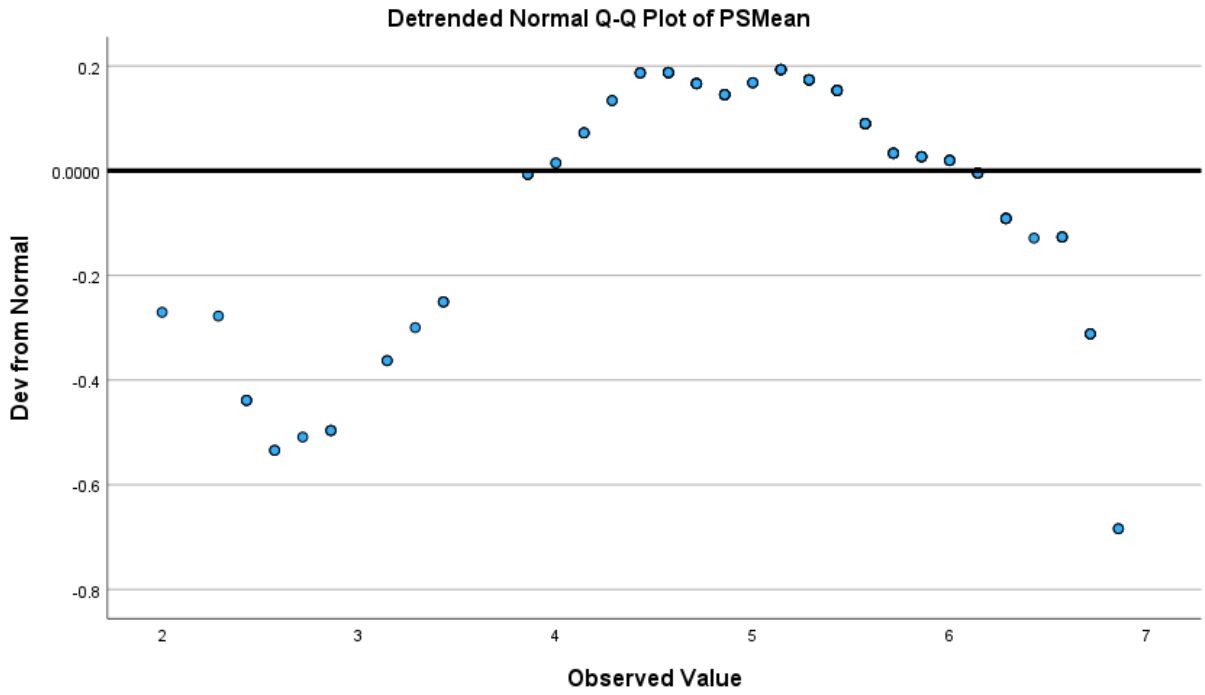
See our editorial policies for author guidance on good citation practice

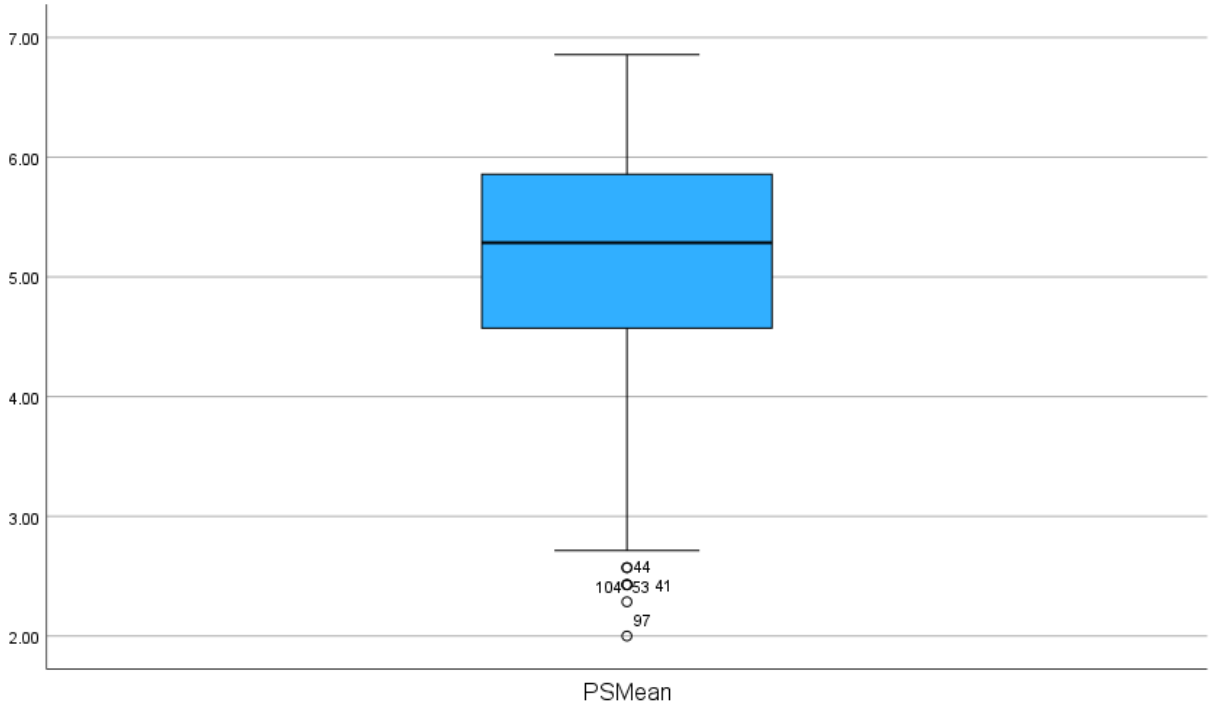
Appendix II; Pre-Transformation Box-Plots, Q-Q Plots and Histograms for each variable.

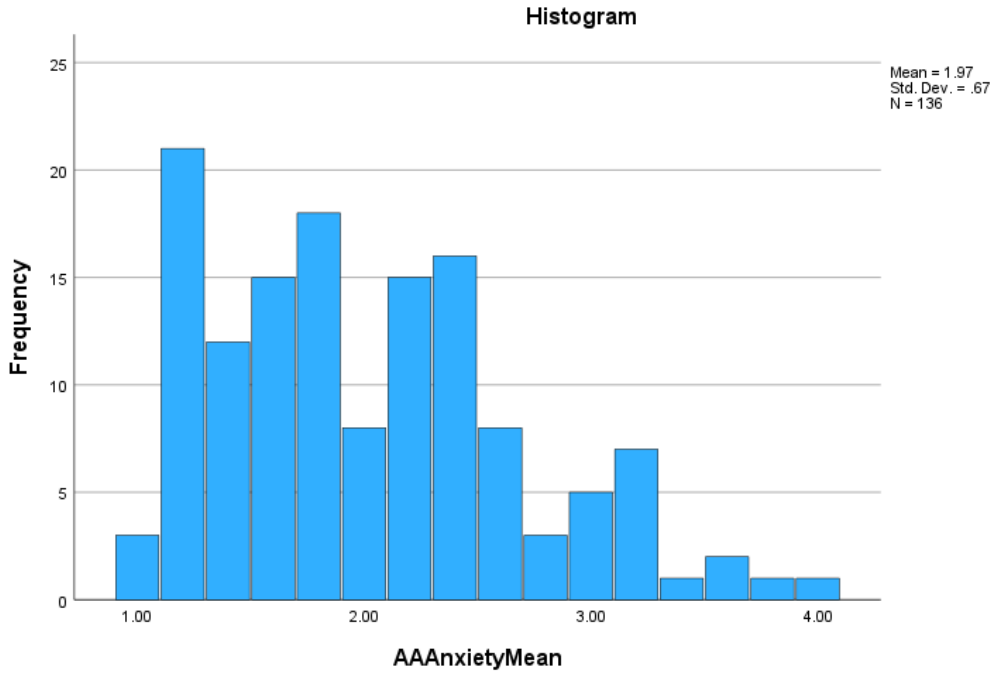
Psychological Safety

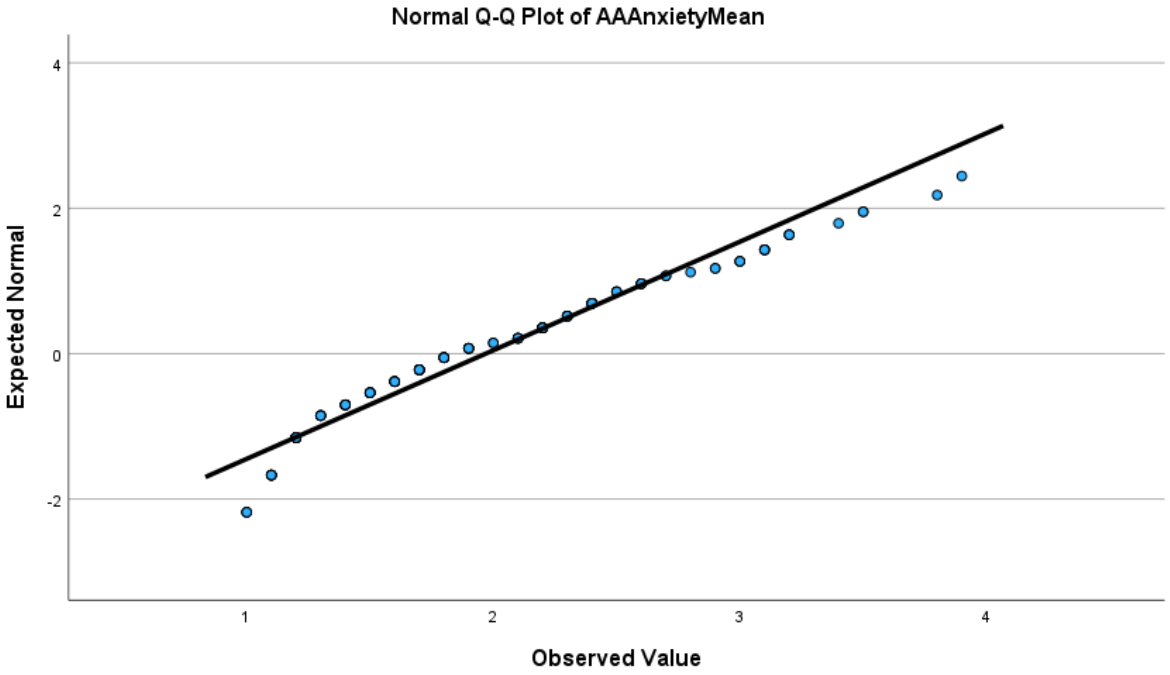


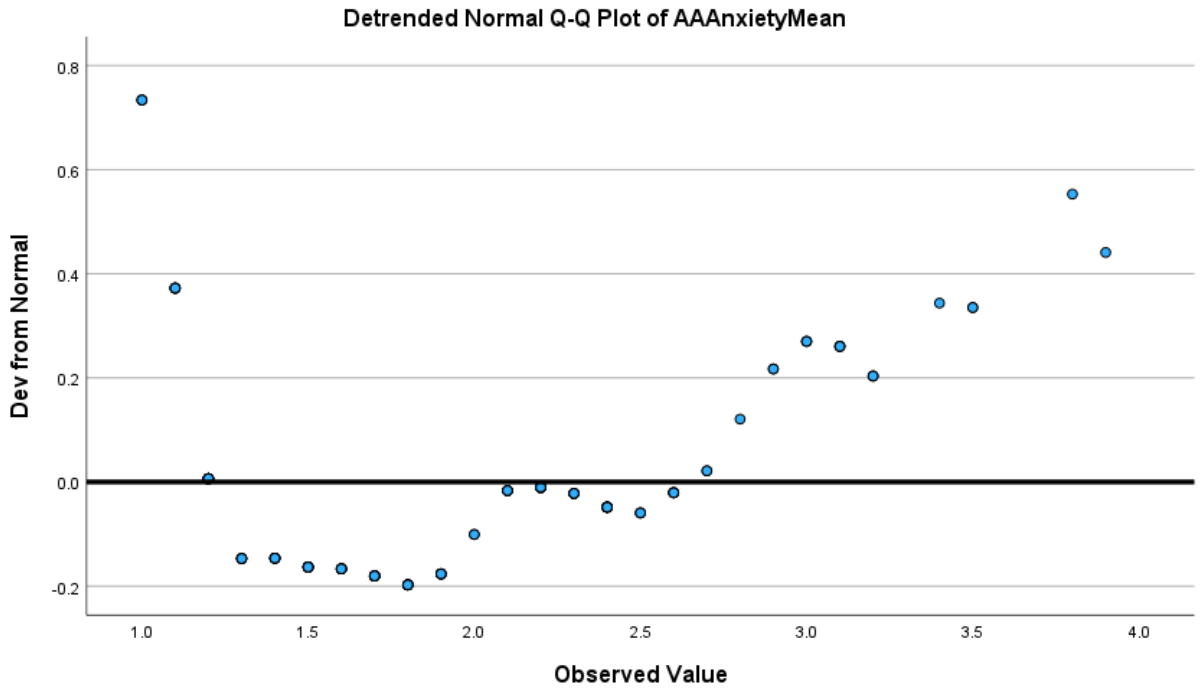


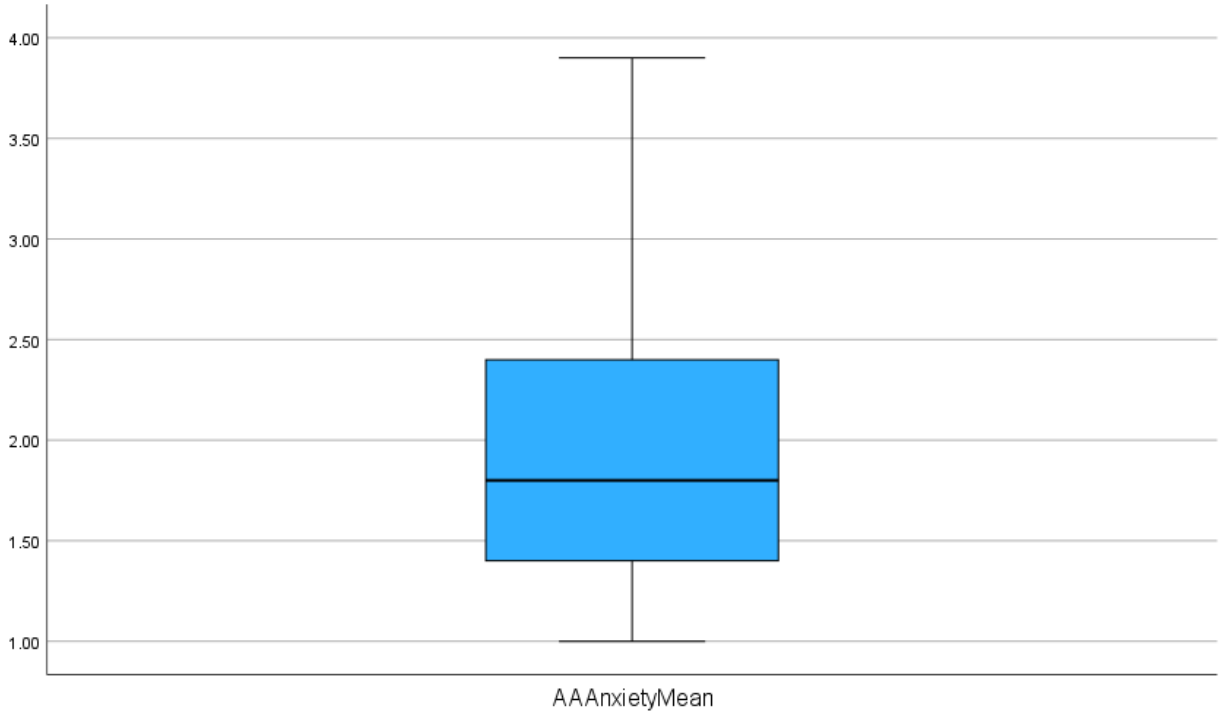

Detrended Normal Q-Q Plot of PSMean
Dev from Normal
0.2
0.0000
-0.2
-0.4
-0.6
-0.8
2
3
4
5
6
7
Observed Value


7.00
6.00
5.00
4.00
3.00
2.00
44
104
53
41
97
PSMean


Histogram
Mean = 1.97
Std. Dev. = .67
N = 136
Frequency
25
20
15
10
5
0
1.00
2.00
3.00
4.00
AAAnxietyMean

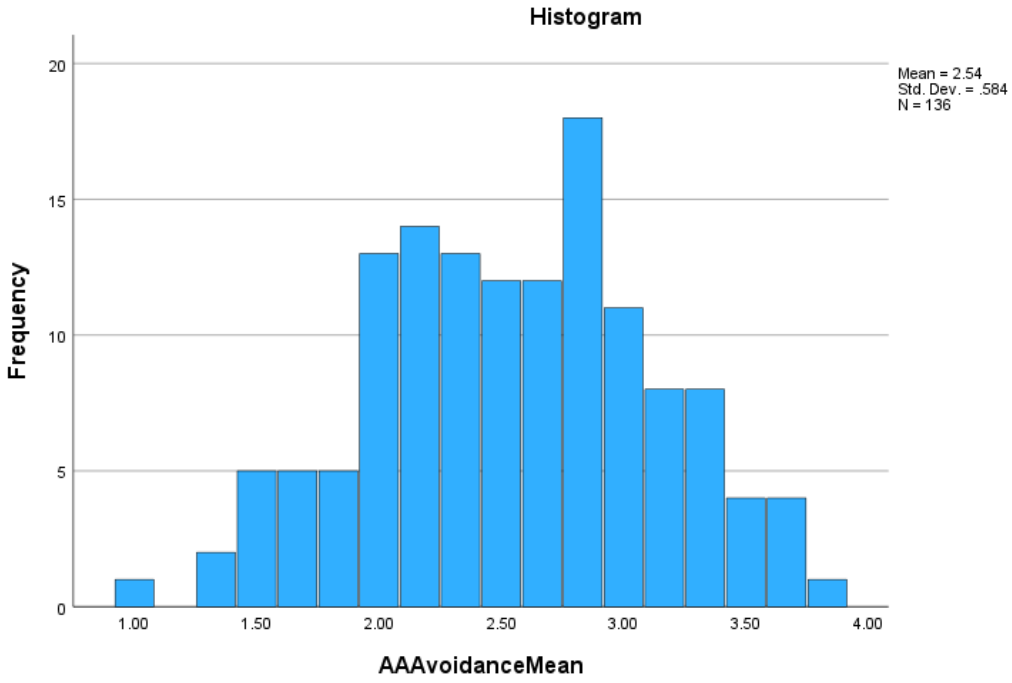

Normal Q-Q Plot of AAAnxietyMean
Expected Normal
4
2
0
-2
1
2
3
4
Observed Value

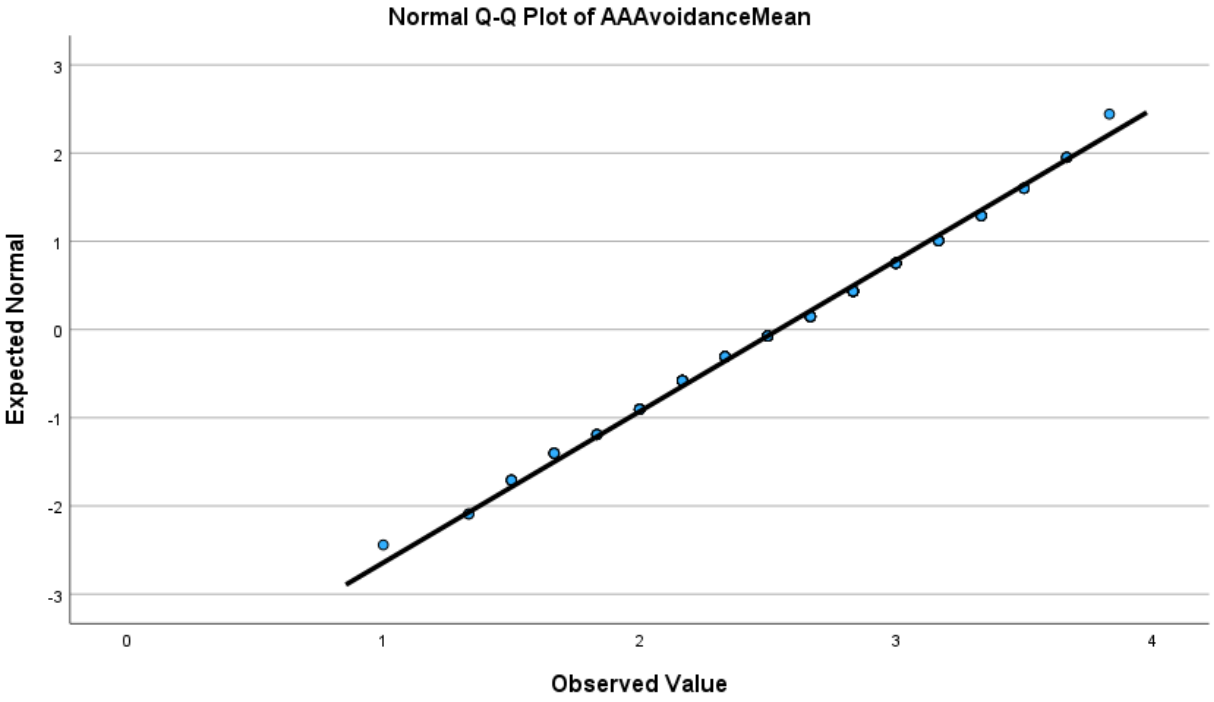

Detrended Normal Q-Q Plot of AAAnxietyMean
Dev from Normal
0.8
0.6
0.4
0.2
0.0
-0.2
1.0
1.5
2.0
2.5
3.0
3.5
4.0
Observed Value

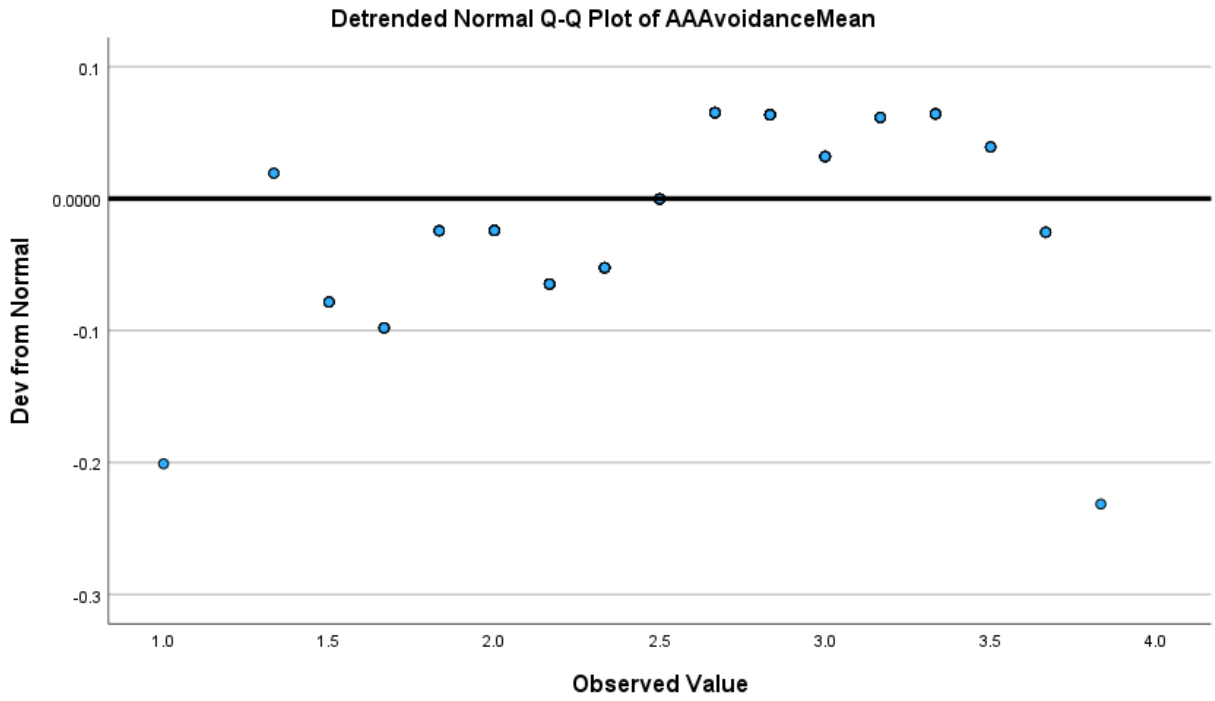

4.00
3.50
3.00
2.50
2.00
1.50
1.00
AAAnxietyMean

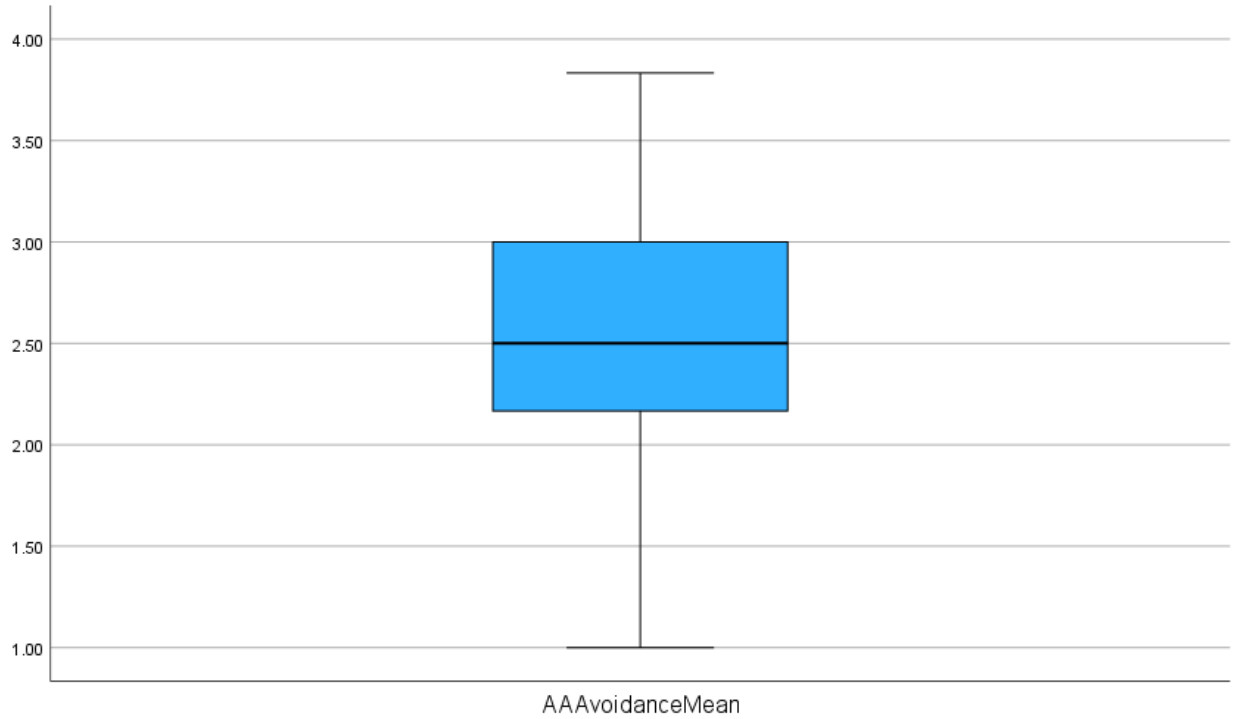
EMPIRICAL PAPER

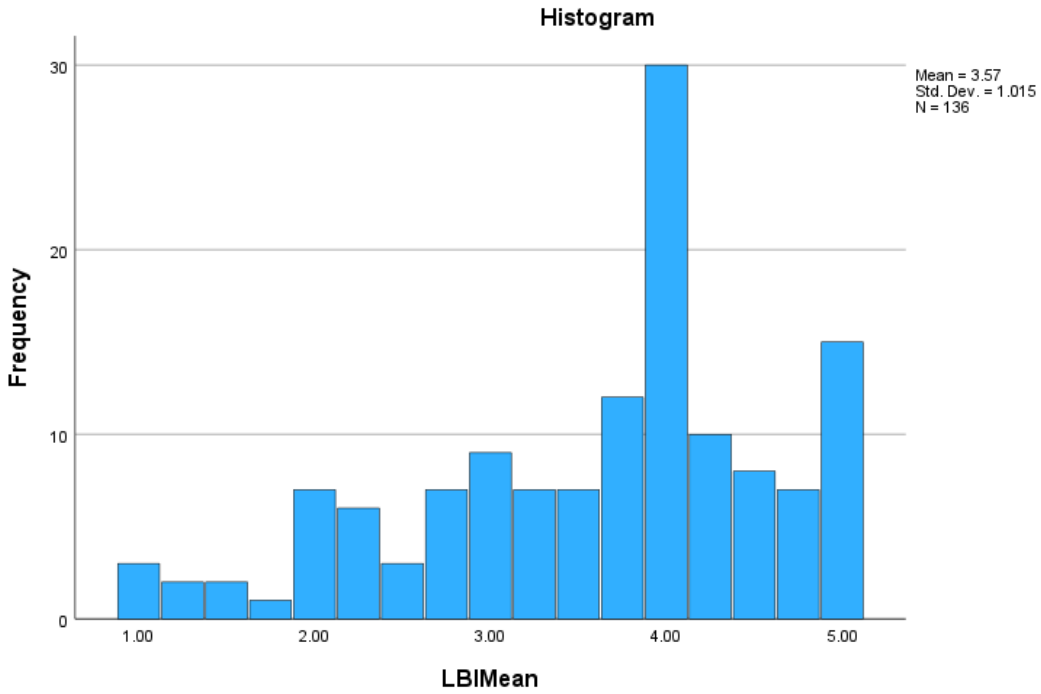
Adult Attachment – Avoidance

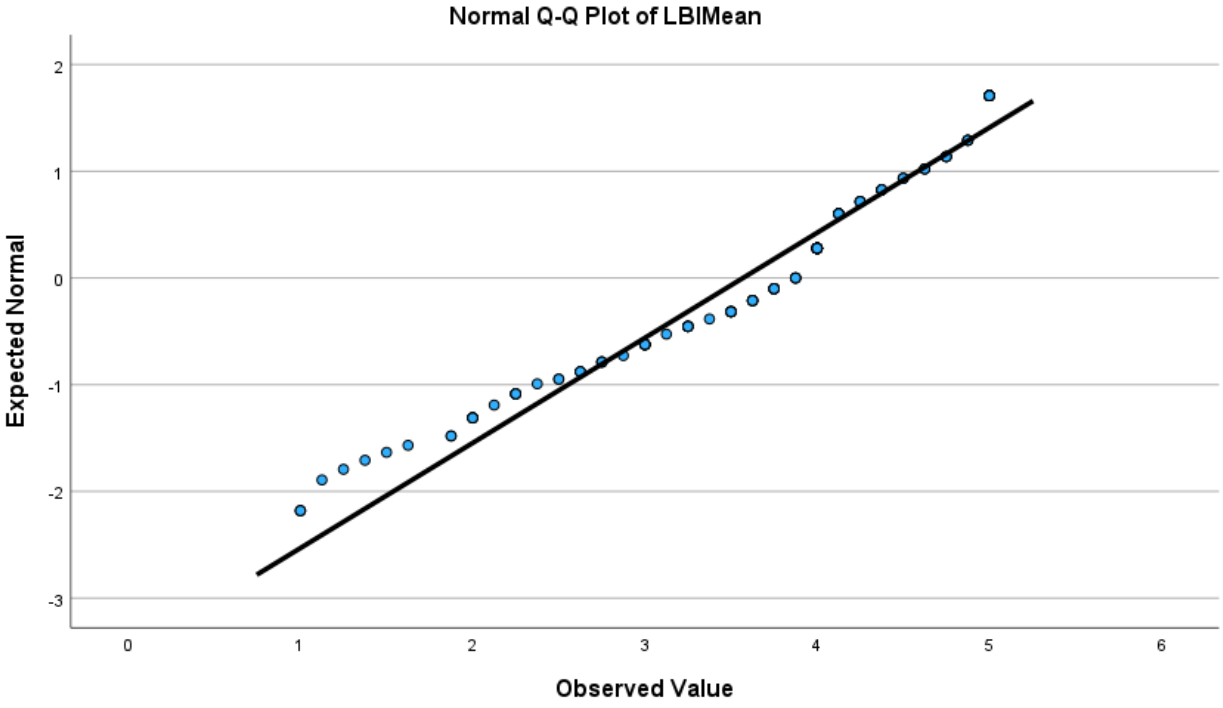


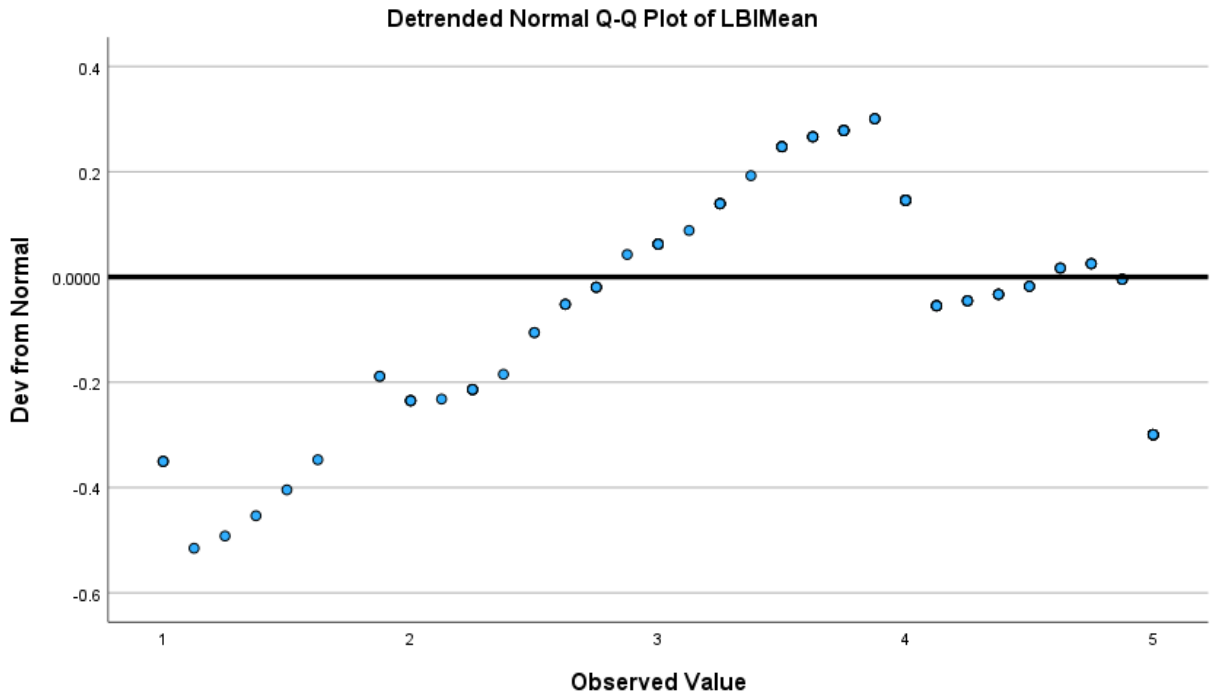


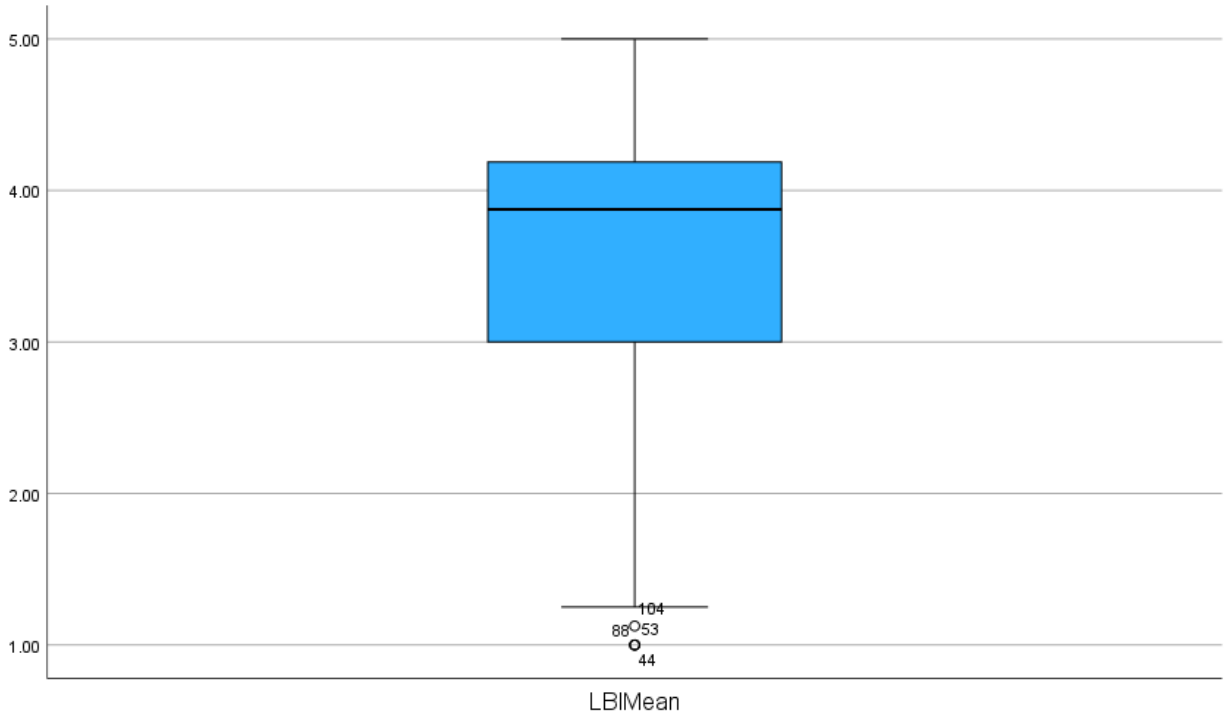

Detrended Normal Q-Q Plot of AAAvoidanceMean
Dev from Normal
0.1
0.0000
-0.1
-0.2
-0.3
1.0
1.5
2.0
2.5
3.0
3.5
4.0
Observed Value

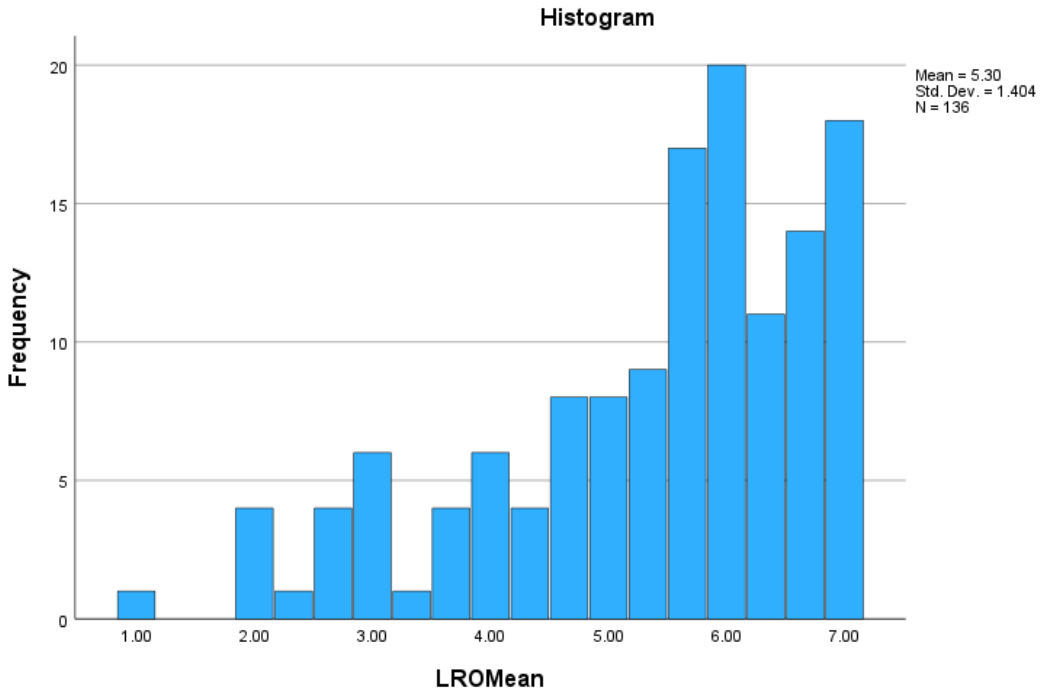

4.00
3.50
3.00
2.50
2.00
1.50
1.00
AAAvoidanceMean

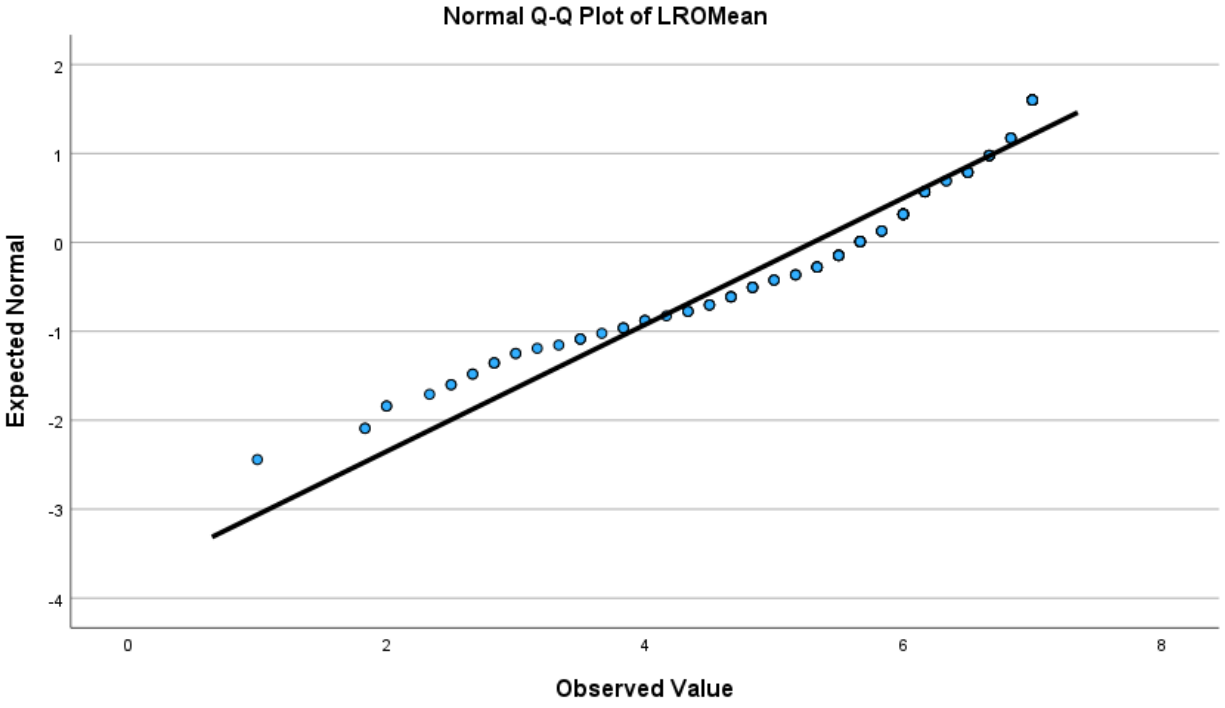

Histogram
Mean = 3.57
Std. Dev. = 1.015
N = 136
Frequency
30
20
10
0
1.00
2.00
3.00
4.00
5.00
LBIMean

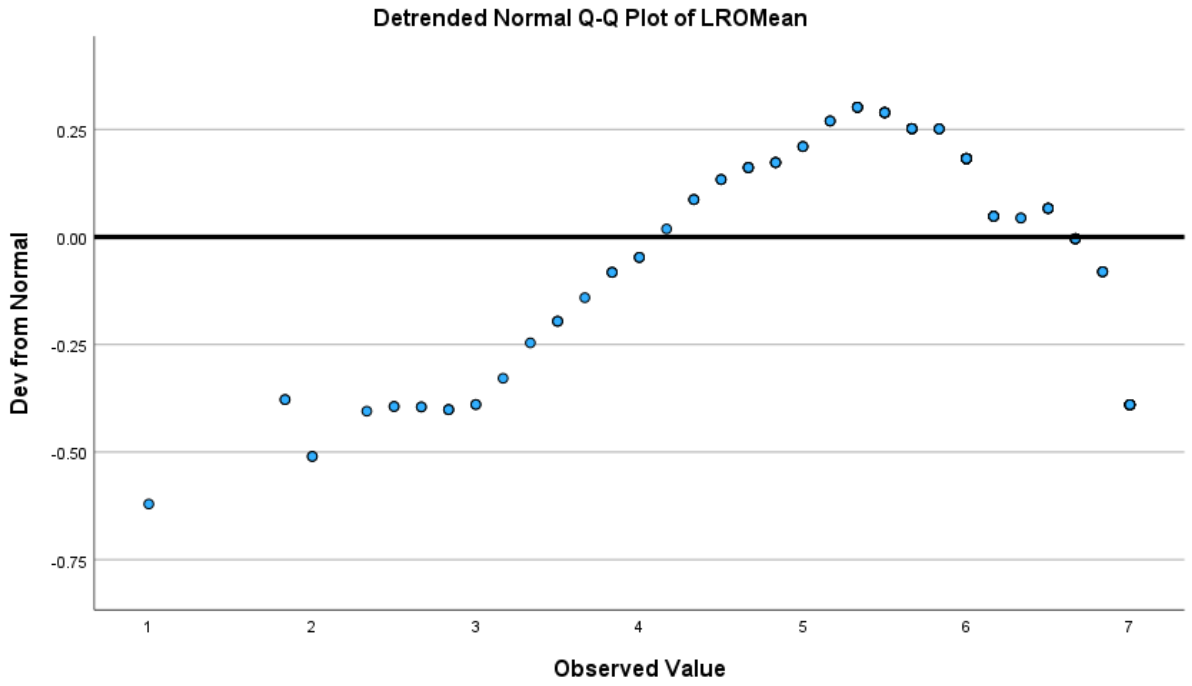

Normal Q-Q Plot of LBIMean
Expected Normal
2
1
0
-1
-2
-3
0
1
2
3
4
5
6
Observed Value

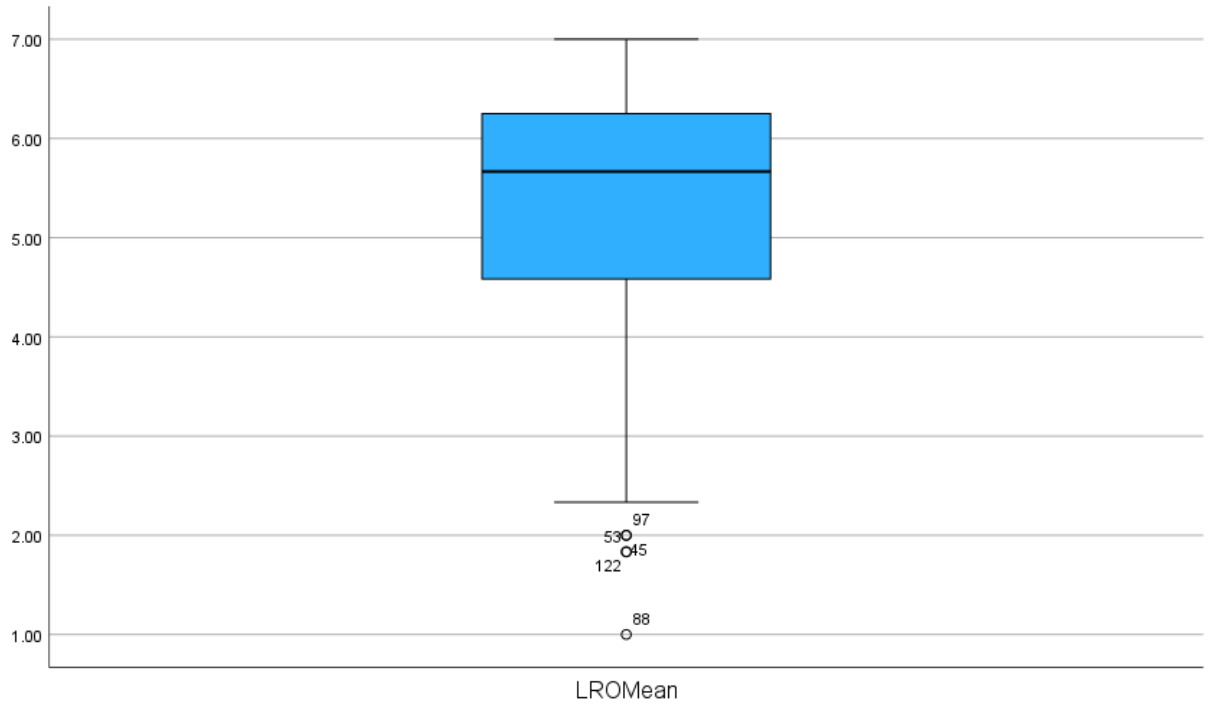

Detrended Normal Q-Q Plot of LBlMean
Dev from Normal
0.4
0.2
0.0000
-0.2
-0.4
-0.6
1
2
3
4
5
Observed Value

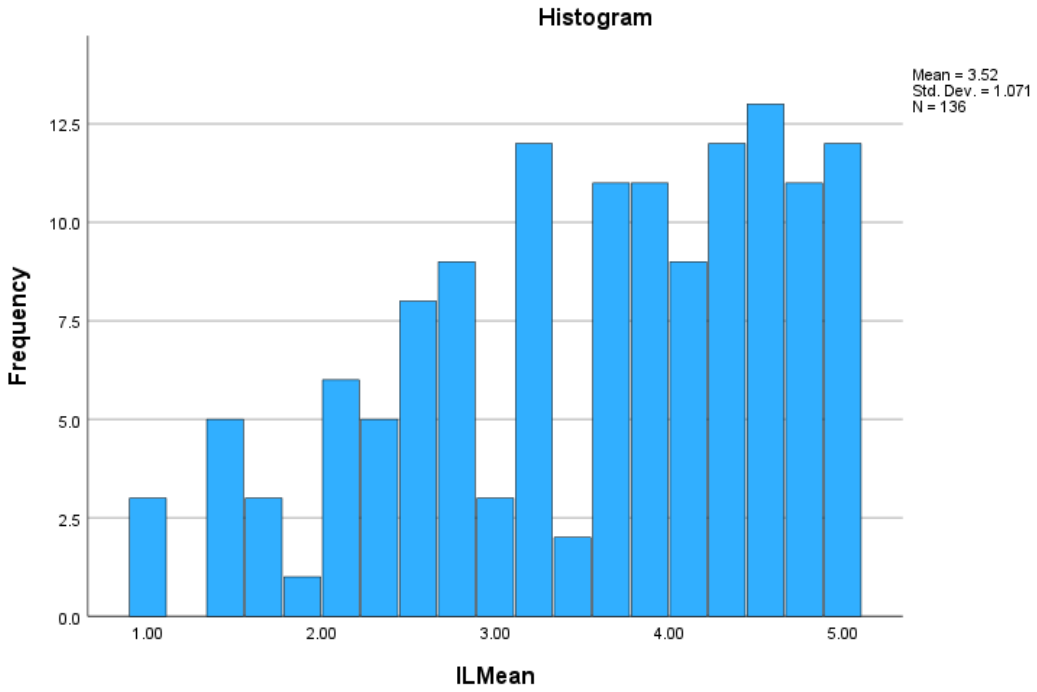

5.00
4.00
3.00
2.00
1.00
104
88
53
44
LBlMean

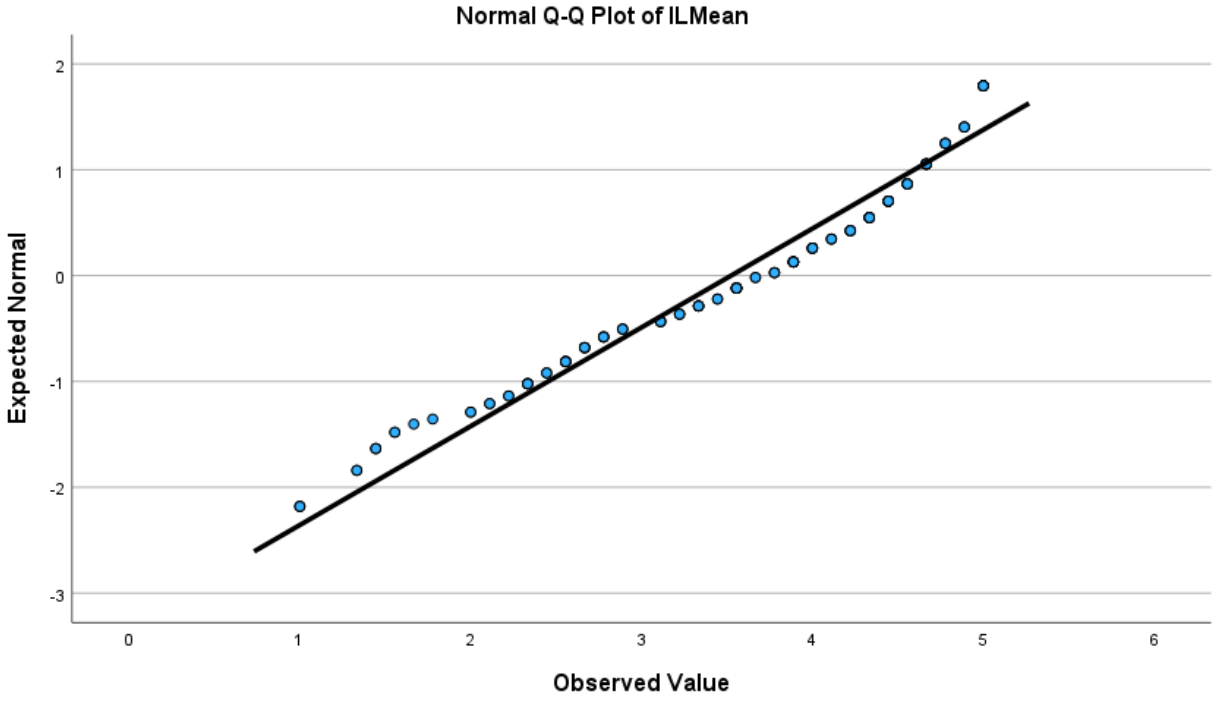

Histogram
Mean = 5.30
Std. Dev. = 1.404
N = 136
Frequency
LROMean
0
5
10
15
20
1.00
2.00
3.00
4.00
5.00
6.00
7.00

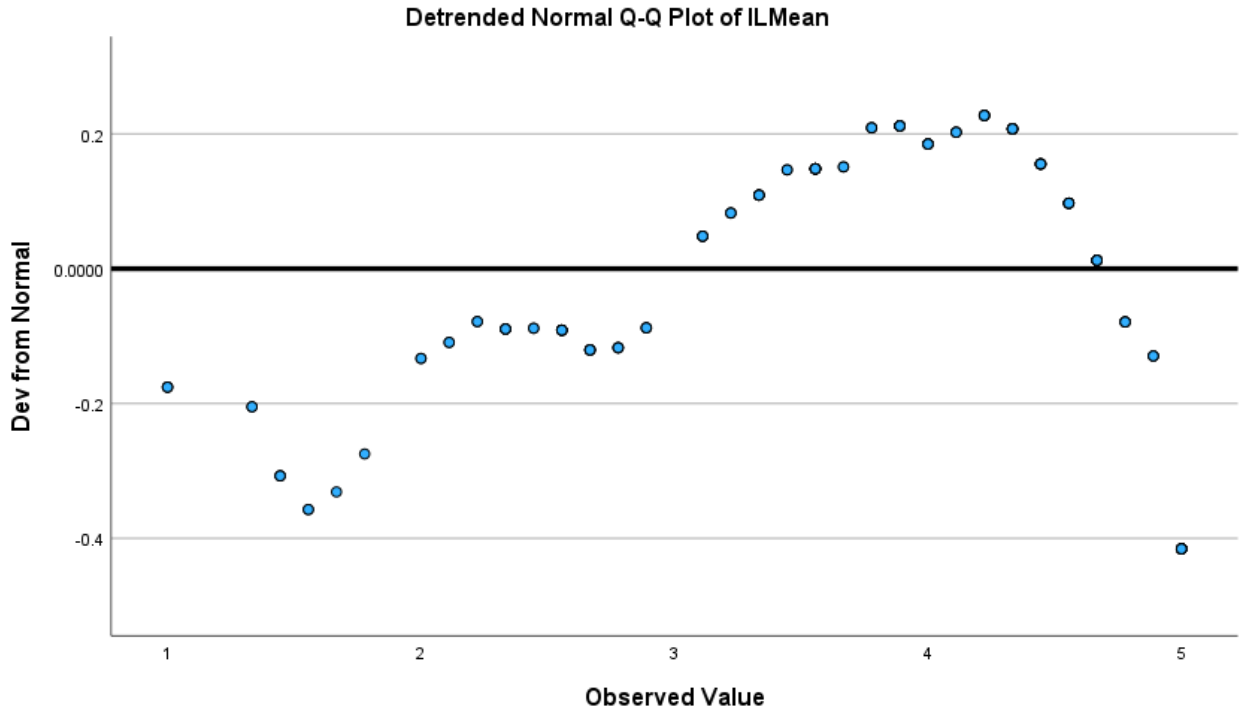

Normal Q-Q Plot of LROMean
Expected Normal
Observed Value
2
1
0
-1
-2
-3
-4
0
2
4
6
8

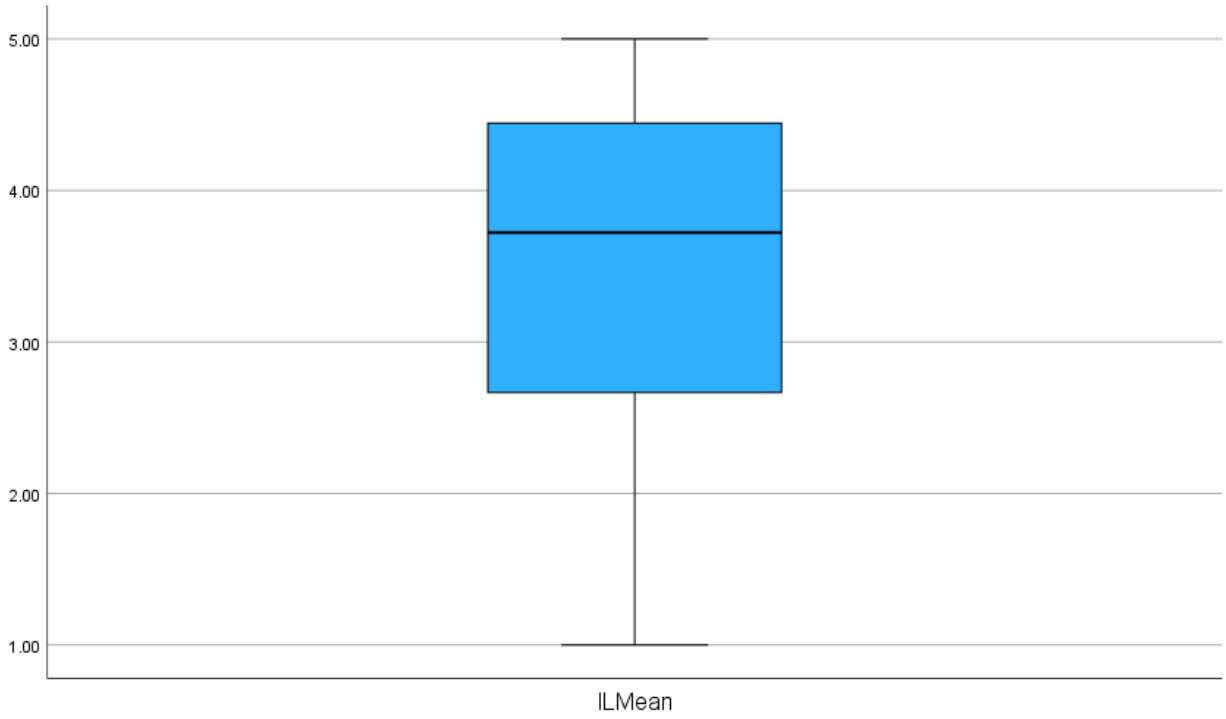

Detrended Normal Q-Q Plot of LROMean
Dev from Normal
0.25
0.00
-0.25
-0.50
-0.75
1
2
3
4
5
6
7
Observed Value


7.00
6.00
5.00
4.00
3.00
2.00
1.00
97
53
45
122
88
LROMean


Histogram
Mean = 3.52
Std. Dev. = 1.071
N = 136
Frequency
0.0
2.5
5.0
7.5
10.0
12.5
1.00
2.00
3.00
4.00
5.00
ILMean

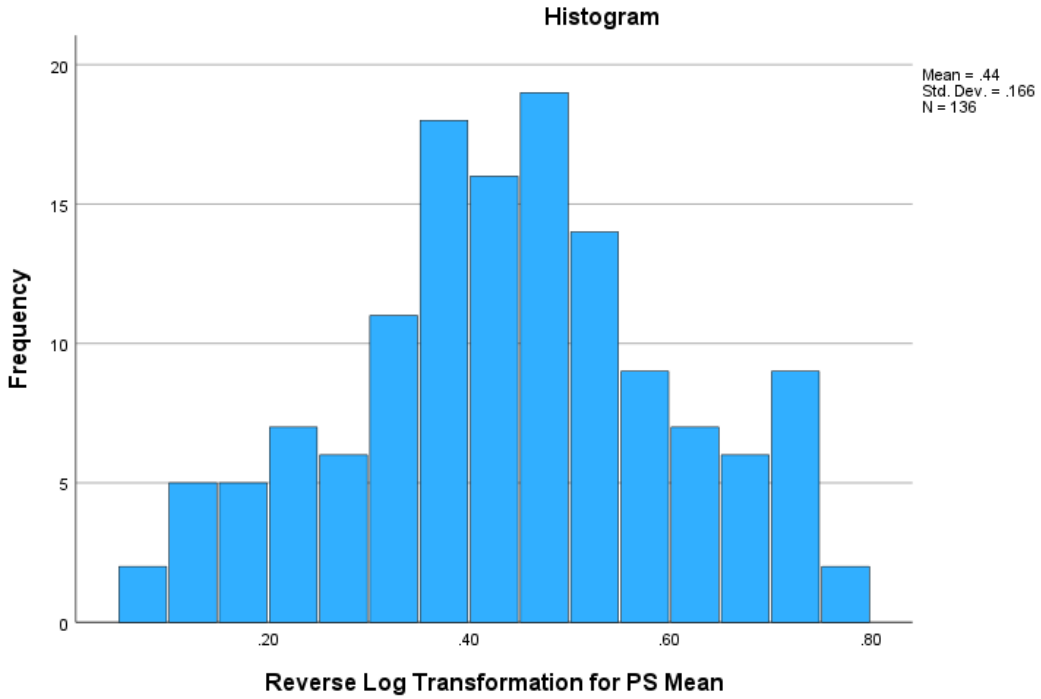

Normal Q-Q Plot of ILMean
Expected Normal
2
1
0
-1
-2
-3
0
1
2
3
4
5
6
Observed Value

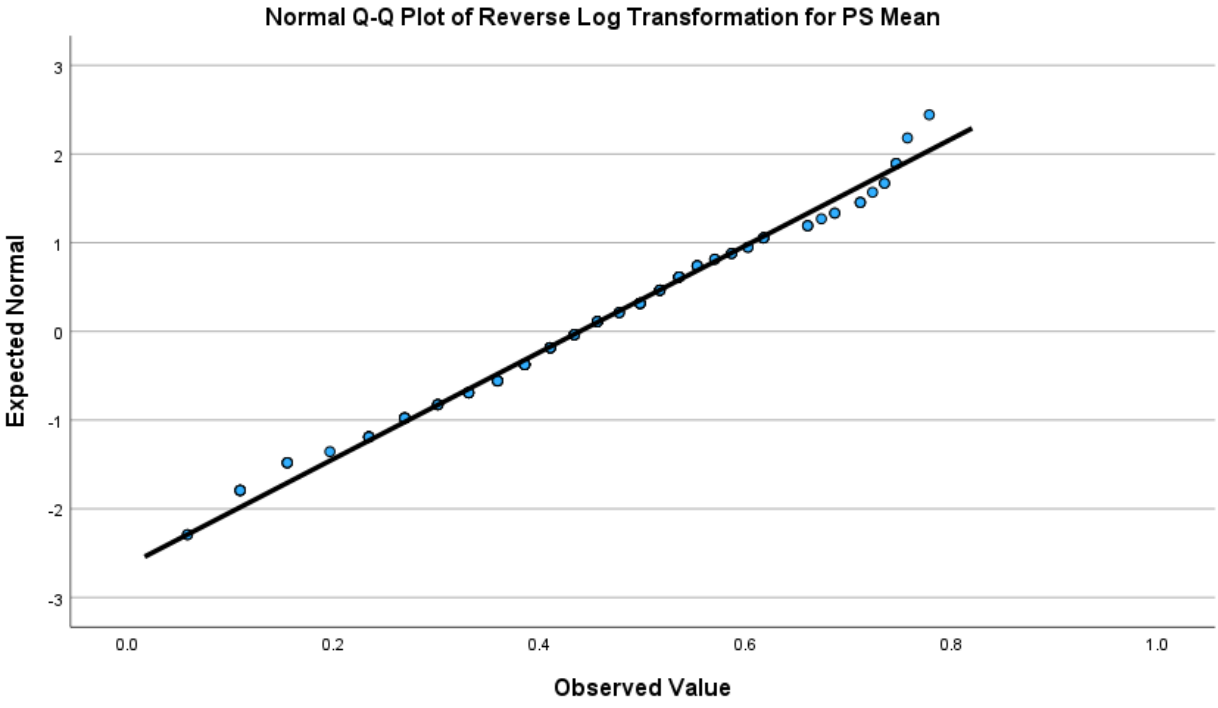

Detrended Normal Q-Q Plot of ILMean
Dev from Normal
0.2
0.0000
-0.2
-0.4
1
2
3
4
5
Observed Value

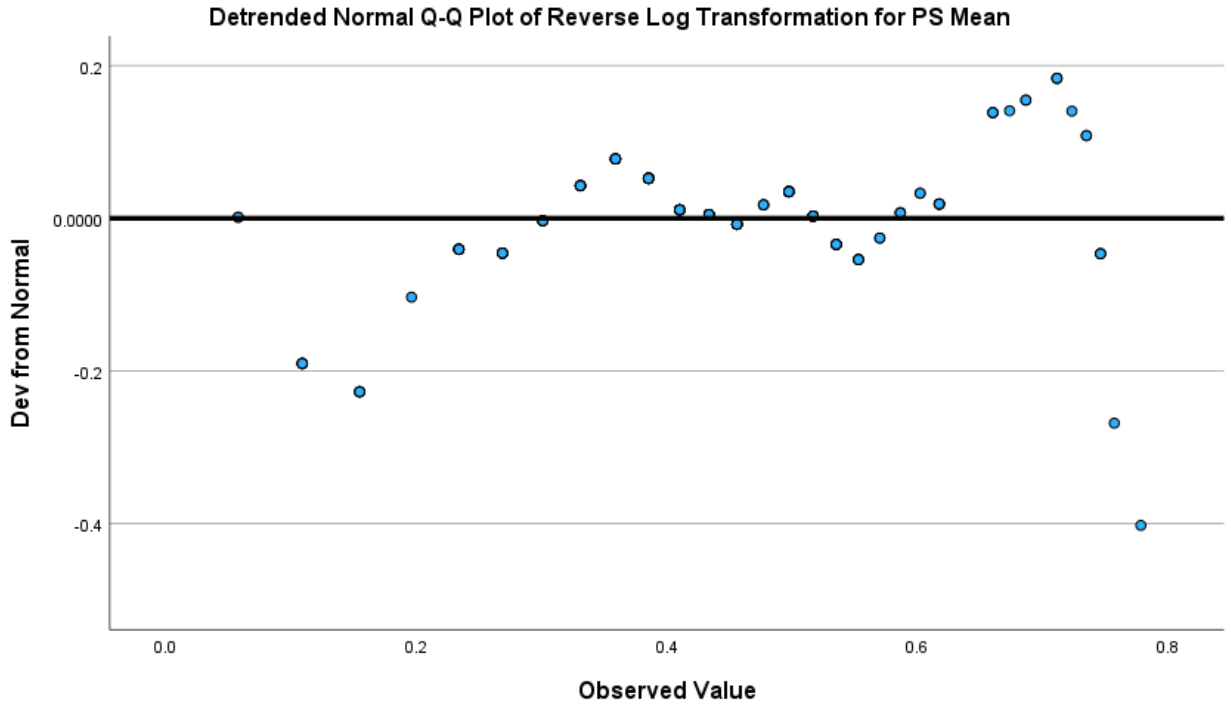

5.00
4.00
3.00
2.00
1.00
ILMean

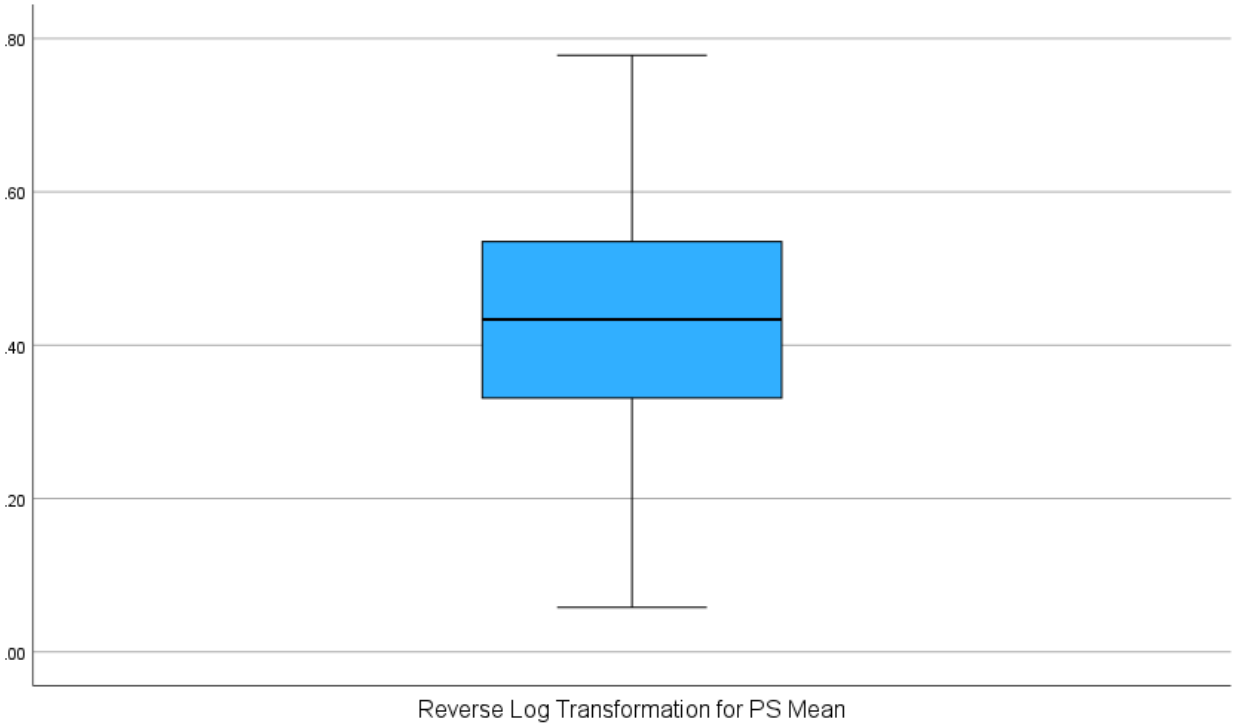
Appendix III; Post-Transformation Box-Plots, Q-Q Plots and Histograms for Transformed Variables

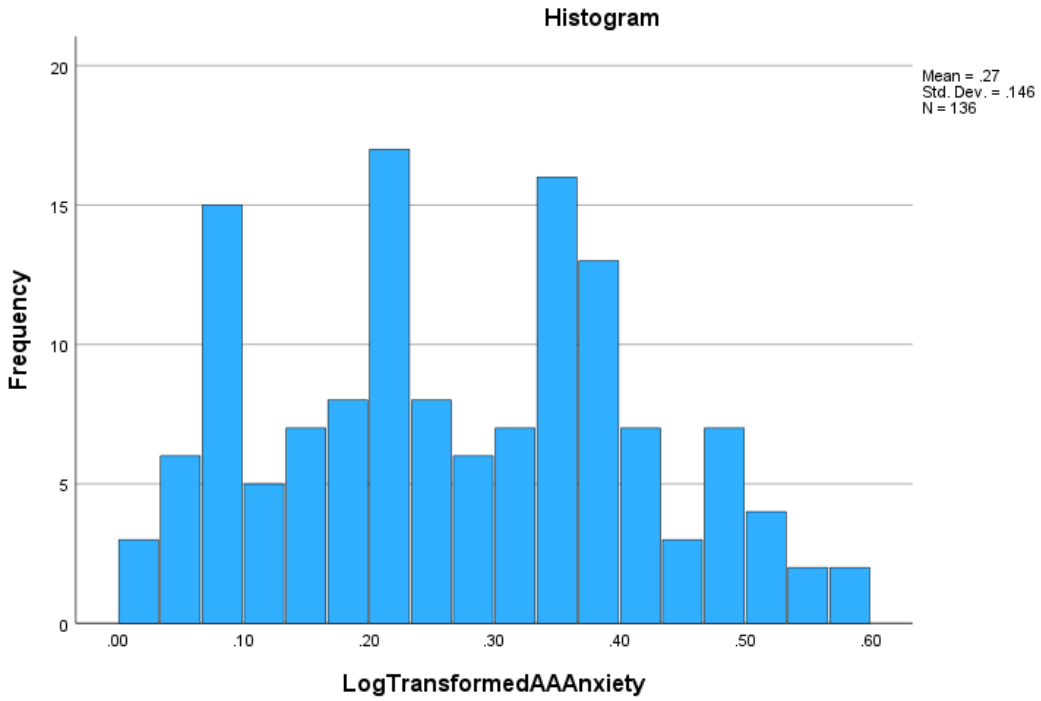
Psychological Safety

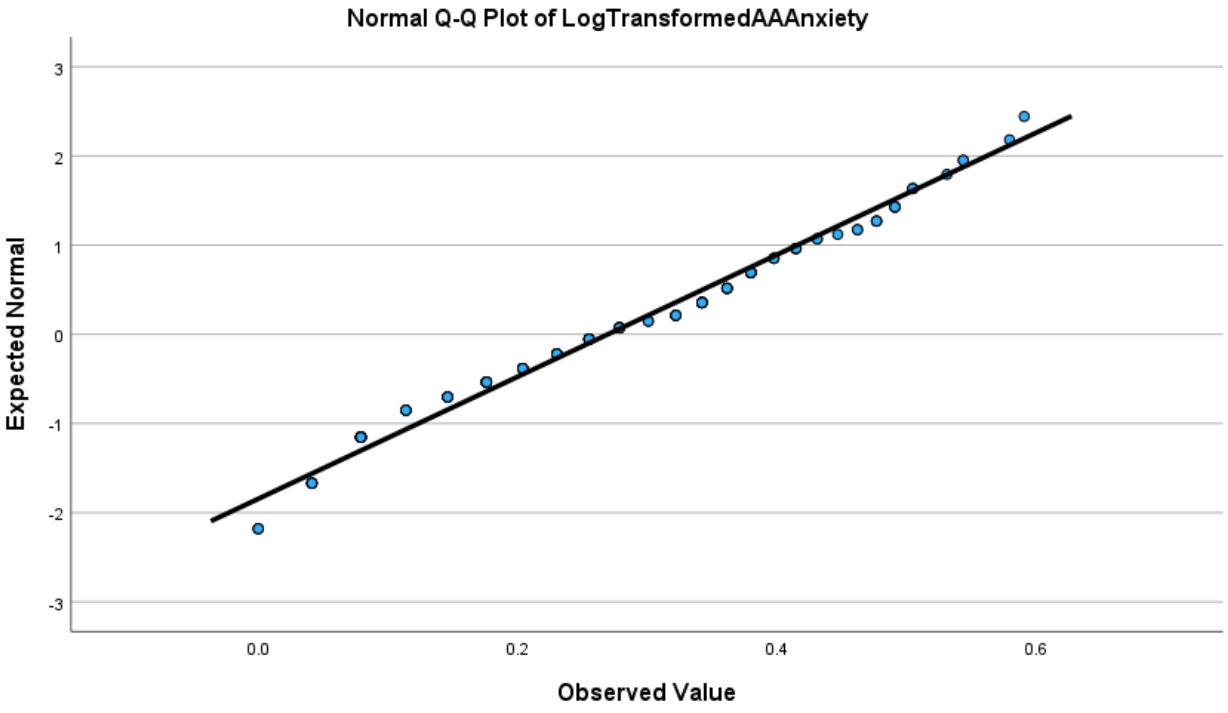


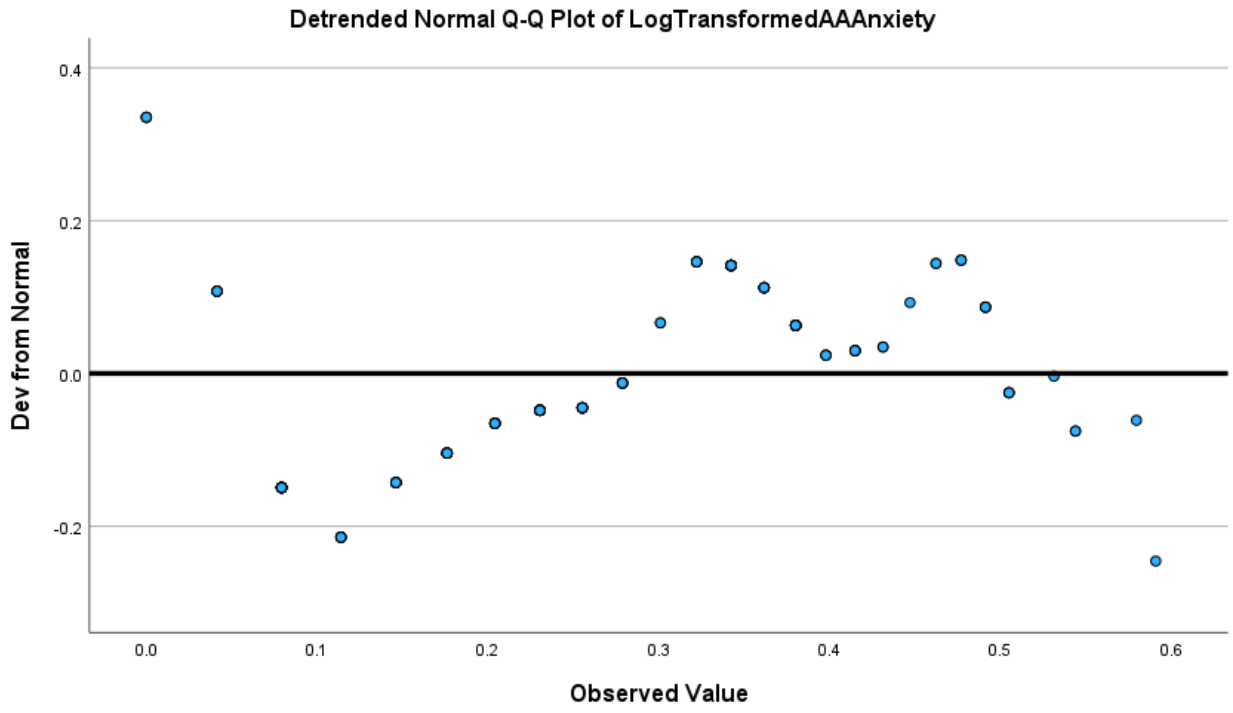


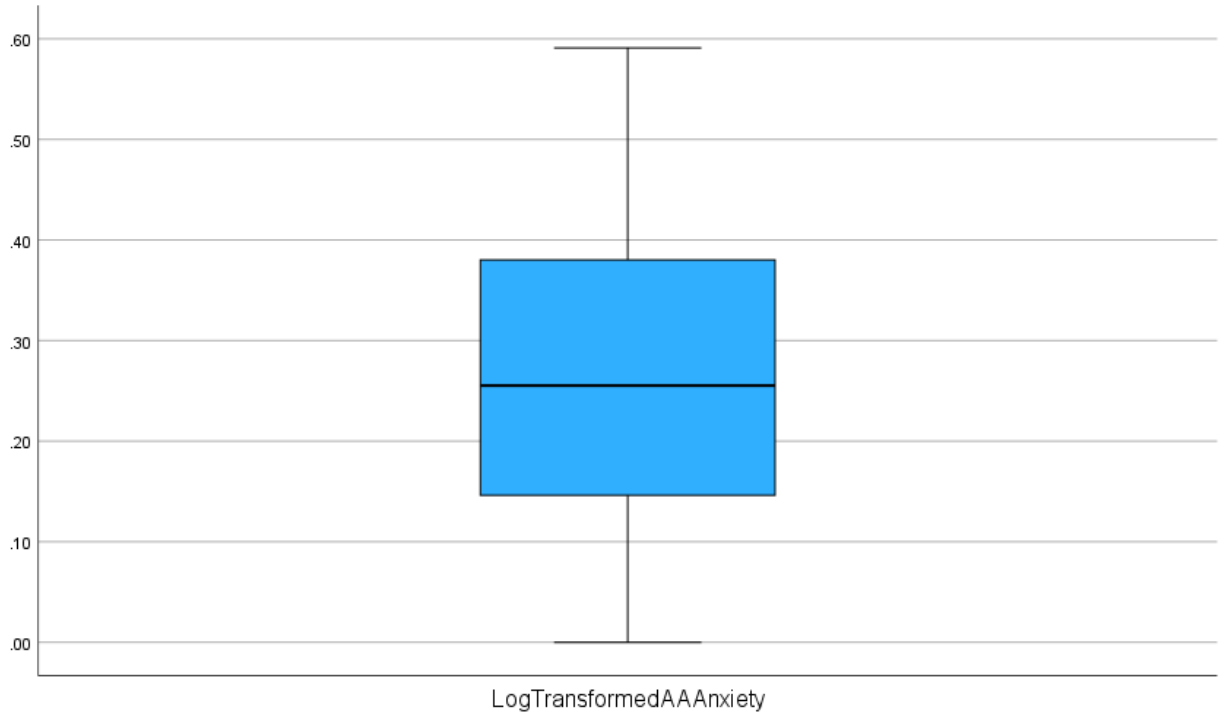

Detrended Normal Q-Q Plot of Reverse Log Transformation for PS Mean
Dev from Normal
0.2
0.0000
-0.2
-0.4
0.0
0.2
0.4
0.6
0.8
Observed Value

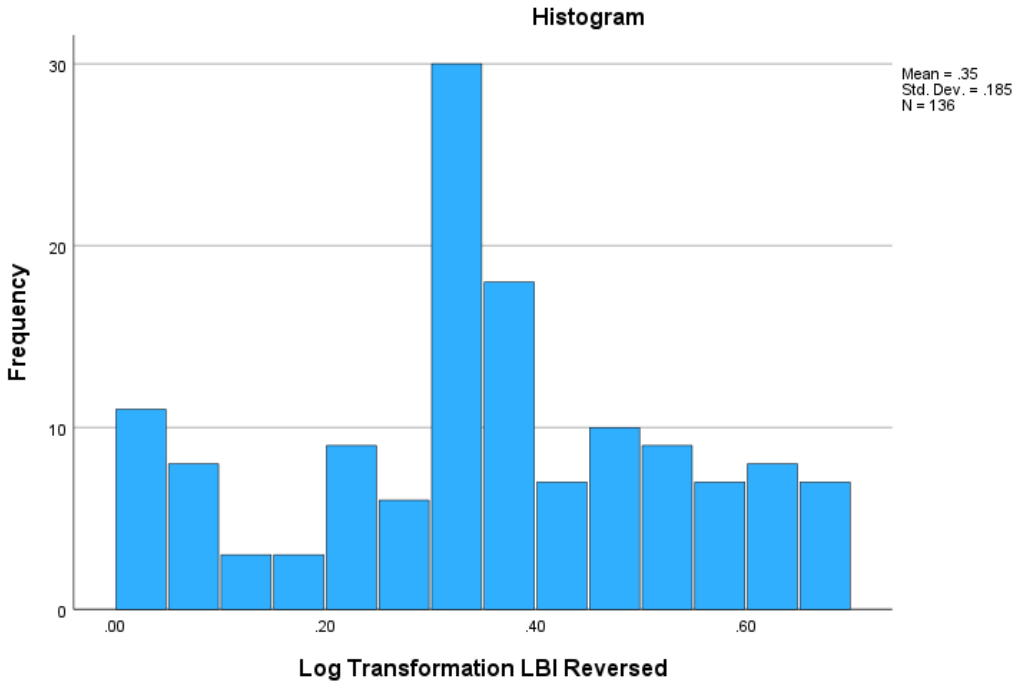

.80
.60
.40
.20
.00
Reverse Log Transformation for PS Mean

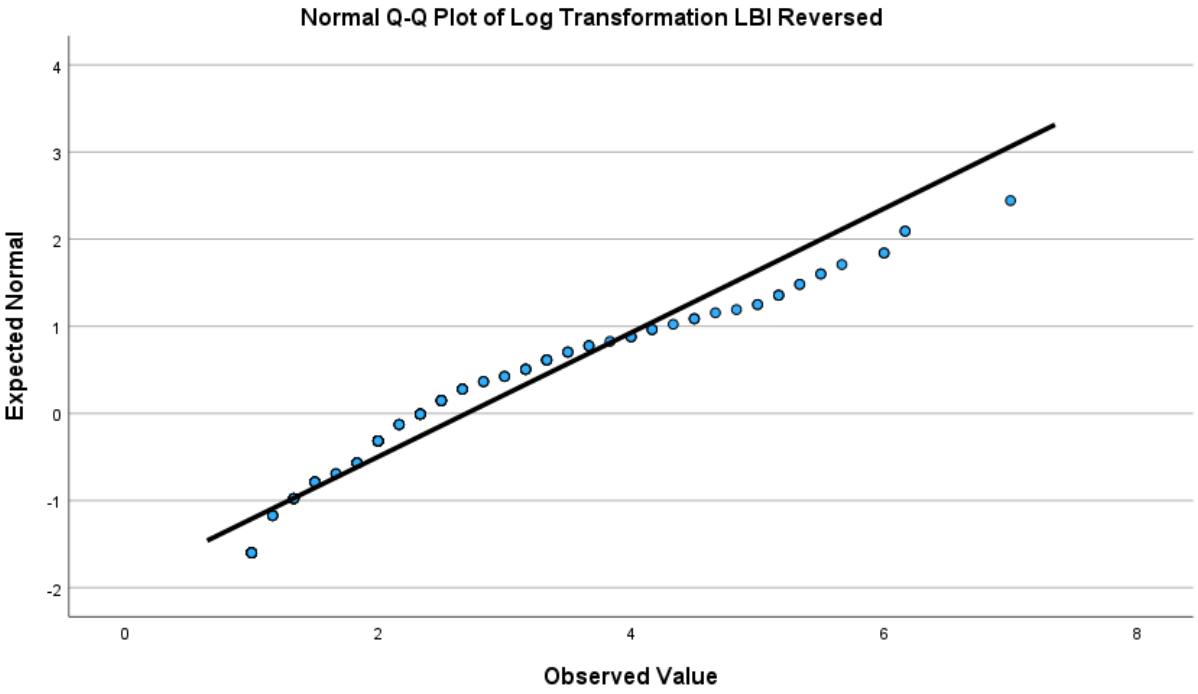

Histogram
Mean = .27
Std. Dev. = .146
N = 136
Frequency
20
15
10
5
0
.00
.10
.20
.30
.40
.50
.60
LogTransformedAAAnxiety

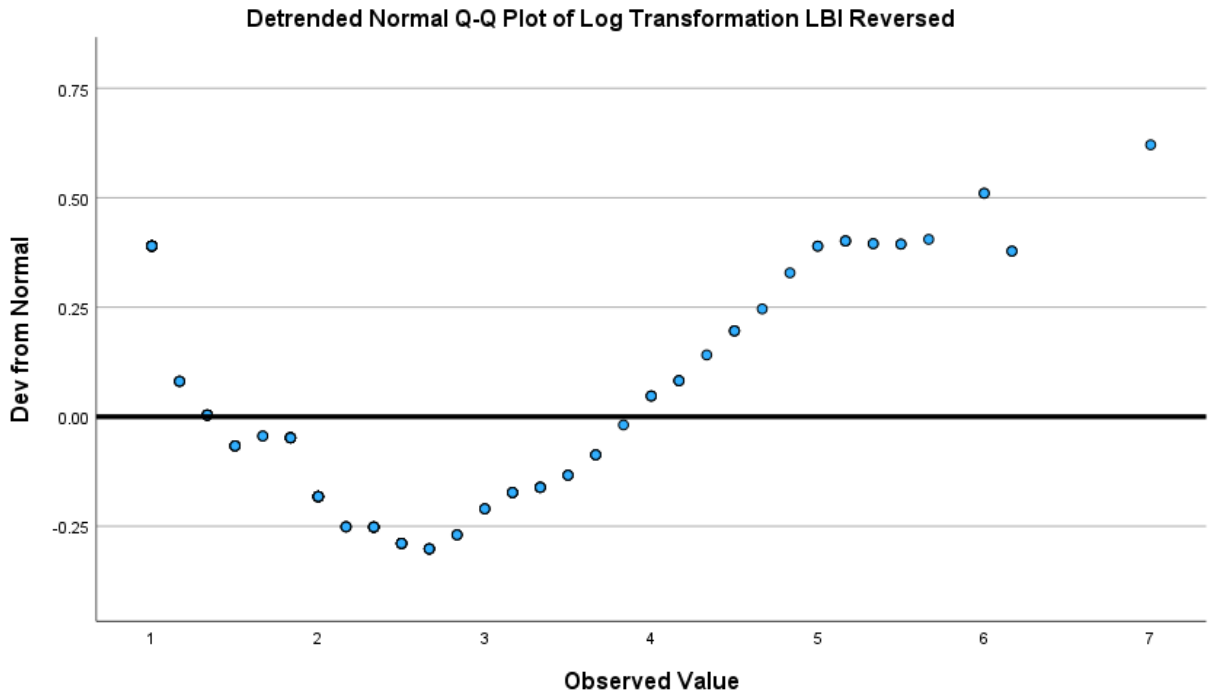

Normal Q-Q Plot of LogTransformedAAAnxiety
Expected Normal
3
2
1
0
-1
-2
-3
0.0
0.2
0.4
0.6
Observed Value

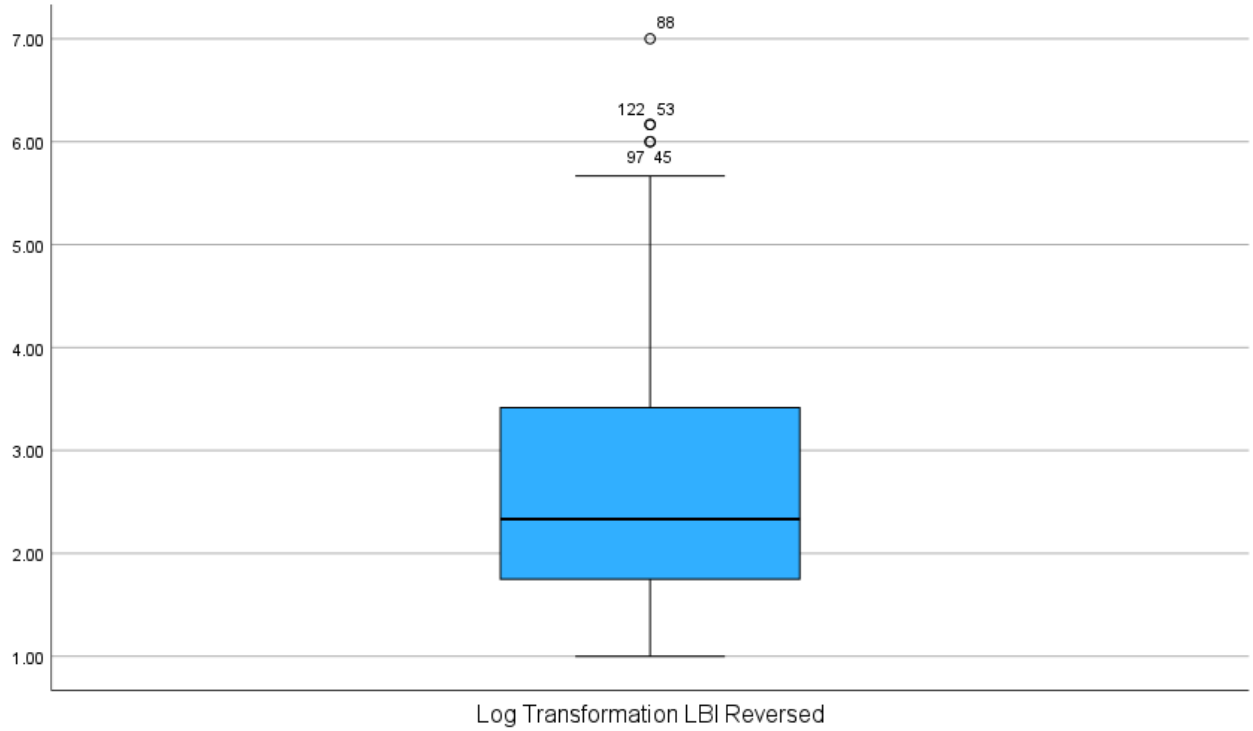

Detrended Normal Q-Q Plot of LogTransformedAAAnxiety
Dev from Normal
0.4
0.2
0.0
-0.2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Observed Value


.60
.50
.40
.30
.20
.10
.00
LogTransformedAAAnxiety


Histogram
Mean = .35
Std. Dev. = .185
N = 136
Frequency
30
20
10
0
.00
.20
.40
.60
Log Transformation LBI Reversed


Normal Q-Q Plot of Log Transformation LBI Reversed
Expected Normal
4
3
2
1
0
-1
-2
0
2
4
6
8
Observed Value


Detrended Normal Q-Q Plot of Log Transformation LBI Reversed
Dev from Normal
0.75
0.50
0.25
0.00
-0.25
1
2
3
4
5
6
7
Observed Value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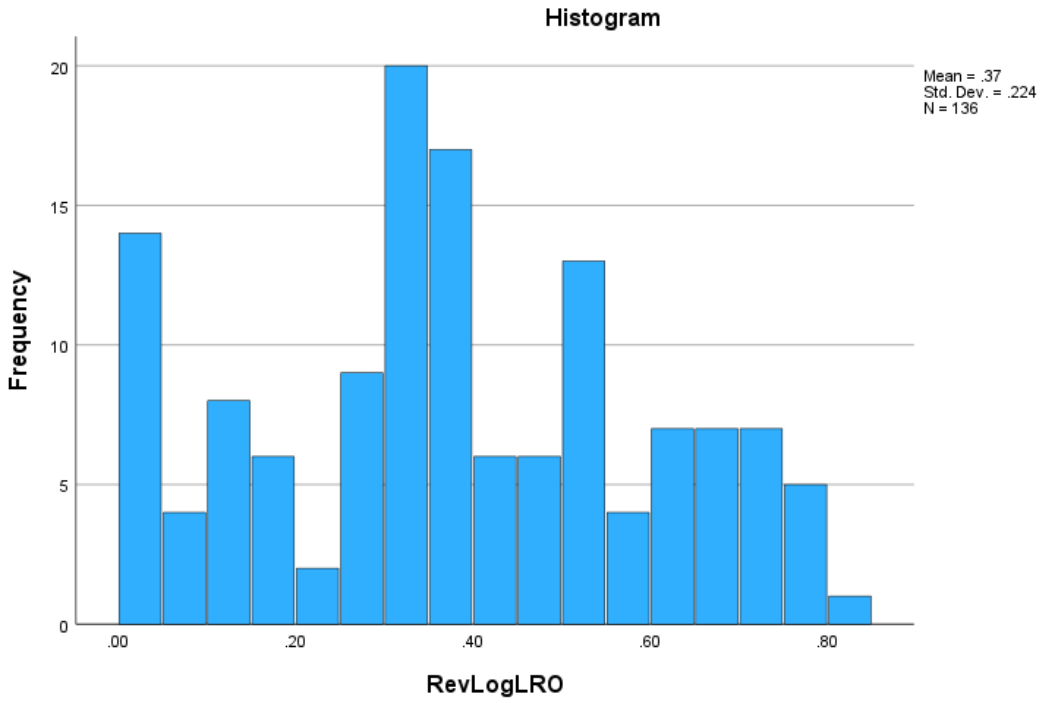
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N = 136
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.00
.20
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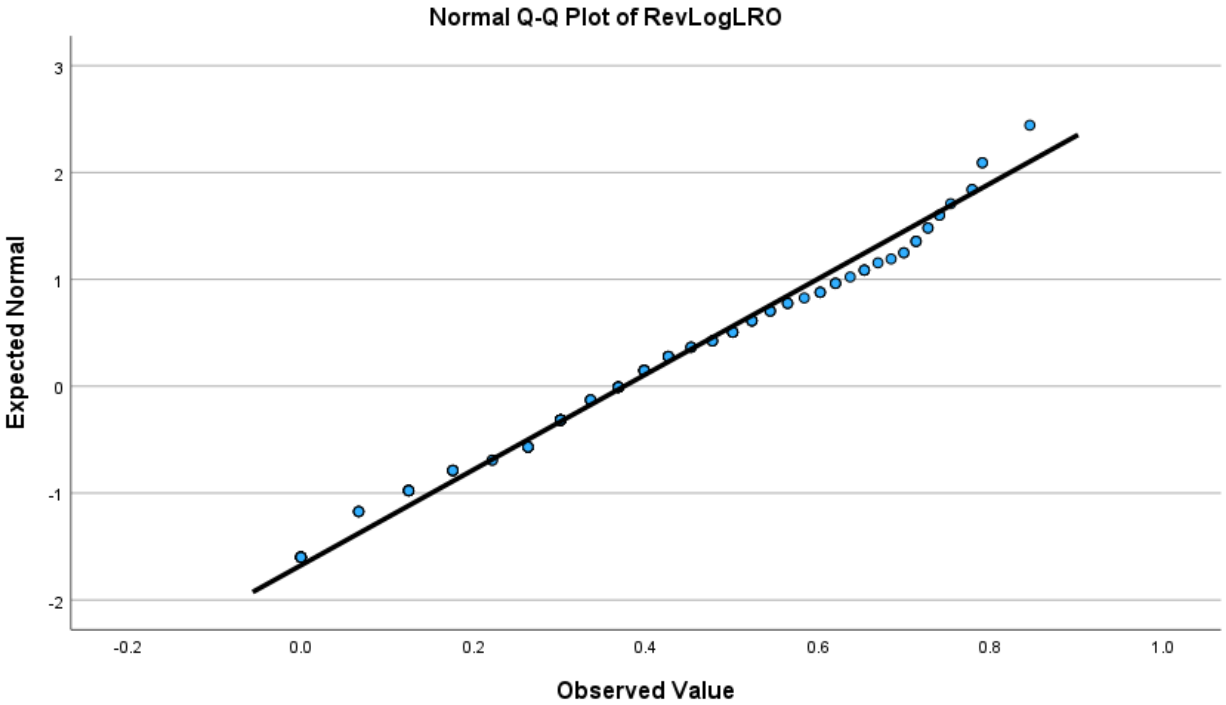
.60
.80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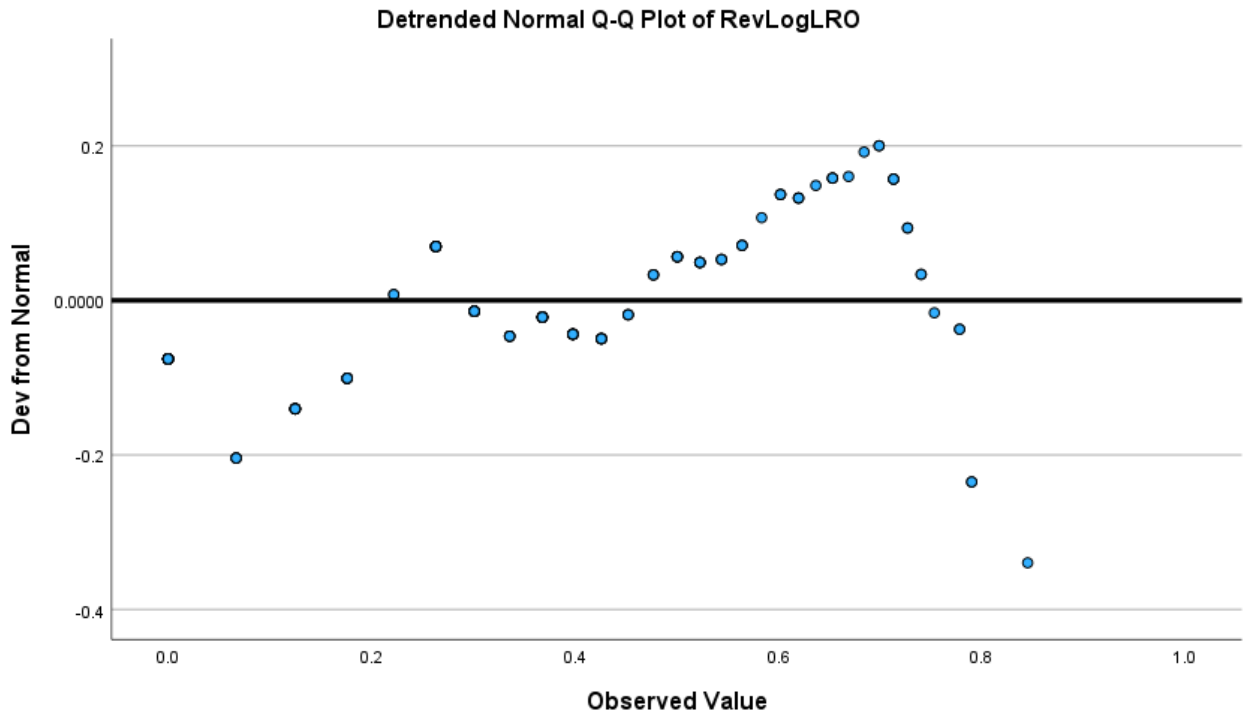
1.0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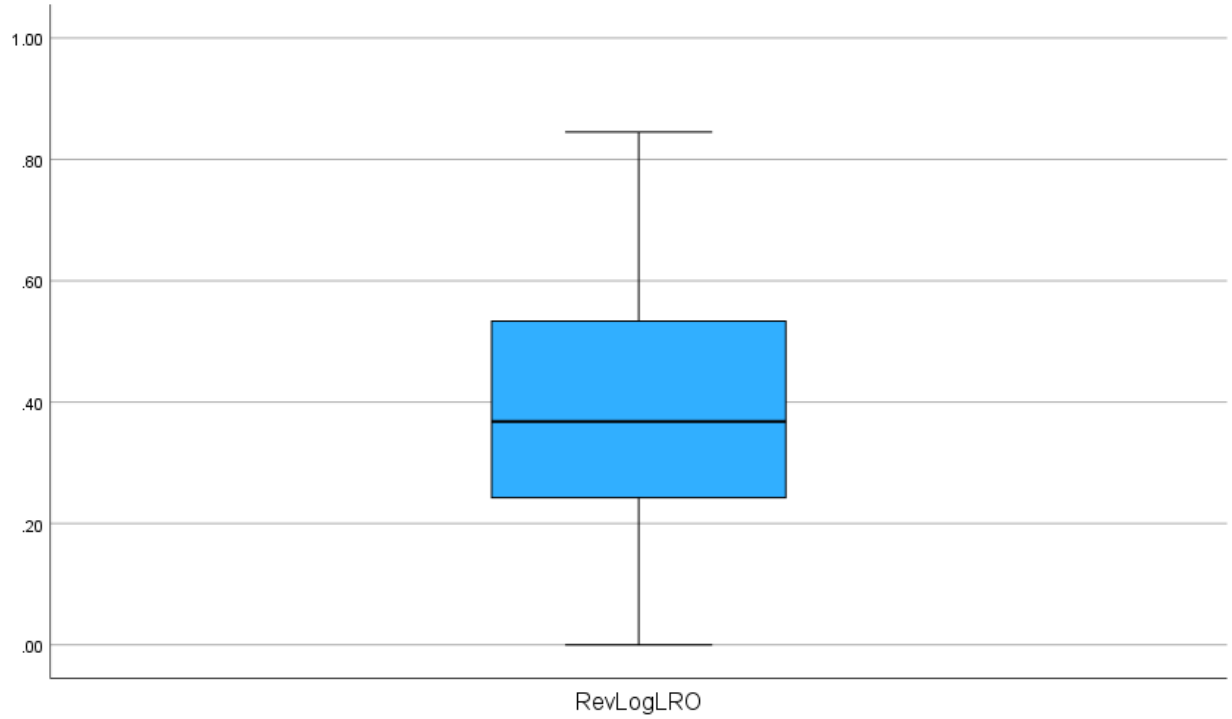
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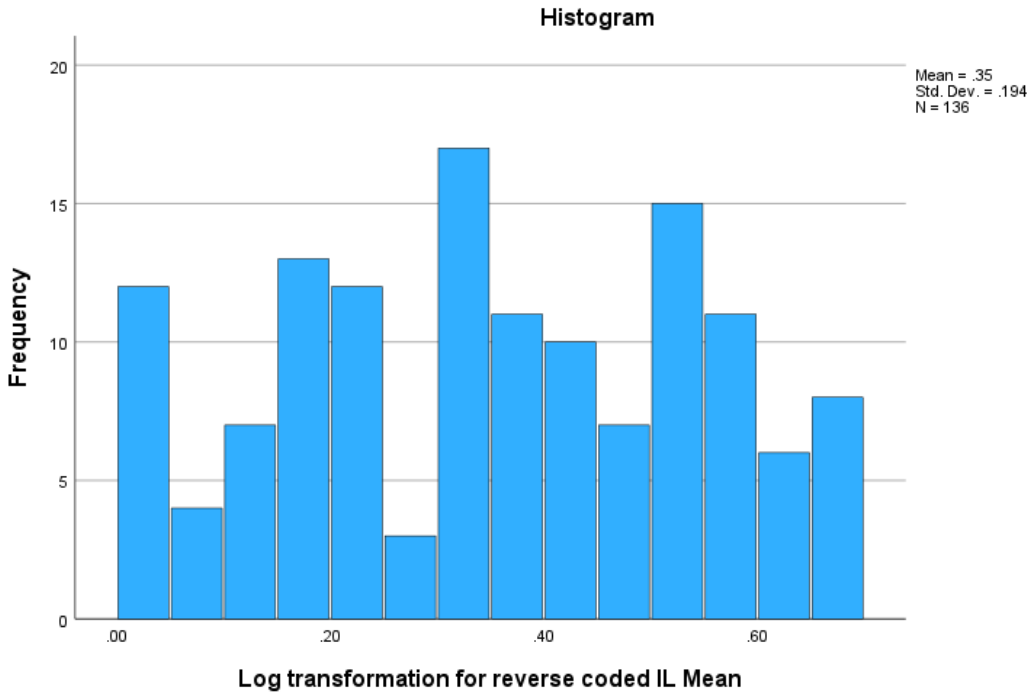
RevLogLRO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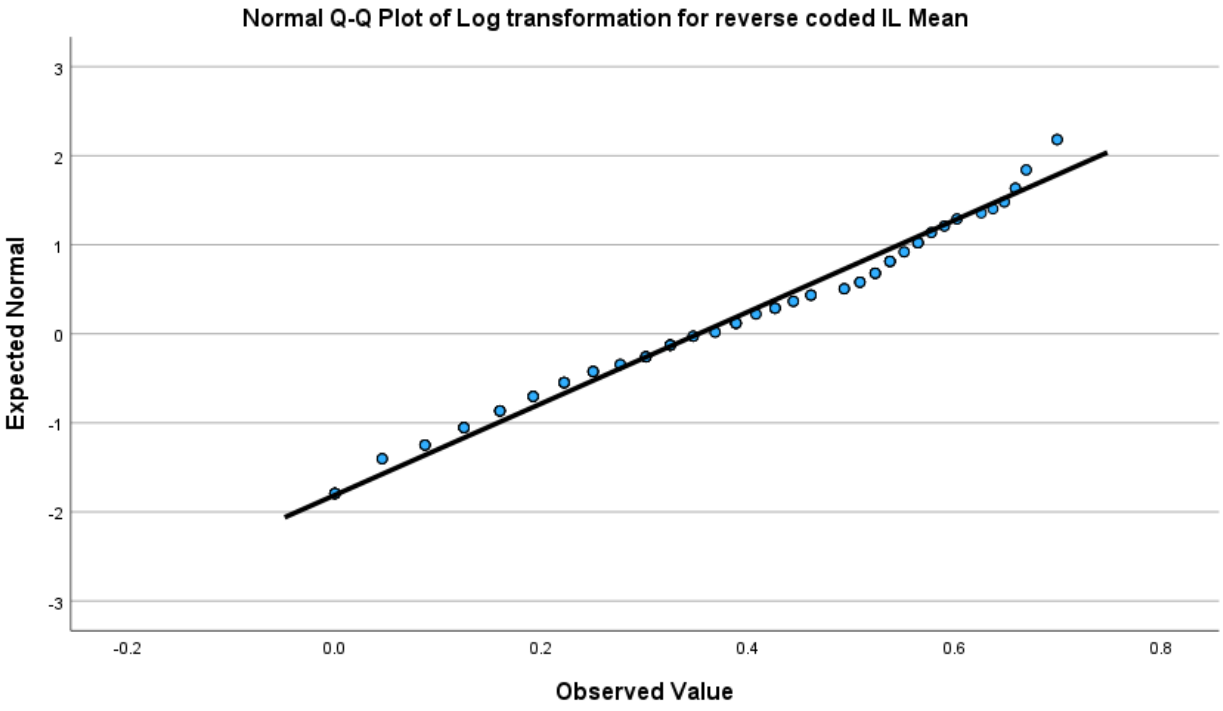
Log transformation for reverse coded IL Mean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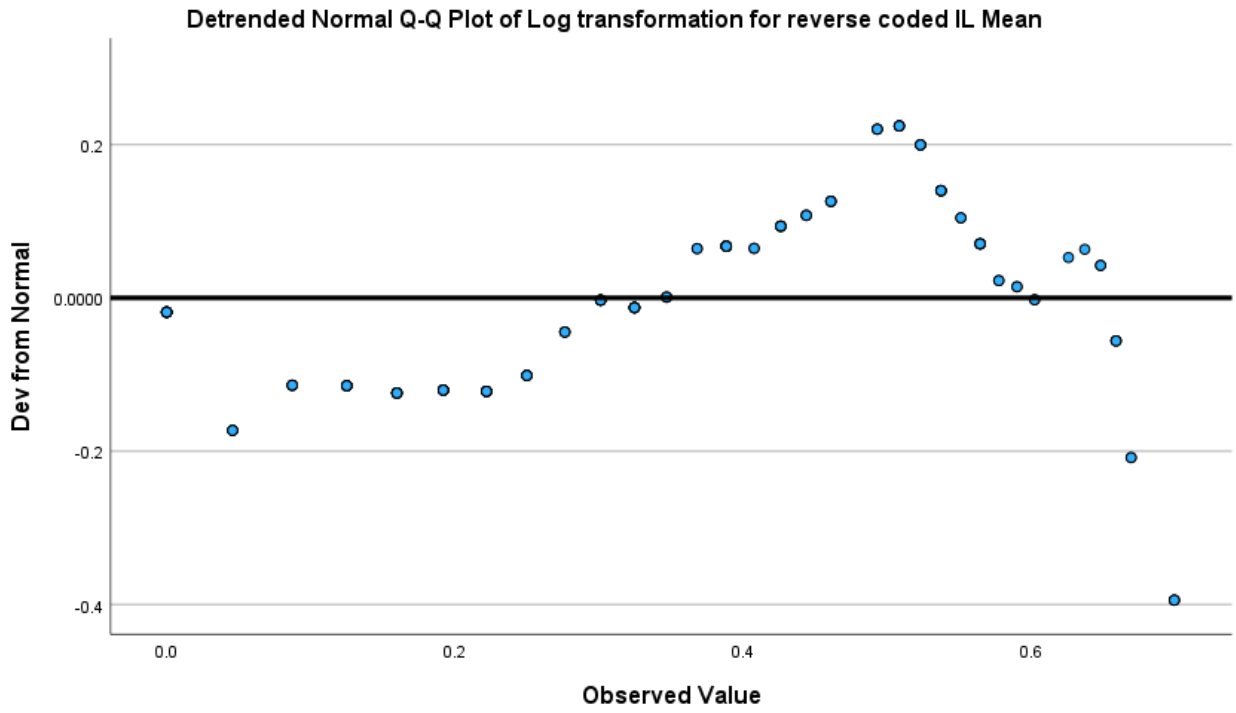
Observed Value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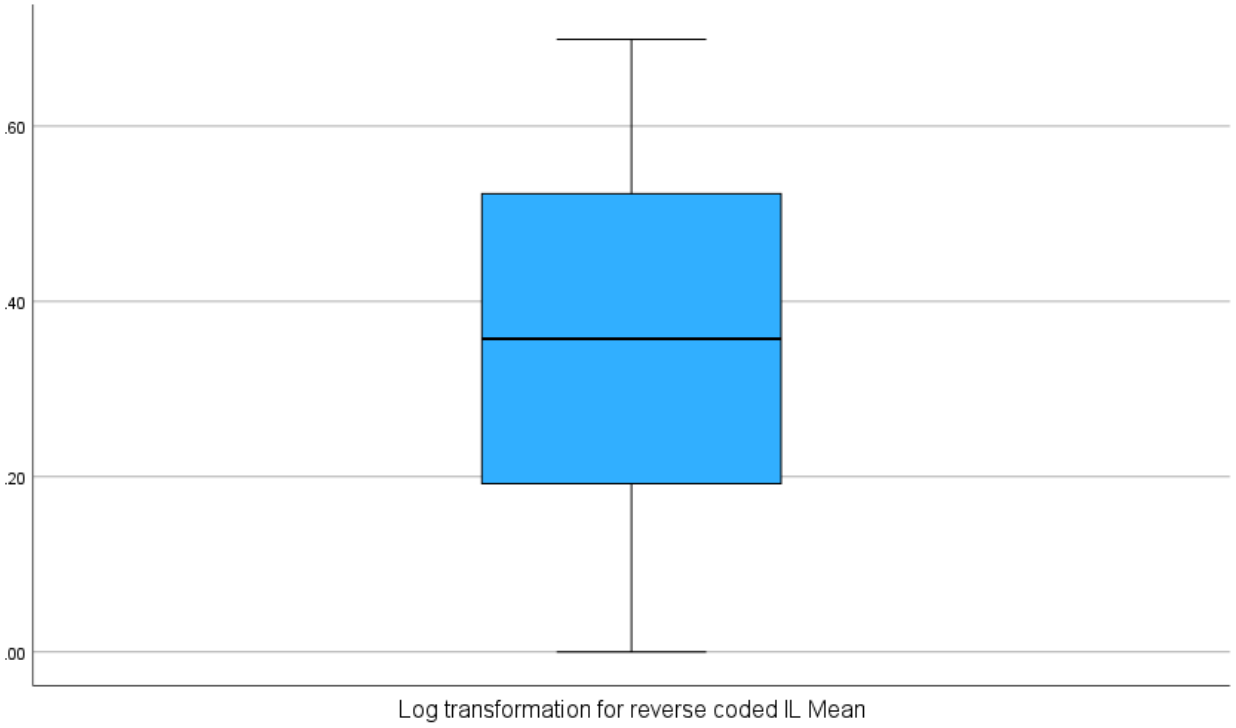
Observed Value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Chapter Three: Critical Appraisal

Costs of Caring and Psychological Safety in NHS Mental Health Professionals; Reflections on Decisions and Challenges

Word count (excluding references, tables and appendices): 3999

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Critical Appraisal

The aim of this appraisal will be to present a summary of the findings, and provide additional context to, Chapters 1 and 2 of the present document. It will identify challenges within the research process, and key decisions resulting from these. The thought processes behind these decisions will be discussed, including potential strengths and limitations because of these. Finally, implications for practise and future research discussed in previous chapters will be expanded on.

Research Area/Focus

Choosing to conduct research in this area was, in part, due to my own experiences. Having worked in mental health services for 7 years and within the NHS for 5, I had seen difficulties come up, both for myself and other staff members. Despite finding the work rewarding, and seeing other staff feeling satisfied, I witnessed how high demands from operational management, external stakeholders and internal pressures of wanting to support people, affected both professional and personal quality of life. This also influenced team dynamics, and the experiences of staff members who were part of the team. Despite there being a range of initiatives in relation to quality improvement and reducing staff burnout, it felt like staff's voices and experiences were being missed, specifically the interplay between our own experiences and the work we do. They also tended to miss the wider socio-political context of the NHS, and the additional stress that this puts on staff. For example, during COVID-19, there was a huge amount of uncertainty across all levels of the NHS, and the interplay between healthcare and politics became more visible. This connection and passion for staff that work within NHS systems, has been useful in maintaining my interest over the three years of the project, which was especially helpful when managing competing demands of clinical training. Despite these positive points, there is the risk that my own experiences might influence the research process [(1)]. In order to try to reduce the impact of this on the objectivity of my research, this was discussed during research supervision sessions.

Summary of Findings

The systematic literature review (SLR) aimed to identify risk and protective factors for secondary traumatic stress (STS), compassion fatigue (CF) and burnout (BO). There was difficulty with synthesising results for STS and CF, due to only one paper investigating each of these constructs within the target population. Similarly, although we had originally intended to include vicarious trauma (VT), this was unable to be included as no research fitting the inclusion criteria was found.

Results showed that the majority of factors influencing BO were organisational factors, with some individual factors also playing a role. Job factors such as job ambiguity, job demands and specific therapeutic orientations (commonly Cognitive Behavioural Therapy; CBT) were found to increase the risk of BO. Work-variables specifically related to client-focused work were found to predict BO in a way that varied between practitioners. For example, hours of overtime predicted increased scores on both emotional exhaustion (EE) and depersonalisation (DP) subscales in Psychological Wellbeing Practitioners (PWPs), but not High Intensity Therapists (HITs), whereas increased hours of client contact was predicted higher EE and DP scores in HITs, but not PWPs. This suggests that the role staff hold might play a moderating factor in relation to risk factors and the development of BO. Individual factors found to act as risk factors for BO included negative affectivity (heightened experiences of negative emotions) and avoidance of emotional experiences. These were found to predict higher BO scores however, again, due to the cross-sectional nature of the study, it is unclear if these factors affected levels of BO within the sample, or were influenced by participant's burnout scores. Demographic variables provided mixed results. Younger age was identified as a risk factor in five of the studies, with three papers reporting this specifically in relation to the DP subscale. Two studies found women scored higher for BO, however one paper reported men scoring higher, with other results reported no significant difference.

Job-related factors found to protect against BO included job satisfaction, security and workplace support. Factors specific to client-focused work that were protective in relation to BO were an awareness of targets, positive therapeutic bonds with clients and a sense of coherence (feeling that the world is understandable, meaningful and manageable). The availability and quality of a supervisory relationship was a protective factor in relation to BO, specifically trust/rapport in the relationship, time available for supervision and the level of value placed on supervision.

The empirical paper aimed to explore the application of findings from psychological safety (PS) research in other professions to MHPs. Specifically, the role of leadership factors and adult attachment (AA) styles on PS in MHPs working within NHS trusts across England, using leader-member exchange (LMX) theory [(2)] and attachment theory [(3)] as a theoretical basis. LMX suggests that the interaction between leaders and team members, and the quality of these relationships are responsible for a range of positive, work-related outcomes.

Findings showed that there was no association between demographic (age and gender) or work-related factors (full- or part-time WTE, current profession, time in current role and time in similar roles) and PS. Initial correlations for main study variables showed no significant relationship between PS and AA style. There was also no relationship between AA style and reported leadership

behaviours. However, there were significant correlations between each of the leadership factors and PS. Relation oriented leadership behaviours (ROB) showed a strong, positive correlation with PS, whilst leadership behavioural integrity (LBI) and inclusive leadership (IL) showed moderate, positive correlations. A multiple linear regression analysis identified that leadership factors significantly explained 42.4% of the variance in PS, with ROB being the only variable that was significantly independently associated with PS.

Taken together, findings provide support for the role of LMX and JD-R theories within UK mental-health services, and the application specifically to UK MHP's wellbeing. Whilst the SLR looked at broader risk and protective factors that might fit into a JD-R model framework, the empirical paper built on this further, focusing specifically on team members relationships with their managers or supervisors, in line with LMX. Using these theories allowed findings to be developed into clinically relevant suggestions for the future. In all, the key outcome of the thesis is the importance of supporting staff wellbeing across all levels of the organisation. Whilst this, in turn, may influence organisational culture to feel more psychologically safe, it is outside the scope of the present thesis to comment on this directly.

Reflections on the SLR Process

Initial Searches and Deciding on Scope of the Review

Initial thoughts in relation to the SLR were focused on identifying areas of research into staff wellbeing that was novel, yet had enough research to conduct a robust systematic review. In addition to this, I wanted to focus on developing a review that was clinically relevant. At times, this proved more difficult than expected, particularly striking a balance between there being too much or too little research. For example, initial ideas were around the impact of austerity on mental healthcare systems, however this provided too little evidence to conduct a thorough review, especially given that one had recently been conducted in the area [(4)]. This review made use of grey literature, such as newspaper/online articles, books and theses, given the lack of empirical research published within peer-reviewed journals. This is of interested when thinking about what is agreed to be 'knowledge' and how this might have influenced my own SLR.

Other initial searches around burnout in mental health professionals (MHPs) provided lots of research, with lots of reviews already conducted in the area. However, research in this area also looked at other 'costs of caring'. These areas fitted with the themes of the thesis, were of interest to myself and provided opportunities for clinical implications. The more common aspects that were

identified during broader searches were burnout (BO), compassion fatigue (CF), secondary traumatic stress (STS) and vicarious trauma (VT). Whilst the choice to focus on UK-specific findings could be a limitation, given the reduced generalisability of findings, I would argue that this is a strength of the present review, making clinical implications applicable to the UK's healthcare systems and political cultures. Once this focus was agreed on, a more specific search strategy was adopted. This was developed with guidance from a faculty librarian, who provided expert support into the appropriateness and suitability of search strategies, in order to increase the quality of my systematic searches [(5)].

Having a broad idea as to where I wanted the research to focus, I began to think about specific questions in relation to the screening process. For example, including location within the search strategy (to try to retrieve UK specific papers), gave very few findings, as this is not information typically included in titles and/or abstracts. Similarly, although potentially captured as part of the systematic searching, research into student professionals (such as student nurses) were not included, due to having different pressures and support systems to qualified staff [(6)]. Finally, only peer-reviewed journal articles were used, with dissertations/theses, conference papers and other resources being excluded. As previously discussed, this may be a weakness of the present review, having potentially missed papers that held relevant findings but (for multiple reasons and biases) have not been published in a peer-reviewed journal. As already briefly mentioned, this is something that I have reflected on in relation to what is considered 'knowledge' and where this sits within research systems. This will have affected my own SLR, with the results of this being skewed in line with biases in research (such as where research that does not show any significant findings is more likely to not be published by peer-reviewed journals). In future, I would hope to include more grey literature in my reviews, to try to provide a more robust, well-rounded picture of the research. Although inclusion/exclusion criteria were considered during initial searches, these were more relevant to the screening process.

Quality Appraisal

Quality appraisal was another area of the SLR that was considered, specifically in relation to the appraisal tool used. Whilst research has identified that the Joanne Briggs Institute (JBI) critical appraisal checklist for analytical cross-sectional studies [(7)] is a preferred option, it did not disclose how it came to this conclusion. I felt that the Appraisal tool for Cross-Sectional Studies (AXIS tool) [(8)] was more appropriate, given it looked at the quality of both design and write up of research, and the risk of bias, such as potential conflicts of interest, and non-responders bias. It was developed using previously published appraisal tools (including the JBI tool discussed), and had a detailed and

comprehensive supporting document. One author conducted quality appraisal, however a colleague reviewed a selection of these independently, to reduce any biases, and to try to increase objectivity in the quality appraisal process.

Data Synthesis

Given the range of factors explored and the exploratory nature of the review, it was felt that a narrative synthesis felt most appropriate. It allowed flexibility to report on the findings in a way that could be adapted based on the level of detail findings provided. For example, although VT was included within the search strategy, the review found that there was no quantitative research within MHPs in the UK regarding risk and protective factors for this. The use of narrative synthesis design meant that this could be incorporated into the review without major methodological issues. It also allowed the comparison of findings from different quantitative analyses, by using effect sizes as a comparator. This also helped towards the goal of the review providing findings that would be clinically relevant. Although narrative synthesis is noted as lacking in transparency and lacking guidance on how to conduct this type of synthesis [(9)], having an awareness of these limitations meant that I was proactive in being transparent about the methodology and how this had been used this within my reporting, something which I feel is a strength of the review.

Reflections on the Empirical Paper Process

Research Topic

Similarly to the SLR, deciding on the research topic for the present study proved difficult, given the lack of research in PS within mental health teams. However, this also provided an opportunity to conduct research in a relatively novel area that I was interested in. Due to the lack of research in the specific area I wanted to focus on (mental health teams), I began by gathering information from research into related areas (such as physical health). This gave me a good starting point into factors that might affect levels of PS within a team, but also gave a wide range of different factors that could be investigated. One particular, relatively recent, systematic review, looking specifically at antecedents of PS in healthcare teams [(10)] was helpful in identifying a starting point for my own research. The decision to focus on leadership behaviours took into account a combination of factors, including available literature in the area of leadership as a whole compared to other areas. Other factors taken into account were the ability to accurately and reliably measure constructs within the time-period. For example, measuring organisational culture in particular can be difficult, with research finding that the NHS specifically does not use a standardised measure for measuring

this [11]. The idea to include AA was suggested as both a novel idea, but also incorporated some of my own individual interests into attachment theory. Again, despite research in other occupations [12], and in staff-service user relationships within MHPs, but has been less investigated in relation to staff-leader/management relationships in MHPs [13].

Survey Design

Designing the survey felt like the first challenge of the study, and I was keen to make sure that the survey was as accessible as possible to all professionals within mental health settings, whilst still collecting data that was accurate, reliable and relevant to the research question. Questionnaires were identified that collected aspects of leadership that had been identified as antecedent's in O'Donovan & Mcauliffe's [10] systematic review. All leadership questionnaires used have been previously used and validated within samples of healthcare staff [14, 15, 16]. Identifying a appropriate measure for AA style was more complex. I was that the focus of these measures tends to be close relationships, something that might not always translate to the workplace. Therefore, the decision was made to use the Psychosis Attachment Measure (PAM, [17]). Although originally validated with those experiencing psychosis, it has also been validated for use in non-clinical samples [18]. One reflection noted when looking for measures of AA was the difficulty with finding a validated self-report measure that was specific enough to the organisational context. Particularly when there is evidence of the role of attachment within the workplace [13], it was difficult to find a measure that felt as appropriate as I would have liked, something that should be held in mind in future research. Once an initial draft of the questionnaire package was put together, three MHPs from various professions read this, and provided feedback regarding clarity and adaptations that might be helpful. For example, they highlighted that participants may not feel comfortable giving their age, as this might be felt to decrease anonymity. Because of this, age was collected as nominal data. There is also some evidence that healthcare staff may not respond to surveys due to time pressures in the workplace [19], and staff feedback supported that parts of the questionnaire package felt long and off-putting to potential participants. Some changes were made to shorten this; however, this was difficult given the amount of information required for informed consent. However, length of the survey was held in mind when selecting questionnaires, and choosing to focus on leadership factors.

Despite the level of care taken with survey design, a survey had been included within the original questionnaire package that was missed on the actual survey. Upon further investigation, despite this survey being included within the Qualtrics online software, it had not been included within the survey's 'work flow' section, meaning that although appearing to be included one the professional dashboard, it was not shown to participants when completing the survey. This was not

noticed until data collection had closed and analysis was beginning. However, this has been a learning point in terms of having thorough checks in place, and making sure that I am familiar with the software being used to generate surveys.

Recruitment

Recruiting NHS staff via social media was a decision that was made for multiple reasons. The main contributing factor was that it would allow a wide geographical range, and allow the survey to be completed outside of the workplace. It was hoped that this would allow participants the chance to engage honestly with the survey, even if they did not feel safe at work. As previously mentioned, time pressures were held in mind, and so in addition to the length of the survey, making sure that it could be accessed outside of the workplace felt like one way to try to reduce this. Although we managed to recruit the required number of participants for statistical power using social media & snowballing recruitment, had this not been the case, I would have applied for Health Research Authority (HRA) ethical approval to allow recruitment via NHS Trusts and organisations (see Chapter 4 for ethics section). Learning about the ethics processes and when certain approvals are required was a learning curve for me, and one that I will keep with me for future research. Whilst I do believe that the use of social media allowed a wider range of participants, in future I would have completed HRA approval and ran both recruitment strategies simultaneously. This might have improved accessibility of the survey, for example, those who do not use/have access to social media might have found it difficult to engage, given that this is where advertisement was focused.

Data Cleaning & Analyses

Data screening processes revealed a low number of missing items that were missing completely at random (see Chapter 2 for full data cleaning process). This indicated that the thought that went into the survey design was well founded, with those who chose to complete the survey mostly doing so in its entirety, with some human error. However, there were also a small number of identified participants (*N = 4*) who's data was removed due to being identified as not fitting the recruitment criteria. This was only removed where it was obvious it did not fit the criteria (e.g.; had specified working in a different industry to mental health). However, the fact that some participants were identified as having not fit criteria, combined with the fact that participants were not asked to prove that they worked for the NHS (to try and increase anonymity), means that there may be others. Data cleaning also highlighted issues regarding normality. Initial normality tests indicated that anxious attachment scores were positively skewed (indicating scores were skewed as lower than normal), whilst scores for PS and all leadership variables were negatively skewed (indicating that scores were skewed higher than normal). Due to the significance of these skews (determined

using Z scores [20]) and the fact that data was scale level, logarithmic (and reverse logarithmic) transformations were deemed suitable and conducted to improve the normality of the data.

Hypotheses were made based on LMX [(2)] & attachment theories [(3)], with AA and positive leadership behaviours influencing PS. Originally, structural equation modelling was considered, however due to the exploratory nature of the study, correlation and regression analyses were deemed more appropriate, due to the lack of research in the area.

Implications for the Future

Clinical Implications

Clinical implications felt like an important area of the thesis as a whole, and something that I was keen to reflect with discussion sections. Both Chapters 1 and 2 highlight the importance of staff wellbeing within UK healthcare systems (whether NHS, private or 3rd sector). The thesis supports that a whole system approach is essential to improve and support positive staff wellbeing. In relation to burnout, supporting both individual staff and teams to place value on all aspects of their work (for example, clinical responsibilities in addition to training, development and other areas) will reduce burnout from direct clinical work. Organisations monitoring workload and providing protected time for non-clinical duties might be one practical way to support this. Providing enough adequate supervision was also highlighted as reducing the risk of burnout in MHPs, however it was clear that this supervision needs to meet staff member's individual needs.

This links with findings from the empirical paper, which highlighted how leadership can foster relationships with staff that feel psychologically safe. It is important that this occurs at all levels of leadership within the organisation. In addition to awareness and potential training at all levels of leadership, ensuring that connections are kept between very senior management (VSM) and 'on the ground' staff will support this. It will provide an opportunity for VSM to be held accountable, and provide them with more understanding of the realities of day-to-day work of MHPs, improving their ability to appropriately connect with and support service managers. By improving communication across all levels of the organisation, allowing options for feedback and supporting people to develop, organisations and teams can become more psychologically safe places to work, in turn, reducing potential negative outcomes, such as staff turnover. In addition to this, getting 'buy-in' from leadership at all levels is important in facilitating factors facilitating recommendations already outlined, across a team or organisation.

Research

As has already been reflected in Chapters 1 and 2, there is a limited amount of research into the area, with costs of caring and psychological safety being under researched within UK mental health staff. Research findings from physical healthcare settings appear to have been generalised to mental health settings, despite the unique stressors MHPs face [15]. Therefore, research should initially identify if findings from other settings are applicable. Longitudinal research could be used to identify antecedents and mediating factors, and if interventions aimed at improving PS, or 'cost of caring' scores are effective. Finally, mixed methods, or qualitative research may support staff voices to be heard in relation to how these factors influence 'day-to-day' work, providing richer data to support awareness and the development of local strategies to improve staff wellbeing. In addition to this, using an AA measure that it specific to the workplace context will improve the accuracy of the present study's findings, rather than a general attachment measure.

Widening research in the area would benefit MHPs and service users in the UK in a number of ways. For example, providing evidence for factors that impact on staff wellbeing will allow services and organisations to develop strategies in response to these, in addition to providing evidence to policymakers and commissioners regarding protected time for certain activities (such as supervision) and workforce expansion strategies to support this. Based on the reflections of my own work, recruiting participants directly through the NHS might be beneficial for several reasons. Firstly, participant numbers may increase due to increased accessibility. Next, collecting data on specific work setting, client group and NHS Trust, may provide more specific, localised findings that can be used to tailor interventions to the needs of specific services.

Conclusions

Mental health service providers need to be aware of the impacts that working in emotionally complex and at times distressing environments can have on staff, in order to support them to deliver effective and appropriate care. Despite limitations previously discussed, the present work has highlighted both individual and organisational factors that may influence staff's ability to provide the standard of care they would like.

Given ongoing pressures on the NHS, and in particular mental health services, it is important that we support staff wellbeing, so that staff come to work in a place where they feel safe to raise concerns and difficulties. Change to this effect needs to be done in a way that is meaningful and

effective. Staff wellbeing needs to remain a priority for stakeholders, so that staff can effectively support their service users.

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Chapter Four: Ethics

Ethics Proposal for the Empirical Study: "*Leadership Factors, Adult Attachment and Psychological Safety within UK National Health Service Mental Health Teams*"

Word count (excluding references, tables and appendices): 1134

Sian Linford-Downes

Doctorate in Clinical Psychology

Division of Health Research, Lancaster University

March 2024

Reference #: FHM-2023-3664-RECR-1

Research Ethics Application Form v1.9.7

Research Ethics Application Form v1.9.7 RECR

Attachment, Leadership and Psychological Safety in National Health Service Mental Healthcare Teams - Approved

ETHICS

Information Regarding this Research Project

Are you conducting a research project?

(for more information on research projects please see our ethics pages)

(•) Yes ( ) No

Does your research only involve animals?

( ) Yes (•) No

Are you undertaking this research as/are you filling this form out as:

( ) Academic/Research Staff
( ) Non Academic Staff
( ) Staff Undertaking a Programme of Study
(•) PhD or DClinPsy student or MPhil
( ) Undergraduate, Masters, Master by Research or other taught postgraduate programme

Which Faculty are you in?

Faculty of Health and Medicine

Which department are you in?

Health Research

ETHICS

Will your project require NHS REC approval? (If you are not sure please read the guidance in the information button)

○ Yes ◉ No

Do you need Health Research Authority (HRA) approval? (Please read the guidance in the information button)

○ Yes ◉ No

Have you already obtained, or will you be applying for ethical approval, from another institution outside of Lancaster University? (For example, an external institution such as: another University's Research Ethics Committee, the NHS or an institution abroad (eg an IRB in the USA)? Please select one of the following:

◉ No, I do not need ethical approval from an external institution.
○ Yes, I have already received ethical approval from an external institution.
○ Yes, I will be applying for ethical approval from an external institution after I have received confirmation of ethical approval from my Faculty Research Ethics Committee (FREC) at Lancaster University, if the FREC grants approval.

Is this an amendment to a project previously approved by Lancaster University?

○ Yes ◉ No

Will your research involve any of the following? (Multiple selections are possible, please see i icon for details)

☑ Human Participants
☐ Data relating to humans (Secondary/Pre-existing data only)
☐ Data collection from online sources such as social media platforms, discussion forums, online chat-rooms
☐ Human Tissue
☐ None of the above

Project Information

Please confirm/amend the title of this project.

Attachment, Leadership and Psychological Safety in National Health Service Mental Healthcare Teams

Estimated Project Start Date 01/06/2023

Estimated End Date 01/03/2024

Is this a funded Project?

○ Yes ◉ No

Research Site(s) Information

Will you be recruiting participants from research sites outside of Lancaster University? *(E.g. Schools, workplaces, etc; please read the guidance in the information button for more information)*

◉ Yes ○ No

Please provide the number, type and location of external research sites that you are using (please see help text for details).

Research sites will include Mental Health Teams in the UK from a variety of settings. Currently it is expected that there will be a combination of community (5), inpatient (2) and specialist settings (2).

Applicant Details

Are you the named Principal Investigator at Lancaster University?

◉ Yes ○ No

Please check your contact details are correct. You can update these fields via the personal details section located in the top right of the screen. Click on your name and email address in the top right to access "Personal details". For more details on how to do this, please read the guidance in the information button.

First Name

Sian

Surname

Linford-Downes

Department

Division of Health Research

Faculty

Faculty of Health and Medicine

Email

s.linford-downes@lancaster.ac.uk

Principal Investigator

You have stated that you are the Principal Investigator for this project.

First Name

Sian

Surname

Linford-Downes

Department

Division of Health Research

Email

s.linford-downes@lancaster.ac.uk

Supervisor Details

Search for your supervisor's name. *If you cannot find your supervisor in the system please contact rso-systems@lancaster.ac.uk to have them added.*

First Name

Katy

Surname

Bourne

Department

Division of Health Research

Faculty

Faculty of Health and Medicine

Email

k.bourne@lancaster.ac.uk

Do you need to add a second supervisor to sign off on this project?

- ○ Yes
- ◉ No

Additional Team Members

Other then those already added, please select which type of team members will be working on this project:

- ☐ I am not working with any other team members.
- ☐ Staff
- ☐ Student
- ☑ External

Please list all external contacts here:

First Name

Laura

Surname

Twist

Organisation

Lancashire and South Cumbria NHS Foundation Trust

Details about the participants

As you are conducting research with Human Participants/Tissue you will need to answer the following questions before your application can be reviewed.

If you have any queries about this please contact your Ethics Officer before proceeding.

What's the minimum number of participants needed for this project?

129

What's the maximum number of expected participants?

150

Do you intend to recruit participants from online sources such as social media platforms, discussion forums, or online chat rooms?

(•) Yes ( ) No

Will you get written consent and give a participant information sheet with a written description of your research to all potential participants?

(•) Yes ( ) No ( ) I don't know

Will any participants be asked to take part in the study without their consent or knowledge at the time or will deception of any sort be involved?

( ) Yes (•) No ( ) I don't know

ETHICS

Is your research with any vulnerable groups?

(Vulnerable group as defined by Lancaster University Guidelines)

○ Yes ◉ No ○ I don't know

Is your research with any adults (aged 18 or older)?

◉ Yes ○ No

Is your research data collected with completely anonymous adult (aged 18 or older) participants, with no contact details or other uniquely identifying information (e.g. date of birth) being recorded?

○ Yes ◉ No

Is your research with adult participants (aged 18 years, or older) in private interactions (for example, one to one interviews, online questionnaires)?

◉ Yes ○ No

Is your research with any young people (under 18 years old)?

○ Yes ◉ No ○ I don't know

Does your research involve discussion of personally sensitive subjects which the participant might not be willing to otherwise talk about in public (e.g. medical conditions)?

○ Yes ◉ No ○ I don't know

Could the study induce psychological stress or anxiety, or produce humiliation or cause harm or negative consequences beyond the risks encountered in a participant's usual, everyday life?

○ Yes ◉ No ○ I don't know

Is there a risk that the nature of the research topic might lead to disclosures from the participant concerning either:

- Their own or others involvement in illegal activities
- Other activities that represent a threat to themselves or others (e.g. sexual activity, drug use, or professional misconduct)?

○ Yes ◉ No ○ I don't know

Does the study involve any of the following:

- Physically intrusive procedures including touching or attaching equipment to participants
- Administration of substances
- Ultrasound or sources of non-ionising radiation (e.g. lasers)
- Sources of ionising radiation, (e.g. X-rays)
- Collection or use of samples of Human Tissue (e.g. Saliva, skin cells, blood etc.)

○ Yes ◉ No ○ I don't know

Details about Participant relationships

Do you have a current or prior relationship with potential participants? For example, teaching or assessing students or managing or influencing staff (this list is not exhaustive).

○ Yes ○ No ◉ I don't know

If you need written permission from a senior manager in an organisation where research will take place (e.g. school, business) will you gain this in advance of undertaking your research?

◉ Yes ○ No ○ I don't know ○ N/A

Will you be using a gatekeeper to access participants?

○ Yes ◉ No ○ I don't know if I will be using a gatekeeper

Will participants be subjected to any undue incentives to participate?

○ Yes ◉ No ○ I don't know

Will you ensure that there is no perceived pressure to participate?

◉ Yes ○ No ○ I don't know

Participant data

Will you be using video recording or photography as part of your research or publication of results?

○ Yes ◉ No

Will you be using audio recording as part of your research?

- ○ Yes
- ◉ No

Will you be using portable devices to record participants (e.g. audio, video recorders, mobile phone, etc)?

- ◉ No
- ○ Yes, and all portable devices will be encrypted as per the Lancaster University ISS standards, in particular where they are used for recording identifiable data
- ○ Yes, but these cannot be encrypted because they do not have encryption functionality. Therefore I confirm that any identifiable data (including audio and video recordings of participants) will be deleted from the recording device(s) as quickly as possible (e.g. when it has been transferred to a secure medium, such as a password protected and encrypted laptop or stored in OneDrive) and that the device will be stored securely in the meantime

Will you be using other portable storage devices in particular for identifiable data (e.g. laptop, USB drive, etc)? (Please read the help text)

- ○ No
- ◉ Yes, and they will be encrypted as per the Lancaster University ISS standards in particular where they are used for recording identifiable data

Will anybody external to the research team be transcribing the research data?

- ○ Yes
- ◉ No

Online Sources

Does your research comply with the site(s) terms and conditions? Before completing the section below please read the 'Social Media Guidance for Researchers'

- ◉ Yes
- ○ No
- ○ It's unclear in the terms and conditions

Is there a reasonable expectation of privacy?

- ◉ Yes
- ○ No

Because there is a reasonable expectation of privacy, you must obtain consent from site users. Therefore you will need to upload a copy of the Participant Information Sheet & Consent form that you intend to use to obtain their informed consent.

General Queries

Does the funder or any organisations involved in the research have a vested interest in specific research outcomes that would affect the independence of the research?

○ Yes ◉ No ○ I don't know

Does any member of the research team, or their families and friends, have any links to the funder or organisations involved in the research?

◉ Yes ○ No ○ I don't know

Can the research results be freely disseminated?

◉ Yes ○ No ○ I don't know

Will you use data from potentially illicit, illegal, or unethical sources (e.g. pornography, related to terrorism, dark web, leaked information)?

○ Yes ◉ No ○ I don't know

Will you be gathering/working with any special category personal data?

○ Yes ◉ No ○ I don't know

Are there any other ethical considerations which haven't been covered?

◉ Yes ○ No ○ I don't know

REC Review Details

Based on the answers you have given so far you will need to answer some additional questions to allow reviewers to assess your application.

It is recommended that you do not proceed until you have completed **all of the previous questions**.

Please confirm that you have finished answering the previous questions and are happy to proceed.

☑ I confirm that I have answered all of the previous questions, and am happy to proceed with the application.

Questions for REC Review

Summarise your research protocol in lay terms (indicative maximum length 150 words).

Note: The summary of the protocol should concisely but clearly tell the Ethics Committee (in simple terms and in a way which would be understandable to a general audience) what you are broadly planning to do in your study. Your study will be reviewed by colleagues from different disciplines who will not be familiar with your specific field of research and it may also be reviewed by the lay members of the Research Ethics Committee; therefore avoid jargon and use simple terms. A helpful format may include a sentence or two about the background/ "problem" the research is addressing, why it is important, followed by a description of the basic design and target population. Think of it as a snapshot of your study.

Mental healthcare can be considered a 'high-risk' interpersonal environment, with staff working in these settings having to manage difficult and emotionally intense conversations on a regular basis with both service users and other professionals. Whilst there has been attempts to apply research from the psychological safety literature to mental healthcare settings, this is very limited. The findings from this research will try to help fill this gap. It will utilise an online questionnaire to collect information from NHS mental health staff members at one particular time point (meaning that staff will not be required to repeat surveys, or give any further information once the questionnaire has been submitted).

State the Aims and Objectives of the project in Lay persons' language.

The project will aim to investigate to what extent leadership factors impact on the levels of psychological safety within mental healthcare settings. In addition to this, we hope to investigate the potential impact of adult attachment style in the workplace, on perceptions of leadership styles and psychological safety.

Participant Information

Please explain the number of participants you intend to include in your study and explain your rationale in detail (eg who will be recruited, how, where from; and expected availability of participants). If your study contains multiple parts eg interviews, focus groups, online questionnaires) please clearly explain the numbers and recruitment details for each of these cohorts (see help text).

G*Power software was used to determine the minimum required sample size for the present study. Parameters were set with a medium effect size (0.15), and α level of 0.05, giving a minimum sample size of 129.

Potential participants will be able to self-identify, rather than having to be identified by the researchers explicitly.
Local NHS Trusts and teams will be contacted individually and asked to advertise the study using the poster within the documents. Researchers contact information will be included in this for teams to contact with any queries if this is required or felt to be beneficial. 'Snowball Recruitment' will also be encouraged - that is, asking those who are contacted to participate in the survey to share this with other teams and/or colleagues.

Participants will also be recruited publicly via social media platforms, such as Twitter, Facebook and LinkedIn. This will also be done using the advertisement poster.

You have indicated that you will collect identifying information from the participants. Please describe all the personal information that you gather for your study which might be used to identify your participants.

As part of the survey itself personal data such as age, gender identity, etc., will be collected.
Participants will also be given the option of giving a contact email address in order to have results directly disseminated to them, if this is of interest. This will be completely optional.

Please describe how the data will be collected and stored.

Personal data collected as part of the survey will be moved from the secure Qualtrics survey software to the Statistical Package for the Social Sciences (SPSS) software. Data will be encrypted and stored on the University's secure storage drive and will only be accessed via the University's password protected system. On completion of the thesis project, data will be securely transferred to the research supervisor via OneDrive. Data will be stored for 10 years in accordance with university policy.

Email addresses that were given as in order for direct dissemination will be stored on a separate, encrypted data file on the university's secure storage drive, will only be accessed to send the results and will be deleted from the system once the dissemination emails have been sent.

Please describe how long the data will be stored and who is responsible for the deletion of the data.

As per the University's data storage policy, data will be stored for 10 years. The supervisor (Dr Katy Bourne) will be responsible for the deletion of this data.
Identifiable data (emails) will be held until dissemination emails have been sent (once the thesis results have been ratified, expected to be August 2024). The researcher (Sian Linford-Downes) will be responsible for the deletion of this data.

Participant Relationships

You have indicated that you do not know if you currently have or previously had a relationship with the potential participants. Please provide additional information.

Due to recruitment involving NHS mental healthcare staff members, and also having worked within NHS Mental Health teams myself over the last few years, there is a chance that I may know some of the participants within this capacity. However, due to not currently having much contact with them, there is not expected to be percieved pressure to participate.

Information about the Research

What are your dissemination plans? E.g publishing in PhD thesis, publishing in academic journal, presenting in a conference (talk or poster).

The research will be part of a PhD thesis, and we will be attempting to have this published in an academic journal. A one-page summary will also be produced for those that have given a contact email, summarising the findings of the research.

Online Sources

You have indicated site users have a reasonable expectation of privacy and therefore you will need to obtain consent to use their data for this project. Please explain how you propose to obtain consent.

In order to start the survey, participants will have to tick a box to show that they have understood information provided in the Participant Information Page and are consenting for the information to be used. Although not recorded in writing, this will be recorded by data
collection software (Qualtrics).
This will also be re-confirmed at the end of the survey after participants have been given access to the participant debrief sheet.

General Queries

You have stated that at least one member of the research team has links to the funder or organisations involved in this project. Please explain the relationship and how you will mitigate or manage this conflict of interest.

Staff members of the research team are or have previously been employed by the NHS, with the research also being conducted on NHS employees. Regular supervision focused on the research is being conducted regularly and will do so throughout the course of the research project, allowing an opportunity to explore and manage any potential conflicts of interest.

You have stated that there are other ethical considerations that have not been covered. Please explain what these other ethical considerations are, and how you would mitigate concerns regarding this research project.

There has been an ongoing discussion regarding whether or not HRA approval was required for the research project. Due to only recruiting participants via poster that will be shared within teams (and not specifically requiring members of staff to be identified as appropriate for the project), I was informed that I did not require HRA approval, as asking the poster to be disseminated is not a research activity. This was discussed between Sponsorship and FHM Research Support Teams. I was advised via email on 16.05.2023 that a new REAMS form would need to be submitted to allow my ethics to be processed in line with these requirement. The project has previously been reviewed and approved by the FHMREC (albeit pending HRA approval) under FHM-2023-2110-IRAS-2/FHM-2023-2110-MA-1.

The REAMS application is the new application in line with the advice received.

Data Storage

How long will you retain the research data?

As per the University's data storage policy, data will be stored for 10 years.
Identifiable data (emails) will be held until dissemination emails have been sent (once the thesis results have been ratified, expected to be August 2024).

How long and where will you store any personal and/or sensitive data?

Raw data files will be encrypted and securely stored on using a University approved cloud storage system. Access will only be given to those on the research team and only accessed as and when required. Once data has been uploaded to the secure storage system, it will be removed from the laptop/computer used for this purpose.

After the study has been completed, data will remain in the secure, approved cloud storage system, and access will only be given to the Principal Investigator and data custodian, in line with Lancaster University policy.
In line with publication requirements by peer-reviewed journals, raw data used for the analyses will be stored in a University Approved public repository (Pure)

Please explain when and how you will anonymise data and delete any identifiable record?

Once participants have consented to take part, they will be given a randomised, 5-digit identifier by the software. This will be the number that they give if the wish to withdraw they're data following submission.
Contact emails will not be anonymised, but participants will not be required to use a specific email address (e.g.; their NHS/work address), meaning that they can provide one that is anonymous if they wish. It will also be stored separately from the research data, meaning that it is not specifically associated with an identifiable part of the research data.
Email addresses will be deleted following dissemination emails being sent.
Personal information that constitutes part of the data set will be deleted after 10 years in line with Lancaster Universities data storage guidelines.

Project Documentation*

Important Notice about uploaded documents:

When your application has been reviewed if you are asked to make any changes to your uploaded documents please highlight the changes on the updated document(s) using the highlighter so that they are easy to see.

Please confirm that you have read and applied, where appropriate, the guidance on completing the Participant Information Sheet, Consent Form, and other related documents and that you followed the guidance in the help button for a quality check of these documents. For information and guidance, please use the relevant link below:

FST Ethics Webpage

FHM Ethics Webpage

FASS-LUMS Ethics Webpage

REAMS Webpage

☑ I confirm that I have followed the guidance.

n addition to completing this form you must submit all supporting materials.

Please indicate which of the following documents are appropriate for your project:

- ☐ I have no updated documents and confirm that all relevant documents were included in previous submissions.
- ☑ Advertising materials (posters, emails)
- ☑ Research Proposal (DClinPsy)
- ☑ Letters/emails of invitation to participate
- ☑ Consent forms
- ☑ Participant information sheet(s)
- ☐ Interview question guides
- ☐ Focus group scripts
- ☑ Questionnaires, surveys, demographic sheets
- ☐ Workshop guide(s)
- ☑ Debrief sheet(s)
- ☐ Transcription (confidentiality) agreement
- ☑ Other
- ☐ None of the above.

Please upload the documents in the correct sections below:

Please ensure these are the latest version of the documents to prevent the application being returned for corrections you have already made.

As you are in a DClinPsy course please upload your Research Proposal for this project.

Documents

Type Name	Document Name Date	File Version	Version Size		
Research Proposal	SLD Thesis Proposal Form KB signed 12 05 2022	SLD Thesis Proposal Form KB signed 12 05 2022.docx	22/05/2023	V1.1	70.2 KB

Please upload all consent forms to be used in this project.

Documents

Type	Document Name	File Name	Version Date	Version	Size

Consent Form	Draft Consent Form V3	Draft Consent Form V3.docx	27/02/2023	V3	29.2 KB

Please upload all Participant Information Sheets:

Documents

Type	Document Name	File Name	Version Date	Version	Size
Participant Information Sheet	Draft Information Sheet V2.2	Draft Information Sheet V2.2.docx	27/02/2023	V2.2	63.3 KB

ETHICS

Please upload all advertising materials (posters, emails)

Documents

Type	Document Name	File Name	Version Date	Version	Size
Advertising materials	Draft Advert V2.1	Draft Advert V2.1.docx	27/02/2023	V2.1	41.2 KB

Please upload all letter and emails to participate here:

Documents

Type	Document Name	File Name	Version Date	Version	Size
Letters/emails of invitation to Particpate	Draft Interest Email V1.1	Draft Interest Email V1.1.docx	06/03/2023	V1.1	11.9 KB

Please upload all Questionnaires, surveys, demographic sheets

Documents

Type	Document Name	File Name	Version Date	Version	Size
Questionnaires, surveys, demographic sheets	Qualtrics Survey Draft V2	Qualtrics Survey Draft V2.pdf	27/02/2023	V2	344.7 KB

Please upload a copy of your Debrief sheet.

Documents

Type	Document Name	File Name	Version Date	Version	Size
Debrief sheet	Draft Debrief Sheet V2.1	Draft Debrief Sheet V2.1.docx	27/02/2023	V2.1	87.7 KB

Please upload any other relevant documentation related to this project.

Documents

Type	Document Name	File Name	Version Date	Version	Size
Other	Research Protocol V1.1	Research Protocol V1.1.docx	07/03/2023	V1.1	23.3 KB

Declaration

Please Note

Research Services monitors projects entered into the online system, and may select projects for quality control.

All research at Lancaster university must comply with the LU data storage and governance guidance as well as the General Data Protection Regulation (GDPR) and the UK Data Protection Act 2018. (Data Protection Guidance webpage)

☑ I confirm that I have read and will comply with the LU Data Storage and Governance guidance and that my data use and storage plans comply with the General data Protection Regulation (GDPR) and the UK Data Protection Act 2018.

Have you that you have undertaken a health and safety risk assessment for your project through your departmental process? (Health and Safety Guidance)

☑ I have undertaken a health and safety assesment for your project through my departmental process, and where required will follow the appropriate guidance for the control and management of any foreseeable risks.

When you are satisfied that this application has been completed please click "Request" below to send this application to your supervisor for approval.

Signed: This form was signed by Dr Katy Bourne (k.bourne@lancaster.ac.uk) on 23/05/2023 09:07

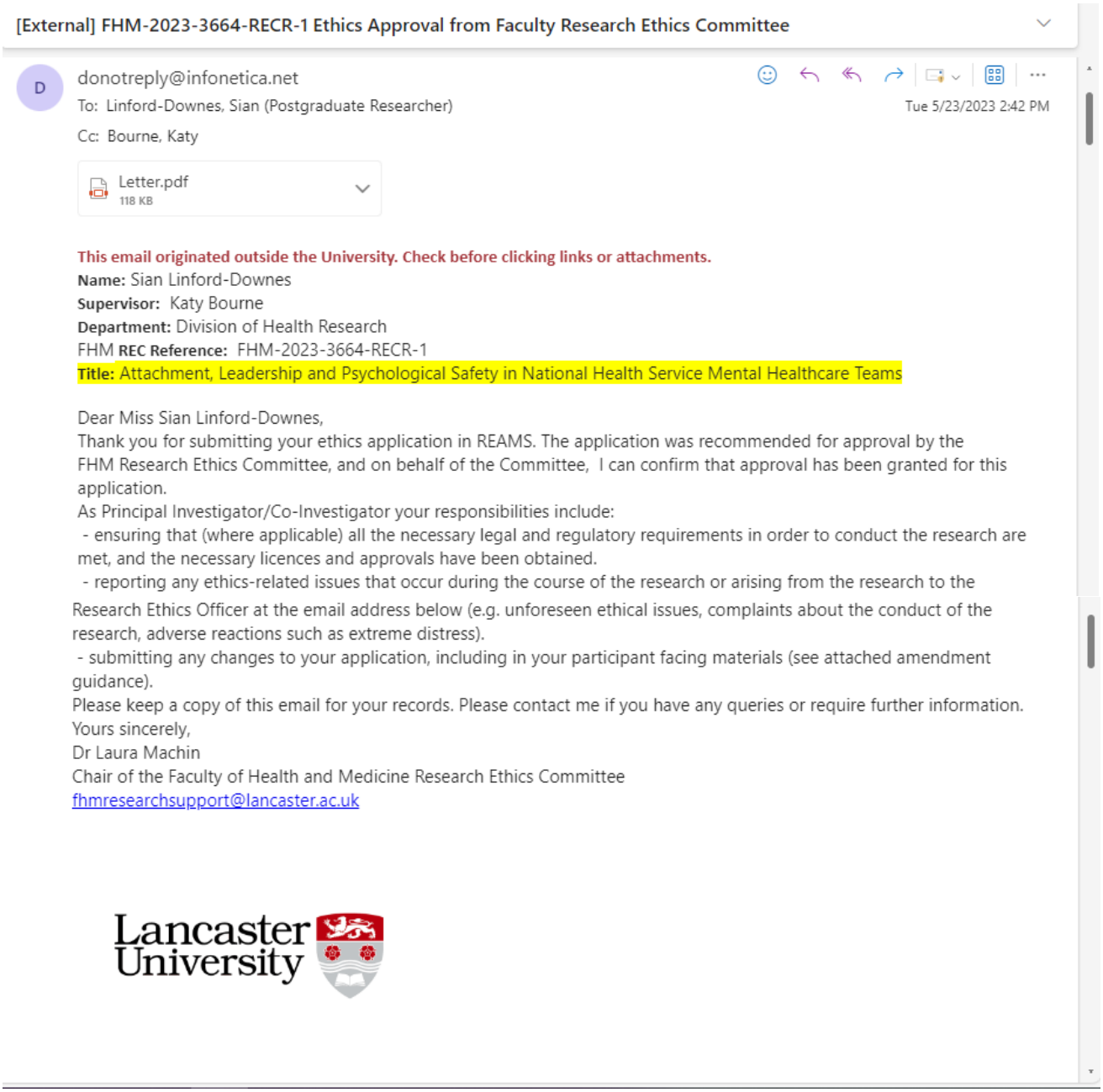
Please read the terms and conditions below:

- You have read and will abide by Lancaster University's Code of Practice and will ensure that all staff and students involved in the project will also abide by it.
- If appropriate a confidentiality agreement will be used.
- You will complete a data management plan with the Library if appropriate. Guidance from Library.
- You will provide your contact details, as well as those of either your supervisor (for students) or an appropriate person for complaints (such as HoD) to any participants with whom you interact, so they know whom to contact in case of questions or complaints?
- That University policy will be followed for secure storage of identifiable data on all portable devices and if necessary you will seek guidance from ISS.
- That you have completed the ISS Information Security training and passed the assessment.
- That you will abide by Lancaster University's lone working policy for field work if appropriate.
- On behalf of the institution you accept responsibility for the project in relation to promoting good research practice and the prevention of misconduct (including plagiarism and fabrication or misrepresentation of results).
- To the best of your knowledge the information you have provided is correct at the time of
- submission. If anything changes in your research project you will submit an amendment.

Applicant Only: To complete and submit this application please click "Sign" below:

Signed: This form was signed by Miss Sian Linford-Downes (s.linford-downes@lancaster.ac.uk) on 22/05/2023 18:11

Ethical Approval Letters



[External] FHM-2023-3664-RECR-1 Ethics Approval from Faculty Research Ethics Committee

D donotreply@infonetica.net

To: Linford-Downes, Sian (Postgraduate Researcher)

Cc: Bourne, Katy

Tue 5/23/2023 2:42 PM

Letter.pdf
118 KB

This email originated outside the University. Check before clicking links or attachments.

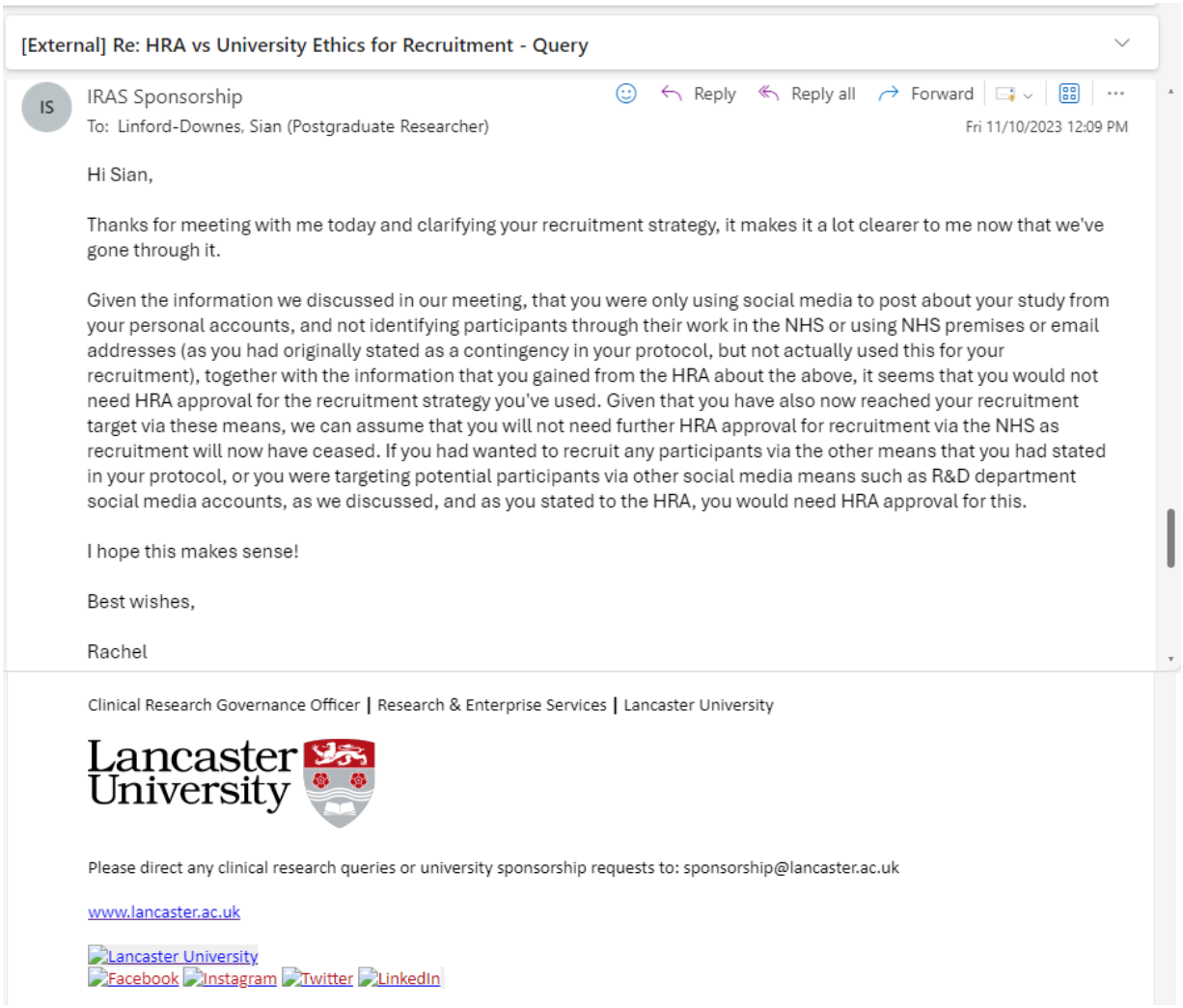
Name: Sian Linford-Downes
Supervisor: Katy Bourne
Department: Division of Health Research
FHM **REC Reference:** FHM-2023-3664-RECR-1
Title: Attachment, Leadership and Psychological Safety in National Health Service Mental Healthcare Teams

Dear Miss Sian Linford-Downes,
Thank you for submitting your ethics application in REAMS. The application was recommended for approval by the FHM Research Ethics Committee, and on behalf of the Committee, I can confirm that approval has been granted for this application.
As Principal Investigator/Co-Investigator your responsibilities include:
- ensuring that (where applicable) all the necessary legal and regulatory requirements in order to conduct the research are met, and the necessary licences and approvals have been obtained.
- reporting any ethics-related issues that occur during the course of the research or arising from the research to the Research Ethics Officer at the email address below (e.g. unforeseen ethical issues, complaints about the conduct of the research, adverse reactions such as extreme distress).
- submitting any changes to your application, including in your participant facing materials (see attached amendment guidance).
Please keep a copy of this email for your records. Please contact me if you have any queries or require further information.
Yours sincerely,
Dr Laura Machin
Chair of the Faculty of Health and Medicine Research Ethics Committee
fhmresearchsupport@lancaster.ac.uk

Lancaster University

ETHICS

Email Confirmation Regarding not Requiring HRA Ethical Approval



[External] Re: HRA vs University Ethics for Recruitment - Query

IS IRAS Sponsorship

Reply Reply all Forward

To: Linford-Downes, Sian (Postgraduate Researcher)

Fri 11/10/2023 12:09 PM

Hi Sian,

Thanks for meeting with me today and clarifying your recruitment strategy, it makes it a lot clearer to me now that we've gone through it.

Given the information we discussed in our meeting, that you were only using social media to post about your study from your personal accounts, and not identifying participants through their work in the NHS or using NHS premises or email addresses (as you had originally stated as a contingency in your protocol, but not actually used this for your recruitment), together with the information that you gained from the HRA about the above, it seems that you would not need HRA approval for the recruitment strategy you've used. Given that you have also now reached your recruitment target via these means, we can assume that you will not need further HRA approval for recruitment via the NHS as recruitment will now have ceased. If you had wanted to recruit any participants via the other means that you had stated in your protocol, or you were targeting potential participants via other social media means such as R&D department social media accounts, as we discussed, and as you stated to the HRA, you would need HRA approval for this.

I hope this makes sense!

Best wishes,

Rachel

Clinical Research Governance Officer | Research & Enterprise Services | Lancaster University

Lancaster University

Please direct any clinical research queries or university sponsorship requests to: sponsorship@lancaster.ac.uk

www.lancaster.ac.uk

Lancaster University

Facebook Instagram Twitter LinkedIn

Appendices

Appendix I: Research Proposal v1.1

Title

This should be a concise description of the study (max 15 words)

Factors Impacting on Psychological Safety in National Health Service Mental Healthcare Teams

Date of proposal submission

12th May 2022

Trainee Name

Sian Linford-Downes

Research Supervisor(s)

At least one of whom must be a member of the Lancaster University DClinPsy Research team (add more rows if you have more than two supervisors)

Name	**Job role**	**Organisation/Address**	**Supervisory role** e.g. indicate whether theoretical, methodological, clinical expertise
Katy Bourne	Research Supervisor	Lancaster University	Methodological

Research Supervisor approval

To be completed by the primary research supervisor.

Comments	
As this is not my clinical area of expertise, I am speaking with other members of the programme who are supervising similar areas/have a clinical interest about co-supervising projects together. In addition to this we are seeking a field supervisor, based on people who've held this role for similar projects in the past	
Name: Katy Bourne	**Date: 12 05 22**

Lay summary

A standalone 200 word summary of the study in non-specialist language. This should not include any references.

A 'psychologically safe' work environment is where a workplace feels safe enough for someone to take risks within relationships, without the fear of negative outcomes, such as people rejecting them. Research looking at psychological safety has focused on a number of areas, including factors that can help to develop a psychologically safe workplace. This has mainly focused on four areas, (relationships with others, relationships within groups, organisational norms and leadership factors) and has been done in lots of different industries. Healthcare is an area of interest due to the pressured environment that staff find themselves working in. Mental health can be emotionally difficult, with staff often finding themselves having to make complex, life-changing decisions for service users with unknown amounts of information. Despite this, there is very little research into factors that help create a psychologically safe environment within mental health care teams. The present study will aim to fill this gap, using an online questionnaire to look at people's experiences working as part of a team, specifically looking at experiences of managers and leaders, before looking at how these are linked to psychological safety.

Summary of the research

This should be a concise summary of your proposed research, providing a clear rationale for the study and the research design. It is not intended to be a fully developed protocol (as for an ethics application) but should provide sufficient detail to enable the reviewer to assess the robustness and feasibility of the proposal.

1. Brief background/rationale

This should be a 500-700 word justification for why the study should be conducted, including references to key theoretical, research and policy literature. It should not be a comprehensive literature review,

but should provide a clear rationale for your main research question(s) and for the relevance of the study to clinical psychology.

Psychological safety was a construct that was initially developed by Schein and Benis (1965), however it has not been until more recently that research in the area began to develop. These developments have led to a discussion around the definition of Psychological Safety, for example Kahn (1990) identified it as existing at the individual level. He highlighted that the individual's ability to express themselves and apply themselves to a situation without the fear of negative consequences impacted on the likelihood of an individual applying themselves fully to their role and engaging with changes. Further research by Edmondson (1999) identified that psychological safety can also occur at the group level, identifying it as "*a shared belief that the team is safe for interpersonal risk taking*" (Edmondson, 1999, p. 354). More recently, Baer and Frese (2003) have also identified psychological safety as an organisational level construct, meaning that it can be conceptualised at a range of different levels.

The importance of psychological safety can be seen in the outcomes of services where high levels of psychological safety have been identified. For example, Kahn (1990) identified that psychological safety was related to higher levels of work engagement (where individuals invest their own physical, cognitive, and emotional resources into their work), in addition to higher levels of satisfaction and commitment, factors which are known to impact on levels of voluntary turnover and organisational performance (Tett & Meyer, 1993). More recent research by Edmondson & Lei (2014) identified the role of psychological safety as a mediator in several different organisational outcomes, including information sharing and learning behaviours. Further research has also found that 'citizenship behaviours', such as whistleblowing, are mediated by psychological safety (Liu, Liao & Wei, 2015).

The importance of psychological safety as a key component in a healthy work environment is clear, and some research has attempted to investigate this in relation to healthcare settings. For example, psychological safety has been identified as being important to the innovation and refining of new approaches to the delivery of patient care (Lyman, et al, 2019). This supports other research in this area, which has found that the role of the team and other team members can have more of an influence in multiple disciplinary team decisions, whereas strong leadership may have more of an influence in time-limited, 'critical care' contexts (Remtulla et al 2021). Psychological safety is also something that has been shown to be critical during periods of transition from training to qualification. For example, Lyman, Gunn and Mendon (2020) found that newly qualified staff were more likely to adapt behaviours into their own professional practise that are culturally acceptable, including behaviours that are supportive of, and result from a culture of high psychological safety.

Psychological safety may be considered especially important in "high risk" environments such as mental healthcare. This is due to the number in different disciplines and professionals working together and coming from different training and personal backgrounds, in addition to the potential harm that may be caused by errors (Leroy et al, 2012). There is also some evidence of psychological safety being related to turnover intention; specifically in a range of mental health staff, including psychiatrists, psychologists, social workers, and Mental Health nurses (Yanchus et al, 2015).

The thesis will aim to look at the antecedents of psychological safety within a range of different mental healthcare settings, using Edmondson et al (1999)'s measure of psychological safety. Despite mental healthcare being potentially considered as a "high risk" environment, (Leroy et al, 2012), with regular difficult and interpersonally risky conversations occurring with both service users and other professionals (Hunt et al, 2021), there remains a lack of research in the area. Whilst there has been attempts to apply antecedents from the psychological safety literature to physical healthcare settings, this has yet to be conducted within mental healthcare settings. The findings from this

research may be applied to organisations at several levels to improve psychological safety within services, for example, informing interventions to support the development of psychologically safe environments within these settings, or giving an indication of services potentially at risk of low levels of psychological safety (based on antecedents identified) allowing for a preventative approach.

2. Research question(s)

This should be a brief statement of your main research question(s), following on from your rationale.

To investigate if the antecedents of psychological safety within mental healthcare settings are comparable with those within physical healthcare settings. Due to the length of the initial questionnaire, it was decided that the present study would focus only on leadership-based variables.

3. Study design/methodology

Please state your overarching methodological approach, with brief rationale.

The study will utilise a cross-sectional quantitative method, based on electronic/online self-report questionnaires. This is in order to test the relationships between the antecedent variables and psychological safety, rather than individual/teams experiences of these. The research is aiming to identify factors that significantly impact on psychological safety, and the percentage of the variance accounted for, this is not something that would be able to be appropriately captured using qualitative methods.

4. Participants

Who will your participants be? Inclusion/exclusion criteria? How many? Include justification of numbers and power calculation as appropriate.

Participants will include professionals working within a range of National Health Service (NHS) mental health services. In order to incorporate as wide a range of individuals from as wide a range of teams as possible, there will be no exclusion based on job role (although this data may be collected). Similarly, there will be no exclusion criteria based on WTE status (e.g.: full – or part-time), although again, this data may be collected. Those employed by NHS Scotland and Health and Social Care Northern Ireland will be excluded due to restrictions in Health Research Authority's jurisdiction in these countries.

GPower software was used to determine the minimum required sample size for the present study. Parameters were set with a medium effect size (0.15), and α level of 0.05. Minimum sample size determined was 129.

5. Recruitment plans

Where will you recruit participants from? How many recruitment sites? Recruitment methods?

Recruitment will be online via several different NHS Trusts within England and Wales (due to HRA approval restrictions within Scotland). Research and Development (or equivalent in Wales) will be approached to discuss whether they would be willing to allow the survey to be disseminated to their staff. Additionally, staff may be recruited via less formally structured avenues, such as social media, if the number of participants is lower than expected.

The online nature of the data collection is aimed at making the survey as accessible as possible to NHS staff, who may work from several bases or are working remotely.

6. Data collection

Interviews, questionnaires, specific measures to be used etc., with a brief rationale.

Data will be collected using self-report questionnaires for each variable. Specific measures used will be as follows:

- Psychological Safety – this will be measured using the 7-item survey developed by Edmondson (1999). Responses are given on a 7-point Likert scale ranging from 1 (*completely disagree*) to 7 (*completely agree*). This is a common measure that has been used within a

number of papers in the psychological safety literature, including those within healthcare. However, as discussed previously, the scale has yet to be used within mental healthcare teams.

- Leadership Behavioural Integrity – this will be measured using an 8-item measure of behavioural integrity from Simons et al (2007). Responses are again given on a 5-point Likert scale ranging from 5 *(strongly agree)* to 1 (*strongly disagree*).
- Hierarchy & Inclusiveness – Perceived communication accuracy and openness between management and other staff will be measured using two subscales (communication openness between doctors and nurses & communication accuracy between doctors and nurses) from Reader et al's (2007) study. Although already adapted, wording will be changed to make the scales applicable to a wider range of staff. There will be 7 items in total and these are scored on a 5 point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).
- Change-Orientated Leadership – this will be measured using six items from Yukl's (1999) framework of leadership styles that correspond to change orientated leadership. These items are also scored on a 5 point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).
- Leadership Support – this will be measured using the 'Supporting' subscale from the Managerial Practises Survey (MPS; Yukl et al 1990). These three items are also scored on a 5-point Likert scale to rate the extent the behaviour describes their manager, from 1 (*not at all/not applicable*) to 5 (*to a great extent*).

The questionnaire will also collect some demographic data, in order to control for individual factors known to have an impact on psychological safety (such as experience levels, length of time in current role) and to look at some of the factors that may have an impact (such as job role, WTE). Information collected will be;

- Age
- Gender Identity
- Job Role
- NHS Trust Employed by (option will be given of 'Prefer not to say')
- Full-time or Part-time WTE
- Length of time in current role
- Experience/Length of time in roles overall

7. Data analysis plan

Please state what methods of analysis you intend to use, with a brief rationale.

Based on the existing literature, a model of how different leadership-based, team level factors relate to psychological safety will be specified. A multiple regression analysis will then be used to determine if each leadership factor contributes to psychological safety within the team, and the percentage of the variance that each factor accounts for.

8. Research governance approvals

What ethical and other research governance approvals will the study need e.g. NHS/HRA, University Ethics, other?

It is expected that the present study will require University Ethics. It is expected that HRA approval will be needed, however NHS ethical approval will not, due to the use of staff members as participants rather than service users.

9. Particular research governance/ethical/practical/design issues

Please mention here any issues specific to the project that are likely to need particular consideration (e.g. risk issues, potential recruitment difficulties) and say how you plan to address them.

There may be a risk of not managing to get enough participants. If this occurs, alternative recruitment methods will be used, such as the recruitment of staff members via social media. Due to the length of the initial questionnaire, it was decided that the study would focus on leadership variables. This is in order to improve response rate (Iglesias & Torgerson, 2000), completion rate and data quality (Galesic & Bosnjak, 2009).

10. Service user/stakeholder involvement

How will you involve service users or other groups of people affected by the issue being researched (e.g. particular staff groups) in the design and conduct of the study? If you are not planning any involvement please give reasons.

The researchers will aim to discuss the survey with individuals working within mental healthcare teams at various levels, to discuss the feasibility of the study, whether the length of the survey seems reasonable and any potential barriers that may not have already been identified.

11. Estimated research costs

The programme has a limited amount of funds that can be used to support research expenses in some cases, subject to the approval of the Research Director. It is important that any cost implications of the research are considered. Please see the research expenses section of the programme handbook:

http://wp.lancs.ac.uk/dclinpsy/research-expenses/ for more information. Please use the below table to provide expected costs for the study.

Due to a predominantly online nature of the survey, is it not expected that any 'typical' expenses will be incurred.

12. Details in relation to unusual/large expenditure

If there are any either unusual or large items please list the amounts in the table and present a case in the text box below it. - Prize draw prizes (if difficulty with recruitment) – Up to £50

13. Case for the use of any unusual/large expenditure

If you have included any items in the above table please outline the case for this.

- None expected at present

14. Dissemination plans

Including plans to publish in academic journals, sharing summaries with participants etc

Summaries will be shared via R&D departments of various trusts involved in the research, and can then be disseminated publically, meaning that no identifiable data will need to be collected (e.g.; shared publicly via newsletter). The study will aim to be published in journals focused on mental health teams, staffing or systems, such as the '*Journal of Psychiatric and Mental Health Nursing',* '*International Journal of Mental Health Systems' and* '*Perspectives in Psychiatric Care'.*

15. Timetable for completing the study

It is expected that the study will be completed (with full write-up) by March 2024. This is on the basis of little/minimal problems with data collection, staff illness, and other potentially unforeseen issues. This can be broken down further as below;

June 2022 – Identify Field Supervisor & Complete Thesis Contract meeting.
July 2022 – Identify and apply to appropriate ethics committees.
September/October 2022 – Finalise ethical approval and submit for ethical approval. Decide topic for literature review.
January 2023 – Draft introduction and method for Systemic Review.
March 2023 – Begin data collection (latest point, will begin earlier if ethical approval comes through earlier).
April 2023 – Draft introduction and method for empirical paper.
July 2023 – Complete data collection & begin statistical analysis. Identify topic area for critical appraisal.
August 2023 – Review literature for systemic review.
September 2023 – Complete analysis of data.
October 2023 – Complete draft for results and discussion of Systemic Review.
November 2023 – Draft results and discussion for Empirical Paper.
January 2024 – Draft critical appraisal chapter.
February 2024 - Final drafts of other chapters.
March 2024 – Final formatting & submission.

16. References

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Appendix II: Recruitment Advert v2.1

Lancashire & South Cumbria NHS Foundation Trust

Lancaster University

What is it like working in your team?

Are you a member of staff working in an NHS England Mental Health Service? We're interested in hearing from you.

Can you spare some time to complete a survey on safety, attachment and leadership in mental health teams?

The survey will take no more than 20 minutes to complete, and any participation is voluntary. You will only need to complete the survey once.

You can participate even if you are leaving your current role or have only just started, all views are valuable!

For further information and to access the study, please follow this link;

https://lancasteruni.eu.qualtrics.com/jfe/form/SV_0rf9Jlq2G5hEEg6

Appendix III: Participant Information Sheet v2.2

Lancashire & South Cumbria NHS Foundation Trust

Lancaster University

Participant Information Sheet

Adult Attachment, Leadership Factors and Psychological Safety Within NHS Mental Health Teams

For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage: www.lancaster.ac.uk/research/data-protection

My name is Sian Linford-Downes and I am conducting this research as a student in the Clinical Psychology Doctorate (DClinPsy) at Lancaster University.

What is the study about?

The purpose of this study will look at people's experiences within close relationships, and also their experiences working as part of a team, specifically with managers and leaders. We are interested in how these are linked to psychological safety (where staff feel safe enough to take risks within staff relationships, without the fear of negative outcomes).

Why have I been approached?

For this project we are particularly interested in understanding psychological safety in mental health services, as little is known about this area. You have been approached because the study requires information from people who are currently working within NHS Mental Health Services across England.

Do I have to take part?

No. It's completely up to you to decide whether or not you take part. You can change your mind at any point about taking part. If this happens during the study, simply close the survey down and any partial data that has been collected will not be included as part of the project. If you change your mind once all of the information has been submitted, simply email the researcher using the address below, referencing the generated code given when you submit the questionnaire. They will use this code to locate your data and remove this from the dataset. Please note that this can only be done up until July 2023 as at this point the data analysis will have been started and data will not be able to be removed.

What will I be asked to do if I take part?

If you decide you would like to take part, you would be asked to complete a questionnaire on the next few pages. Please complete all of these questions in full before moving on to the next page. The full questionnaire consists of demographic information, 6 short questionnaires, and should take no longer than 20 minutes to complete.

Will my data be Identifiable?

The data collected for this study will be stored securely on a University approved secure cloud storage (OneDrive) and only the researchers conducting this study will have access to this data.

o The files on the computer will be encrypted (that is no-one other than the researcher and their supervisor will be able to access them) and the computer itself password protected.
o On submission of the data, you will be given a unique, automatically generated code. This should be kept safe and will only be used if you decide to withdraw consent after submission of your data. After July 2023, data analysis will begin and this code will no longer be available to the researchers.

What will happen to the results?

The results will be summarised and reported in a thesis and may be submitted for publication in an academic or professional journal. A brief summary will be presented to the Research and Development departments where participants have named the NHS Trust or Health Board has been named, for this to be added into local updates.

Are there any risks?

There are no risks anticipated with participating in this study. However, if you experience any distress following participation you are encouraged to inform the researcher and contact the resources provided at the end of this sheet.

Are there any benefits to taking part?

Although you may find participating interesting, there are no direct benefits in taking part.

Who has reviewed the project?

This study has been reviewed and approved by the Faculty of Health and Medicine Research Ethics Committee at Lancaster University and the Health Research Authority's (HRA) Research Ethics Committee.

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact the main researcher:
Sian Linford-Downes (Trainee Clinical Psychologist) – s.linford-downes@lancaster.ac.uk
Dr Katy Bourne (Clinical Psychologist, Thesis Supervisor) – k.bourne@lancaster.ac.uk

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, or wish to speak to someone outside of the Clinical Psychology Doctorate Programme, you may contact:

Dr Laura Machin Tel: +44 (0)1524 594973
Chair of FHM REC Email: l.machin@lancaster.ac.uk
Faculty of Health and Medicine
(Lancaster Medical School)
Lancaster University
Lancaster
LA1 4YG

Thank you for taking the time to read this information sheet.

Resources in the event of distress

Should you feel distressed either as a result of taking part, or in the future, the following resources may be helpful.

citizens advice

Citizens Advice offer advice about a huge range of different aspects of people's lives, including work.

Website; https://www.citizensadvice.org.uk/

acas working for everyone

ACAS offer free, impartial advice on workplace rights, workplace law and best practice. They can also help to resolve disputes in the workplace.

Website; https://www.acas.org.uk/

NHS England

You can also contact your NHS Trust's HR department using contact details available on the local intranet.

Appendix IV: Consent Form v3

CONSENT FORM

The next page will take you to the survey. You will be asked a set of questions about yourself and your job role. You will then be asked to complete six questionnaires about psychological safety, attachment styles, management styles and behaviours. The survey is expected to take about 20 minutes in total.

By giving consent below and moving to the next page, you are agreeing that;

- You have read and understand the participant information sheet for the above study. You are aware of how to contact the researchers if I have any more questions following the questionnaire.
- You understand that participation is voluntary. You are able to withdraw during the questionnaire by closing the browser window or afterwards by contacting the primary researcher with your unique identifier.
- You understand your responses will remain anonymous, and only you will be aware of your unique identifier. It is your responsibility to document this in a safe place should you wish to use it in future.
- You consent for the information you provide to be discussed with the research team.
- You consent to Lancaster University storing the anonymized data securely for a period of 10 years after the study has finished.

Please tick the box below to show that you have read and agree to the above terms;

☐ I have read and agree to the above terms and conditions

Appendix V: Questionnaire Package v2

Thesis Survey

Start of Block: Block 6

Q11 INSERT PARTICIPANT INFORMATION HERE

End of Block: Block 6

Start of Block: Block 7

Q12 INSERT CONSENT STATEMENT HERE

End of Block: Block 7

Start of Block: Block 6

Q8 This is your randomised ID number for the survey.

Please keep this unique identifier safe – you will be required to give this to researchers if you wish to withdraw after the data has been submitted.

${e://Field/Random%20ID}

End of Block: Block 6

Start of Block: Block 8

Q9 Please give your age;

- 18 - 24 (1)
- 25 - 34 (2)
- 35 - 44 (3)
- 45 - 54 (4)

- ○ 55 - 64 (5)
- ○ 65 - 74 (6)
- ○ 75 + (7)

Q10 Please give the gender with which you most identify;

○ Male (1) ○ Female (2) ○ Non-binary / third gender (3) ○ Other (4) ○ Prefer not to say (5)

Q11 What is your current profession? (e.g.; RMN, Support Worker, Psychologist).

_____

Q14 What setting do you currently work in? (Please select as many as needed)

- ☐ Child/Adolescent/Family (1)
- ☐ Adult (2)
- ☐ Older Adult (3)
- ☐ Inpatient (4)
- ☐ Community (5)
- ☐ Forensic (6)
- ☐ Improving Access to Psychological Therapy (IAPT) (7)
- ☐ Secondary Care (8)
- ☐ Other (please give details below) (9)

_____

Q15 Are you employed;

- Full time (1)
- Part time (2)

Q16 How long have you been in your current role?

_____

Q17 How long have you worked in this and related roles in total?

_____

End of Block: Block 8

Start of Block: Default Question Block

Q1 Please read the following statements carefully and indicate how much each one relates to the team in which you currently work. If you work across two or more teams, choose the one where you spend the most time. If your time is split evenly, choose one role and answer the rest of the questionnaire in relation to this one.

	Completely Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neither Agree nor Disagree (4)	Slightly Agree (5)	Agree (6)	Completely Agree (7)
If you make a mistake on this team, it is often held against you (1)	○	○	○	○	○	○	○

ETHICS

Members of this team are able to bring up problems and tough issues (2)	○	○	○	○	○	○	○
People on this team sometimes reject others for being different (3)	○	○	○	○	○	○	○
It is safe to take a risk on this team (4)	○	○	○	○	○	○	○
It is difficult to ask other members of this team for help (5)	○	○	○	○	○	○	○
Noone on this team would deliberately act in a way that undermines my efforts(6)	○	○	○	○	○	○	○
Working with members of this team, my skills and unique talents are valued and utilized (7)	○	○	○	○	○	○	○

Q2 These questions will be about management staff. Please read the following statements carefully and rate how much you think that they relate to your current manager. This can be either your clinical or line manager, but please use the same person for the rest of the questionnaire.

	Strongly Disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)
There is a match between my manager's words and actions (1)	○	○	○	○	○
My manager delivers on promises (2)	○	○	○	○	○
My manager practises what they preach (3)	○	○	○	○	○
My manager does what they say they will do (4)	○	○	○	○	○
My manager conducts themselves by the same values they talk about (5)	○	○	○	○	○
My manager shows the same priorities they describe (6)	○	○	○	○	○

ETHICS

If my manager promises something, I can be certain it will happen (7)	○	○	○	○	○
If my manager says they are going to do something, they will (8)	○	○	○	○	○

Q3 These questions will be about management staff. Please read the following statements carefully and rate how much you think that they relate to your current manager. This can be either your clinical or line manager, but please use the same person for the rest of the questionnaire.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
My manager provides encouragement and support when I have a difficult or stressful task (1)	○	○	○	○	○	○	○
My manager backs me up and supports me in difficult situations (2)	○	○	○	○	○	○	○

ETHICS

My manager gives me credit for helpful ideas and suggestions (3)	○	○	○	○	○	○	○
My manager consults with me to get my reactions and suggestions before making a decision that effects me (4)	○	○	○	○	○	○	○
My manager provides opportunities to develop my skills and show what I can do (5)	○	○	○	○	○	○	○
My manager expresses confidence in my ability to carry out a difficult task (6)	○	○	○	○	○	○	○

Q5 These questions will be about management staff. Please read the following statements carefully and rate how much you think that they relate to your current manager. This can be either your clinical or line manager, but please use the same person for the rest of the questionnaire.

	Not at all (1)	A little (2)	A moderate amount (3)	A lot (4)	Completely (5)
My manager is open to hearing new ideas (1)	○	○	○	○	○
My manager is attentive to new opportunities to improve work processes (2)	○	○	○	○	○
My manager is open to discussing the desired goals and new ways to achieve them (3)	○	○	○	○	○
My manager is available for consultation on problems (4)	○	○	○	○	○
My manager is an ongoing 'presence' in the team - someone who is readily available (5)	○	○	○	○	○
My manager is available to me when I want to consult with them (6)	○	○	○	○	○

ETHICS

My manager is ready to listen to my requests (7)	○	○	○	○	○
My manager encourages me to access them on emerging issues (8)	○	○	○	○	○
My manager is accessible for discussing emerging problems (9)	○	○	○	○	○

End of Block: Block 4

Start of Block: Block 10

Q19 INSERT DEBRIEF INFORMATION HERE

End of Block: Block 10

Start of Block: Block 9

Q18 We all differ in how we relate to other people. This questionnaire lists different thoughts, feelings and ways of behaving in relationships with others.

Thinking generally about how you relate to key people in your life, please identify how much each statement is like you. Key people can include family members, friends and partners.

There is no right or wrong answer.

	Not at all (1)	A little (2)	Quite a bit (3)	Very much (4)
I prefer not to let other people know my 'true' thoughts and feelings (1)	○	○	○	○

I find it easy to depend on other people for support with problems or difficult situations (2)	○	○	○	○
I tend to get upset, anxious or angry if other people are not there when I need them (3)	○	○	○	○
I usually discuss my problems and concerns with other people (4)	○	○	○	○
I worry that key people in my life won't be around in the future (5)	○	○	○	○
I frequently ask other people to reassure me that they care about me (6)	○	○	○	○
If other people disapprove of something I do, I get very upset (7)	○	○	○	○
I find it hard to accept help from other people when I am having problems or difficulties (8)	○	○	○	○
I frequently wonder whether I can trust other people (9)	○	○	○	○

I find it hard to believe that other people will be there for me if I need them (10)	○	○	○	○
I worry that if other people get to know me better, they won't like who I really am (11)	○	○	○	○
When I'm feeling stressed, I prefer being on my own to being in the company of other people (12)	○	○	○	○
I worry a lot about my relationships with other people (13)	○	○	○	○
I try to cope with stressful situations on my own (14)	○	○	○	○
I believe that other people will never be concerned about me (15)	○	○	○	○
I worry that if I displease other people, they won’t want to know me anymore (16)	○	○	○	○

End of Block: Block 9

Appendix VI; Participant Debrief Information v2.1

Lancashire & South Cumbria NHS Foundation Trust

Lancaster University

Participant Debrief Sheet

Leadership Factors, Adult Attachment and Psychological Safety Within NHS Mental Health Teams

Thank you for taking the time to complete this survey.

If you would like to be kept informed of the results of the study, please put a contact email address in the box below. This will be stored separately from the rest of the data, and will ONLY be used to send a report of the results. Once this email has been sent, the email address will be removed from our system.

This research explores the relationships between adult attachment styles, leadership styles, behaviours of managers, and the impact of these on staff feeling safe within the workplace. It is hoped that recommendations will be able to be made around how the workplace can be made to feel psychologically safe for staff. Findings of the study will be available on the Lancaster University research website and will also be sent to the participating trusts R&D departments on request.

If you feel you require any further support following taking part in this study, please consider contacting one of the following;

citizens advice

Citizens Advice offer advice about a huge range of different aspects of people's lives, including work.
Website; https://www.citizensadvice.org.uk/

acas working for everyone

ACAS offer free, impartial advice on workplace rights, workplace law and best practice. They can also help to resolve disputes in the workplace.
Website; https://www.acas.org.uk/

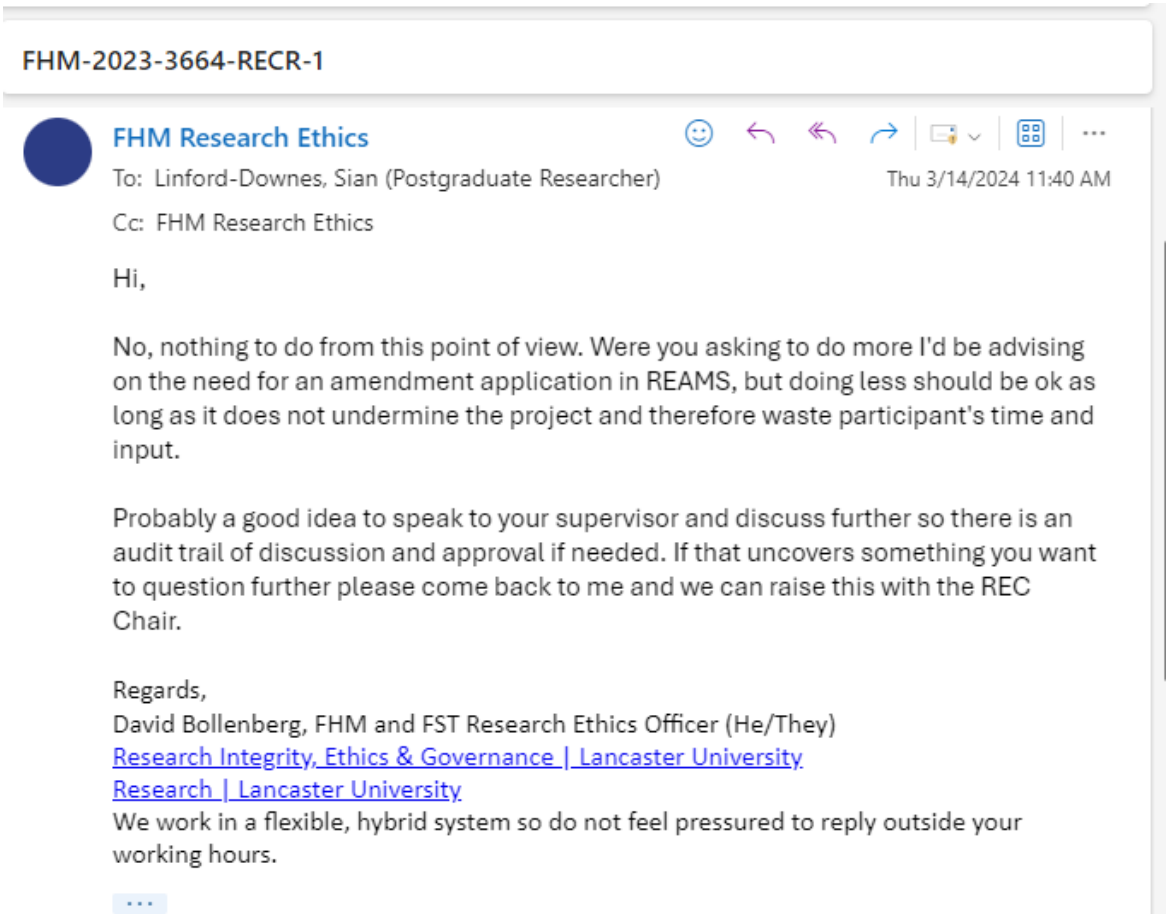
NHS England

You can also contact your NHS Trust's HR department using contact details available on the local intranet.

If you have any further questions or comments regarding the study, please contact the main researcher using the details below;

Sian Linford-Downes,
Trainee Clinical Psychologist, Lancaster University
s.linford-downes@lancaster.ac.uk

Appendix VII: Email Confirmation Regarding Missing Leadership Factor Measure



FHM-2023-3664-RECR-1

FHM Research Ethics

To: Linford-Downes, Sian (Postgraduate Researcher) Thu 3/14/2024 11:40 AM

Cc: FHM Research Ethics

Hi,

No, nothing to do from this point of view. Were you asking to do more I'd be advising on the need for an amendment application in REAMS, but doing less should be ok as long as it does not undermine the project and therefore waste participant's time and input.

Probably a good idea to speak to your supervisor and discuss further so there is an audit trail of discussion and approval if needed. If that uncovers something you want to question further please come back to me and we can raise this with the REC Chair.

Regards,
David Bollenberg, FHM and FST Research Ethics Officer (He/They)
Research Integrity, Ethics & Governance | Lancaster University
Research | Lancaster University
We work in a flexible, hybrid system so do not feel pressured to reply outside your working hours.

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