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Adult attachment dimensions in people high in ‘borderline’ personality traits and the professionals who work alongside them

By
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A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Clinical Psychology

Coventry University, Faculty of Health and Life Sciences,
University of Warwick, Department of Psychology

May 2016
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<td>Adult Attachment Interview</td>
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<tr>
<td>AAS</td>
<td>Adult Attachment Scale</td>
</tr>
<tr>
<td>aMBI</td>
<td>abbreviated Maslach Burnout Inventory</td>
</tr>
<tr>
<td>ASQ</td>
<td>Attachment Styles Questionnaire</td>
</tr>
<tr>
<td>BPD</td>
<td>Borderline Personality Disorder</td>
</tr>
<tr>
<td>BPQ</td>
<td>Borderline Personality Questionnaire</td>
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<tr>
<td>CAT</td>
<td>Cognitive Analytic Therapy</td>
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<tr>
<td>CBT</td>
<td>Cognitive Behavioural Therapy</td>
</tr>
<tr>
<td>CIC</td>
<td>Children in the Community study</td>
</tr>
<tr>
<td>D</td>
<td>Depersonalisation</td>
</tr>
<tr>
<td>DSM</td>
<td>Diagnostic and Statistical Manual of Mental Disorders</td>
</tr>
<tr>
<td>ECR</td>
<td>Experiences in Close Relationships</td>
</tr>
<tr>
<td>EE</td>
<td>Emotional Exhaustion</td>
</tr>
<tr>
<td>EUPD</td>
<td>Emotionally Unstable Personality Disorder</td>
</tr>
<tr>
<td>ICD</td>
<td>International Classification of Diseases</td>
</tr>
<tr>
<td>IPDE</td>
<td>International Personality Disorder Examination</td>
</tr>
<tr>
<td>IPV</td>
<td>Intimate Partner Violence</td>
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<td>MBT</td>
<td>Mentalization Based Therapy</td>
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<td>MCMI-III</td>
<td>Millon Clinical Multiaxial Inventory, third edition</td>
</tr>
<tr>
<td>MSI-BPD</td>
<td>McClean Screening Instrument for BPD</td>
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<tr>
<td>NCCMH</td>
<td>National Collaborating Centre for Mental Health</td>
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<tr>
<td>NHS</td>
<td>National Health Service</td>
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<tr>
<td>NICE</td>
<td>National Institute for Health and Clinical Excellence</td>
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<td>PA</td>
<td>Personal Accomplishment</td>
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<td>PDQ</td>
<td>Personality Diagnostic Questionnaire</td>
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<td>PRISMA</td>
<td>Preferred Reporting Items for Systematic Reviews and Meta-Analyses</td>
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<td>PRP</td>
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I have also been provided with help, support and refreshments both at work and home. I would like to thank my supervisors and colleagues on placement for talking through ideas with me. Thank you also to Helen, my wife, and all my family and friends for enduring these times and always providing guidance and distraction.

I feel it would be remiss to not acknowledge the wider sets of individuals and structures which have enabled me to write this piece of work. This includes the supporters of my supporters. However, I also understand the great privilege which has allowed me this position, privilege which has not been earned but bestowed merely on the basis of my socio-demographic situation and provided life experiences (things which many people, often including those clients we work alongside, have not been provided with).
Declaration

This thesis has not been submitted for any other degree at any other university. It has been prepared under the academic supervision of Dr Tom Patterson (Academic Director, Coventry and Warwick Clinical Psychology Doctorate) and Dr Ian Hume (Senior Lecturer in Clinical Psychology, Coventry and Warwick Clinical Psychology Doctorate). Both supervisors provided support in research design and analysis, offering feedback and comments at each stage of the project. Apart from these stated collaborations, all material presented in this thesis is my own work.

The literature review paper has been prepared for submission to Clinical Psychology Review. The empirical paper has been prepared for submission to Clinical Psychology and Psychotherapy. The final chapter, the reflective paper, has been prepared for submission to Reflective Practice: International and Multidisciplinary Perspectives.
Summary

This thesis consists of three chapters: a literature review, an empirical and a reflective paper. The literature review and empirical papers investigate adult social attachment dimensions in specific samples (those with high levels of ‘borderline’ traits, and professionals who work alongside these individuals).

The literature review paper aimed to investigate the relationship between a specific operationalised definition of attachment (adult attachment dimensions) and ‘borderline’ traits. A quantitative analysis of the effect sizes between the variables as well as a narrative synthesis which considers inter-related variables were conducted. Both attachment dimensions were significantly related to ‘borderline’ traits, with ‘attachment anxiety’ having a stronger relationship. The results are considered alongside other intra- and interpersonal variables presented in the literature. A descriptive model of the literature is provided and the review, as well as the literature, is critiqued, with future research, clinical and policy directions suggested.

The empirical paper investigated the effect of clinician attachment dimensions and their levels of ‘burnout’ on their endorsed response to a vignette of a client in crisis. The study employed a questionnaire survey design to measure attachment dimensions and ‘burnout’ constructs. Bivariate, point-biserial and partial correlations were used to test models where ‘burnout’ constructs mediated the relationship between attachment and endorsed ‘response urgency’ to the vignette. Greater levels of urgency among staff with high ‘attachment anxiety’ were suppressed by greater levels of ‘depersonalisation’. The findings are discussed in the context of previous healthcare and childcare research and the limitations of the research design. Recommendations for clinicians, policy makers and researchers are suggested.

The reflective paper uses a repertory grid technique to explore the way I construe the role of researcher in clinical psychology. The grid was administered at two time-points and changes through the thesis research process are discussed with reference to my values and epistemological position.
Chapter One

Adult attachment dimensions and ‘borderline’ traits: a systematic review and meta-analysis

Word count (excluding titles, tables, references and footnotes): 7970

Paper prepared for submission to Clinical Psychology Review (see Appendix A for notes to contributors)
1.1. Highlights

- Provides evidence for the relationship between adult attachment dimensions and ‘borderline’ traits.
- Literature highlights a number of mediating and associated intrapersonal variables in the attachment-‘borderline’ relationship.
- Current literature limited by the dearth of research investigating the influence of environmental/material variables in the relationship.

1.2. Abstract

The present review aimed to critically evaluate the relationship between adult attachment dimensions and ‘borderline’ traits. Study findings were synthesised both qualitatively and quantitatively (using meta-analysis). Meta-analytic results identified both attachment dimensions as significantly related to ‘borderline’ traits. ‘Attachment anxiety’ had a stronger relationship. Narrative synthesis identified a number of mediation models including attachment dimensions and ‘borderline’ traits, as well as a role for the two constructs in relational difficulties. The validity and clinical utility of attachment dimensions for differential diagnosis is discussed. While the relationship between attachment constructs and ‘borderline’ traits has been well established, the present review builds on this by identifying the relationship within a strictly operationalised definition of attachment. Limitations of the identified studies and review methodology (particularly pertaining to homogeneity of studies in the meta-analysis) are considered alongside recommendations for future research. Recommendations for
intervention at different levels is discussed, both for clinicians and policy makers.

1.3. Keywords
Borderline; attachment dimensions; meta-analysis

1.4. Introduction
The term ‘borderline’ was coined by psychoanalysts to describe traits which fell on the border between neurosis and psychosis. Kernberg (1968) provided one of the first operational definitions when he described the ‘Borderline Personality Organisation’. This was a personality characterised by primitive defense mechanisms such as splitting and projective identification. Kernberg recognised early abandonment and maltreatment played a causal role in the development of ‘borderline’ traits.

Descriptions of ‘borderline’ traits have been further articulated in the International Classifications of Diseases (ICD) (under the label ‘Emotionally Unstable Personality Disorder’, EUPD) and the Diagnostic and Statistical Manual of Mental Disorders (under the label of ‘Borderline Personality Disorder’, BPD) projects. In the Diagnostic and Statistical Manual of Mental Disorders (5th Edition, DSM5) the American Psychiatric Association (2013) stated that BPD is characterised by “a pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity” (p.663).
The definitions provided in DSM5 and ICD-10 (World Health Organization, 1992) are not uncontroversial. Both provide a categorical explanation, wherein BPD is viewed as a pathological disease state which individuals either have or do not have. This is increasingly inconsistent with psychological personality theories which understand the constructs dimensionally. This criticism has been considered by both project teams. Indeed, the DSM5 includes an appended dimensional model of personality difficulty. It is understood the forthcoming ICD-11 will use a fully dimensional model (Tyrer, Reed & Crawford, 2015).

However, a potentially more unassailable criticism of both projects has been the lack of any explanatory model for BPD (or indeed any of the other proposed ‘mental disorders’). While DSM5 does state the increased incidence of childhood maltreatment in people receiving a diagnosis, it does not explain how the two phenomena may be related. In addition, while the DSM5 does cite heritability studies as providing evidence for genetic vulnerability it fails to explain how environmental factors can be controlled for in such studies (including in utero experiences).

DSM5 does make clear the centrality of people’s attempts to avoid and escape experiences of abandonment. It is on the basis of this experience and the relational element within most of the described phenomena that an Attachment Theory understanding of ‘borderline’ traits has developed.
Bowlby (1969) proposed that attachments formed in early infancy provide an evolutionary survival strategy through care elicitation. The nature of these attachments go on to serve as a template for future relationships, templates represented as ‘Internal Working Models’. Ainsworth, Blehar, Waters and Wall (1978) described a number of categorical attachment patterns in infancy. While Bowlby’s original theory was based on mother-infant interaction, it was conceived as a life course model. This focus was more fully developed by Hazan and Shaver (1987), and later elaborated by Bartholomew (1990). These authors identified different adult attachment styles occurring in romantic relationships, which were derived from childhood styles and experiences. Adults were classified as ‘secure’ (“comfortable with intimacy”), ‘dismissing’ (“denial of attachment”), ‘preoccupied’ (“overly dependent”), and ‘fearful’ (“fear of attachment”), (Bartholomew, 1990, p.163).

A range of other categorical understandings have arisen since, reflecting significant diversity across adult attachment theories (e.g. Crittenden & Claussen, 2003; George, Kaplan & Main, 1985). A number of these theories have been applied to try to understand ‘borderline’ traits. These models are often based on the concept of people falling into specific categorical attachment styles (Agrawal, Gunderson, Holmes, & Lyons-Ruth, 2004; Fonagy, Target, Gergely, Allen, & Bateman, 2003). Agrawal and colleagues provided a review of the research, but reported that its findings were limited by the diverse manner in which attachment had been operationalised.
In contrast to and supplementing categorical models, a two dimensional model of adult attachment has been proposed by Bartholomew (1990). These two dimensions are referred to as ‘model of self’/’attachment anxiety’ and ‘model of other’/’attachment avoidance’. The different terms for each dimension are largely synonymous, for the purpose of the present paper, the terms ‘anxiety’ and ‘avoidance’ will be used. The two constructs are orthogonal to one another. In a large-scale questionnaire-based study of adult attachment dimensions by Brennan, Clark and Shaver (1998), factor analysis revealed a two dimensional model best fit the data: ‘attachment anxiety’ (high levels being associated with high need for care from others) and ‘attachment avoidance’ (high levels being associated with self-reliance and avoidance of care from others). In this sense, high levels of ‘attachment anxiety’ indicate low expectations on self for care and high levels of ‘attachment avoidance’ represent low expectations on others for care.

These dimensions correspond to adult attachment categories. Low scores on both dimensions represent a ‘secure’ style. High scores on ‘attachment anxiety’, but low scores on ‘avoidance’ indicate a ‘preoccupied’ style. The opposite patterns suggests a ‘dismissing’ style, while high scores on both dimensions indicates a ‘fearful’ style. Dimensional and categorical models are not inconsistent. However, Fraley and Waller (1998), using taxometric analysis, identified that adult attachment data better represented latent
dimensions rather than latent types/categories. That is, individual differences in attachment are better understood as continuous rather than nominal.

There is evidence that attachment representations may have an explanatory role in understanding ‘borderline’ experiences (Agrawal et al., 2004). However, attachment has not been consistently operationalised in the research literature. To better understand the relationship between attachment and ‘borderline’ experiences a review could consider one specific operational definition of attachment. Of relevance to this, there is evidence that the adult attachment dimensions proposed by Brennan and colleagues (1998) are a more valid form of measurement than traditional categorical models.

When aiming to consider the relationship between attachment dimensions and ‘borderline’ traits researchers are faced with the further dilemma of ‘borderline’ operationalisation. It is increasingly understood that, like attachment insecurity, personality difficulties also occur on a dimension. Rather than individuals having ‘borderline’ traits or not, it is more valid to consider the extent of the traits. For this reason, it would be acceptable and useful to draw on all empirical literature investigating the attachment-‘borderline’ relationship: literature using both clinical and non-clinical samples. Diagnostic manuals currently provide clinicians and service users with a clear description of difficulties. However, these descriptions do not provide explanation. To further our understanding in this area, the ability of
this research to provide meaningful explanation and to inform intervention needs to be considered.

1.4.1. Aim

The present review aims to critically evaluate existing empirical evidence regarding the relationship between attachment dimensions and ‘borderline’ traits. In line with this aim, two specific questions will be asked:

1) *What is the relationship between ‘borderline’ traits and attachment dimensions?*

2) *What is the clinical utility of attachment dimensions for understanding ‘borderline’ traits?*

1.5. Method

1.5.1. Literature search

1.5.1.1. Search process

A systematic literature search was conducted to find empirical studies investigating the relationship between ‘borderline’ traits and attachment dimensions, with the final formal database search conducted on 23\textsuperscript{rd} October 2015. Databases hosting journals with a psychology and/or mental health focus were searched: PsychINFO, MedLine, ASSIA and Web of Knowledge. Reference lists and citation reports of papers selected for review were manually searched for further literature.
1.5.1.2. Search terms

Table 1 presents the main concepts and synonyms used to conduct the search. An initial search revealed that the term “attachment dimensions” was too narrow and omitted useful literature. Therefore the broader term, “attachment”, was used. “Model of self” and “model of other*” were also searched as synonyms to “attachment anxiety” and “attachment avoidance”. In addition, the name and abbreviations of the two main measures of attachment dimensions (“Experiences in Close Relationships” and the revised version of the measure) were searched as synonyms.

The second concept search was “borderline”. The two diagnostic labels (“borderline personality disorder” and “emotionally unstable personality disorder”) and their abbreviations were searched. Additionally, the more trait focused “emotionally unstable” was also searched. Article titles and abstracts were searched for the two concepts.
Table 1: Key search terms

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<td>Title</td>
</tr>
<tr>
<td></td>
<td>“model of other*”</td>
<td>Abstract</td>
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<td></td>
<td>“Experiences in Close Relationships”</td>
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<tr>
<td>‘Borderline’</td>
<td>“borderline personality disorder”</td>
<td>Title</td>
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<td></td>
<td>BPD</td>
<td>Abstract</td>
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<td></td>
<td>“emotionally unstable”</td>
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<tr>
<td></td>
<td>“emotionally unstable personality disorder”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EUPD*</td>
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</tbody>
</table>

1.5.1.3. Search strategy

The search strategy employed Boolean operators. Concept synonyms were separated by the OR operator and the two concepts were separated by AND. The * operator was used with “model of other*” where plural was possible and EUPD* where subtypes are sometimes appended.

1.5.2. Selection criteria

Search results underwent screening according to inclusion and exclusion criteria (Table 2). Initially, duplicates were removed and titles and abstracts were screened to check that articles met the inclusion/exclusion criteria. Only peer-reviewed articles were included to ensure quality of studies included in
the present review. Articles which were published before attachment dimensions were fully operationalised (Griffin & Bartholomew, 1994) were excluded, as were non-English language texts.

Articles where the full-text was accessible were then fully screened. Articles where the relationship between attachment dimensions and 'borderline' traits were discussed were included. Any articles where attachment dimensions were only used to control for difference, and where the relationship was not discussed, were excluded.

| Table 2: Inclusion/Exclusion criteria |
|-----------------------------|-----------------------------|
| **Criteria**              | **Inclusion**                          | **Exclusion**                          |
| Attachment variable       | Measuring ‘attachment avoidance’ and ‘attachment anxiety’ dimensions | Attachment dimensions are only used to control for effect |
| Relationship between variables | Relationship between attachment dimensions and ‘borderline’ traits discussed | Where the relationship between the two variables is not discussed |
| Document type             | Peer-reviewed journal article        | Any non-peer-reviewed journal article (e.g. book chapter, unpublished thesis, conference proceedings etc.) |
| Time                      | Post-1994                            | Pre-1994                                |
| Language                  | Full-text English language           | Non-English language                    |
| Accessibility             | Copy of article accessible via institutional library/inter-library loan | Not accessible to principal researcher |
1.5.3. Quality assessment procedure

Caldwell, Henshaw and Taylor’s (2011) quality assessment framework was used to screen the quality of the 21 selected studies. It was chosen because it has been designed to assess all aspects of a paper and provides concrete descriptors to aid inter-rater reliability. Caldwell and colleagues’ tool is widely used in health literature reviews (e.g. Hobbs, 2015; Rodolfo, Hoga, Reis-Queiroz & Jamas, 2015). The framework consists of 16 items. Each quality criterion was rated on a three point scale (0 = not met, 1 = partially met, 2 = fully met). Percentage compliance with the criteria was then calculated.

Article ratings can be found in Appendix B. Following quality assessment, one paper, with a criteria compliance of 43.8%, was removed (Ling & Qian, 2010). It did not include an up-to-date review of the literature and failed to comprehensively display or discuss the findings.

All selected studies were assessed. A second reviewer independently assessed two of the papers (Bartz et al., 2011; MacDonald, Berlow, & Thomas, 2013) to test rating reliability. Analysis of inter-rater reliability indicated ‘substantial’ agreement (kappa=0.68) between raters (Landis & Koch, 1977).

1.5.4. Data extraction

A data extraction form was developed. Appendix C shows a completed form. The form included full references, aims/hypotheses, study design, measures,
pertinent results, clinical, theoretical and research implications, study limitations, quality assessment and space to record information pertinent to the current research questions.

1.5.5. **Data synthesis and statistical analysis**

1.5.5.1. **Quantitative synthesis**

To answer question one meta-analyses were conducted examining the effect of the relationship between ‘borderline’ variables and attachment dimension variables. Full details of the meta-analytic procedure are provided in Appendix T. Firstly effect sizes were extracted (or estimated where not reported in the full-text). For between group difference designs (e.g. using t-tests) Cohen’s $d$ was calculated. For correlational designs, Pearson’s $r$ was calculated. As $d$ is sensitive to differences of sample size (Rosenthal, 1991), all effect sizes were converted into $r$ for analysis. Each $r$ was then converted into Fisher’s $r$ to create a normal distribution. The individual Fisher’s $r$ scores were summed and converted back to $r$ to provide a combined effect size for the studies. The significance of the effect was calculated using the Stouffer method. A standard $Z$ score was calculated for each study’s effect. The sum of these $Z$ scores was divided by the square root of the number of comparisons. This provided a Stouffer $Z$ statistic, representing the statistical significance of the combined effect.

There was heterogeneity of sample characteristics used across the thirteen studies. Thus tests of homogeneity were conducted to consider whether,
despite the heterogeneity of samples, the effect remained static. In this way, the universality of effect across populations could be tested. This was conducted by computing a chi-square statistic, analysing variance in the effect sizes.

1.5.5.2. Narrative synthesis

Study results of the 20 records were also qualitatively examined. Pertinent findings and their implications were thematically organised according to concepts which helped to answer the research questions.

1.6. Results

1.6.1. Classification of studies

Study selection followed the ‘Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA)’ guidelines. The process of study selection is set out in the PRISMA flow diagram (Appendix D). The literature search identified 1534 records. 572 records were identified as duplicates and removed. Initial title and abstract screening excluded 901 records, leaving 61 for full-text screening. Of these, 41 records were excluded due to not meeting the inclusion criteria or failing to be of sufficient quality to ensure reliability and validity of results. The remaining 20 studies were included for narrative synthesis. Citation and reference searches of these papers returned no further literature. 12 of these papers (one paper reporting two studies) reported sufficient statistical analyses to be included for quantitative synthesis. Throughout, the quality of the research was assessed and is
considered across the results and summarised in an appraisal of research limitations.

1.6.2. Characteristics of studies

The characteristics of the included studies are detailed in Table 3.

1.6.2.1. Location

The majority of studies were conducted in North America, with 13 from the USA and two from Canada. Of the remaining studies, two were conducted in Australia, one in the UK and two in other parts of Europe.

1.6.2.2. Design

All but two of the studies used a cross-sectional design, employing a questionnaire-based survey methodology. Bartz and colleagues (2011) was an experimental design. There were two independent variables, each with two levels (received BPD diagnosis versus control, and administered oxytocin versus placebo). The final study (Crawford, Cohen, Chen, Anglin & Ehresnaft, 2009) was a longitudinal study investigating the impact of a range of variables on the course of ‘borderline’ traits.

1.6.2.3. Sample

Six studies used a sample of people who had received a diagnosis of BPD compared to a control sample (Bartz et al., 2011; Bouchard, Godbout &
Sabourin, 2009a; Bouchard, Sabourin, Lussier & Villeneuve, 2009b; Deborde et al., 2012; Minzenberg, Poole & Vinogradov, 2006; Minzenberg, Poole & Vinogradov, 2008). Four studies used a sample of people from psychiatric settings who had received diverse diagnoses. One of these samples also included participants from the general population (Beeney, et al., 2015), while the other three only included people in contact with psychiatric services (Fossati et al., 2003; MacDonald et al., 2013; Riggs et al., 2007). Three studies used an undergraduate student sample (Boldero et al., 2009; Meyer, Pilkonis & Beevers, 2004; Scott, Levy & Pincus, 2009). Three studies recruited forensic samples. Two of these were men who had committed intimate partner violence (Lawson & Brossart, 2013; Mauricio, Tein & Lopez, 2007), while the other recruited females serving a custodial sentence (McKeown, 2014). Two studies used a sample consisting only of people who had received a diagnosis of BPD (Critchfield, Levy, Clarkin & Kernberg, 2008; Levy, Meehan, Weber, Reynoso & Clarkin, 2005). One study compared people who had received a diagnosis of BPD and people with a diagnosis of ‘major depressive disorder’ (Hulbert, Jennings, Jackson & Chanen, 2009). The final study recruited children in the general population and collected data longitudinally (Crawford et al. 2009).

Sample sizes across studies were variable. Studies with student samples tended to have larger sample sizes. Bartz and colleagues (2011) had the smallest sample size in the review, with 27 participants. Scott and colleagues (2009) had the largest sample, recruiting 1401 undergraduate students.
1.6.2.4. Measure of attachment

11 of the studies (Bartz et al., 2011; Boldero, et al., 2009; Bouchard et al., 2009a; Bouchard et al., 2009b; Critchfield et al., 2008; Hulbert et al., 2009; Mauricio et al., 2007; Meyer et al., 2004; Minzenberg et al., 2006; Minzenberg et al., 2008; Riggs et al., 2007) measured attachment dimensions using the Experiences in Close Relationships (ECR) questionnaire (Brennan, Clark & Shaver, 1998). The ECR is a 36-item questionnaire. Items are rated on a 7-point scale on the extent to which they described participants' experiences. The ECR has high Cronbach’s alpha scores for each of the two scales.

Four of the studies (Beeney et al., 2015; MacDonald et al. 2013; McKeown, 2014; Scott et al., 2009) used the revised version of the ECR (ECR-R) (Fraley, Waller & Brennan, 2000). Again, this scale has 36 items rated the same as the ECR. The ECR-R was developed from the same 300 questions as the ECR. Fraley and colleagues used Item Response Theory in an attempt to improve the validity of the questionnaire. Like the ECR, the ECR-R has high Cronbach’s alpha scores.

Of the four remaining studies each used a different measure. Crawford and colleagues (2009) used a measure specifically developed for the research, the Children in the Community (CIC) attachment scales (Crawford et al., 2006). The CIC attachment scales have convergent validity with the ECR.
Deborde and colleagues (2012) used the Relationships Style Questionnaire (RSQ) (Bartholomew & Horowitz, 1991). The RSQ has demonstrated good construct, convergent and discriminant validity (Bartholomew & Horowitz, 1991). Fosatti and colleagues (2003) used the Attachment Styles Questionnaire (ASQ) (Feeney, Noller & Hanrahan, 1994). While traditionally used to measure a categorical attachment model, Fosatti and colleagues subjected the data to canonical correlation, from which two canonical variates representing ‘attachment anxiety’ and ‘attachment avoidance’ arose. Finally, Lawson and Brossart (2013) used the Adult Attachment Scale (AAS) (Collins & Read, 1990). The AAS consists of three subscales: comfort with depending on others, comfort with closeness and ‘attachment anxiety’. The first two subscales can be combined to form a single ‘attachment avoidance’ scale.

The final study, Levy and colleagues (2005), uses three attachment measures: the ECR, RSQ and the Relationships Questionnaire (RQ) (Borman & Cole, 1993). The RQ is a brief measure consisting of four vignettes, each representing four categorical attachment styles. Participants are asked to choose which best represents them and rate each on a 7-point scale according to how much they feel they are consistent with themselves. Levy and colleagues used the items from these four measures to conduct a principal components analysis to test the two factor model of attachment dimensions.
1.6.2.5. Measure of ‘borderline’

Nine studies measured ‘borderline’ traits as a nominal variable comparing people receiving a diagnosis of BPD versus those who did not. Six of these studies (Bartz et al., 2011; Bouchard et al., 2009a; Bouchard et al., 2009b; Hulbert et al., 2011; Minzenberg et al., 2006; Minzenberg et al. 2008) classified participants using the Structured Clinical Interview for DSM-IV Personality (SCID-II) (First, Spitzer, Gibbon, Williams & Benjamin, 1994). Two studies, Critchfield and colleagues (2008) and Levy and colleagues (2005), nominally classified participants using the International Personality Disorder Examination (IPDE) (Loranger, 1999).

One other study categorised participants diagnostically. Deborde and colleagues (2012), used the Structured Interview for DSM-IV Personality Disorders (SIDP-IV) (Pfohl, Blum & Zimmerman, 1997). The SCID-II, IPDE and SIDP-IV are all administered by trained raters with their items directly corresponding to DSM-IV diagnostic criteria. All three interviews have good psychometric properties. Deborde and colleagues also measured ‘borderline’ traits dimensionally. Dimensional scores were calculated by summing SIDP-IV item scores, with each item being rated on a four-point scale.

The other 11 studies measured ‘borderline’ traits solely using dimensional scales. Beeney and colleagues (2015) constructed a dimensional scale by summing scores from the SIDP-IV. Two studies (Lawson & Brossart, 2013; Riggs et al., 2007) provided dimensional scores using the Millon Clinical
Multiaxial Inventory, third edition (MCMI-III) (Millon, 1994). The MCMI-III has good psychometric properties and its scales correspond to DSM-IV. Two studies used the Personality Diagnostic Questionnaire (PDQ). Crawford and colleagues (2009) adapted items for adolescents from the original PDQ (Hyler, Rieder, Spitzer & Williams, 1982), while Mauricio and colleagues (2007) used the revised version (PDQ-R) (Hyler et al., 1988). The PDQ has good psychometric properties. While it was not designed as a diagnostic tool, the scales do correspond with diagnostic categories in the DSM-IV. Two studies used elements of the SCID-II to record dimensional ‘borderline’ scores. Fossati and colleagues (2003) created severity scores by summing criteria, while Meyer and colleagues (2004) used the SCID-II screening questionnaire.

The four remaining studies each used different measures. Boldero and colleagues (2009) measured ‘borderline’ traits using the Borderline Personality Questionnaire (BPQ) (Poreh et al., 2006). The BPQ was developed using diagnostic criteria from the DSM-IV. Scores on the BPQ are highly correlated with the SCID-II screening questionnaire. MacDonald and colleagues (2013) used the Personality Self-Portrait Questionnaire (PSQ) (Oldham & Morris, 1995). PSQ scales correspond to the DSM-IV diagnoses and scores correlate with ratings on the SCID-II and PDQ. McKeown (2014) measured ‘borderline’ traits using the Personal and Relationships Profile (PRP) (Straus, Hamby, Boney-McCoy & Sugarman, 1999). The PRP was originally designed for use in research on intimate partner violence. The borderline personality subscale measures traits present in DSM-IV.
To measure ‘borderline’ traits, the final study (Scott et al., 2009) used items from the IPDE screening questionnaire and the McClean Screening Instrument for BPD (MSI-BPD) (Zanarini et al., 2003). The items were rated on a four-point scale and summed to provide a dimensional score. The MSI-BPD has good psychometric properties.
<table>
<thead>
<tr>
<th>First author</th>
<th>Year</th>
<th>Country</th>
<th>Sample (N)</th>
<th>Percent female</th>
<th>Sample frame</th>
<th>Study design</th>
<th>‘Borderline’ measure</th>
<th>Attachment measure</th>
<th>Key findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartz</td>
<td>2011</td>
<td>USA</td>
<td>14 (clinical)</td>
<td>71% (BPD)</td>
<td>Clinical: diagnosed with BPD. Control: no lifetime axis I or II diagnoses.</td>
<td>Experimental (between groups)</td>
<td>SCID-II</td>
<td>ECR</td>
<td>Diagnosis interacted with oxytocin administration to impact on trust and cooperation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13 (control)</td>
<td>46% (control)</td>
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</tr>
<tr>
<td>Beeney</td>
<td>2015</td>
<td>USA</td>
<td>150</td>
<td>65%</td>
<td>Half recruited from outpatient psychiatric departments, half recruited from non-clinical community population.</td>
<td>Cross-sectional (within group)</td>
<td>SIDP-IV</td>
<td>ECR-R</td>
<td>Social cognition mediated the relationship between ‘attachment anxiety’ and ‘borderline’ traits.</td>
</tr>
<tr>
<td>Boldero</td>
<td>2009</td>
<td>Australia</td>
<td>101 (study 1)</td>
<td>70% (study 1)</td>
<td>Student sample</td>
<td>Cross-sectional (within group)</td>
<td>BPQ</td>
<td>ECR</td>
<td>‘Rejection sensitivity’ and ‘negative self-beliefs’ mediated relationship between attachment dimensions and ‘borderline’ traits.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>131 (study 2)</td>
<td>71% (study 2)</td>
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</tr>
<tr>
<td>Bouchard (a)</td>
<td>2009</td>
<td>Canada</td>
<td>34 (clinical)</td>
<td>100%</td>
<td>Clinical: diagnosed with BPD. Control: non-clinical group matched on educational attainment.*</td>
<td>Cross-sectional (between groups)</td>
<td>SCID-II - French-Quebec version</td>
<td>ECR - French Canadian version</td>
<td>‘Attachment anxiety’ mediated the relationship between sexual attitudes and ‘borderline’ traits.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>34 (control)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Country</td>
<td>Sample Size</td>
<td>Sample Characteristics</td>
<td>Study Design</td>
<td>Assessment Tools</td>
<td>Findings</td>
<td></td>
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<tr>
<td>Bouchard (b)</td>
<td>2009</td>
<td>Canada</td>
<td>35 couples (clinical) 35 couples (control)</td>
<td>Clinical: heterosexual couples where the female partner has a diagnosis of BPD. Control: non-clinical couples matched on age, education and income.*</td>
<td>Cross-sectional (between groups)</td>
<td>SCID-II - French-Quebec version ECR - French Canadian version</td>
<td>Partners of women with BPD diagnosis had higher scores on attachment dimensions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crawford</td>
<td>2009</td>
<td>USA</td>
<td>766</td>
<td>Not stated</td>
<td>Longitudinal</td>
<td>Measure adapted from Personality Diagnostic Questionnaire (PDQ) and items corresponding to DSM-IV criteria.</td>
<td>Impact of childhood abuse on trajectory of 'borderline' traits was partially mediated by attachment dimensions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critchfield</td>
<td>2008</td>
<td>USA</td>
<td>92</td>
<td>92%</td>
<td>Diagnosed with BPD</td>
<td>Cross-sectional (within group)</td>
<td>IPDE ECR</td>
<td>Combination of specific attachment dimensions and 'borderline' traits predicts different forms of aggression.</td>
<td></td>
</tr>
<tr>
<td>Deborde</td>
<td>2012</td>
<td>France, Belgium and Switz.</td>
<td>54 (clinical) 51 (control)</td>
<td>Clinical: adolescents meeting at least 5 of the 9 DSM-IV diagnostic criteria for BPD. Control: school and university students socioeconomically matched.</td>
<td>Cross-sectional (within and between groups)</td>
<td>SIDP-IV RSQ</td>
<td>Relationship between 'attachment anxiety' and 'borderline' traits partially mediated by alexithymia.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Year</td>
<td>Country</td>
<td>Sample Size</td>
<td>Gender</td>
<td>Sample Description</td>
<td>Study Design</td>
<td>Assessment</td>
<td>Findings</td>
<td></td>
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<tr>
<td>Fosatti</td>
<td>2003</td>
<td>Italy</td>
<td>487</td>
<td>62%</td>
<td>Mixed psychiatric sample</td>
<td>Cross-sectional (within group)</td>
<td>SCID-II</td>
<td>‘Attachment anxiety’ related to ‘borderline’ traits, but also related other personality difficulties.</td>
<td></td>
</tr>
<tr>
<td>Hulbert</td>
<td>2011</td>
<td>Australia</td>
<td>30 (BPD) 30 (MDD)</td>
<td>80% (BPD) 73.3% (MDD)</td>
<td>Young adults (15-25), one group with Major Depressive Disorder (MDD) diagnosis and one with BPD diagnosis.</td>
<td>Cross-sectional (between groups)</td>
<td>SCID-II  ECR</td>
<td>Group diagnosed with BPD did not significantly differ from group diagnosed with ‘major depressive disorder’ on attachment dimensions and a number of ‘early maladaptive schemas’</td>
<td></td>
</tr>
<tr>
<td>Lawson</td>
<td>2013</td>
<td>USA</td>
<td>132</td>
<td>0%</td>
<td>Males on probation for Intimate Partner Violence offences.</td>
<td>Cross-sectional (within group)</td>
<td>MCMI-III  AAS</td>
<td>Relationship between attachment dimensions and ‘intimate partner violence’ better mediated by ‘hostile dominant interpersonal problems’ than ‘borderline’ and associated personality difficulties.</td>
<td></td>
</tr>
<tr>
<td>Levy</td>
<td>2005</td>
<td>USA</td>
<td>91</td>
<td>Not stated</td>
<td>Diagnosed with BPD</td>
<td>Cross-sectional (within group)</td>
<td>IPDE RQ, RSQ and ECR</td>
<td>Sample with diagnoses of BPD show similar factor structure on attachment measures to normative samples.</td>
<td></td>
</tr>
<tr>
<td>Last Name</td>
<td>Year</td>
<td>Country</td>
<td>Sample Size</td>
<td>Percentage</td>
<td>Sample Type</td>
<td>Instrument</td>
<td>Attachment Dimension</td>
<td>Trait Related to Attachment Dimensions</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>MacDonald</td>
<td>2013</td>
<td>USA</td>
<td>357</td>
<td>55%</td>
<td>Mixed psychiatric sample</td>
<td>Cross-sectional (within group)</td>
<td>PSQ ECR-R</td>
<td>'Borderline' traits related to attachment dimensions, as are other 'personality disorder' traits.</td>
<td></td>
</tr>
<tr>
<td>Mauricio</td>
<td>2007</td>
<td>USA</td>
<td>192</td>
<td>0%</td>
<td>Court ordered attendees at a 'community batterer intervention programme'</td>
<td>Cross-sectional (within group)</td>
<td>PDQ-R ECR</td>
<td>'Borderline' and 'antisocial' traits mediate relationship between attachment dimensions and 'intimate partner violence'.</td>
<td></td>
</tr>
<tr>
<td>McKeown</td>
<td>2014</td>
<td>UK</td>
<td>92</td>
<td>100%</td>
<td>Female prisoners, 55% charged with violent and 45% with non-violent offences.</td>
<td>Cross-sectional (within group)</td>
<td>PRP ECR-R</td>
<td>'Borderline' and 'antisocial' traits mediated the relationship between attachment dimensions and being a victim of 'intimate partner violence'.</td>
<td></td>
</tr>
<tr>
<td>Meyer</td>
<td>2004</td>
<td>USA</td>
<td>176</td>
<td>84%</td>
<td>Student sample</td>
<td>Cross-sectional (within group)</td>
<td>SCID-II screening ECR questionnaire</td>
<td>The relationship between 'borderline' and 'avoidant traits and neutral face appraisal was mediated by 'attachment anxiety'.</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Year</td>
<td>Country</td>
<td>Sample Size</td>
<td>Clinical</td>
<td>Control</td>
<td>Clinical: Diagnosed with BPD</td>
<td>Control: Non-clinical, matched on age, sex, race, parental education and employment.</td>
<td>Design</td>
<td>Measure</td>
</tr>
<tr>
<td>---------------</td>
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<td>--------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Minzenberg</td>
<td>2006</td>
<td>USA</td>
<td>40 (clinical)</td>
<td>88%</td>
<td>25 (control)</td>
<td>89%</td>
<td>Cross-sectional (within group and between groups)</td>
<td>SCID- II ECR</td>
<td>‘Attachment anxiety’ and ‘attachment avoidance’ mediate the relationship between different forms of child maltreatment and ‘borderline’ traits.</td>
</tr>
<tr>
<td>Minzenberg</td>
<td>2008</td>
<td>USA</td>
<td>43 (clinical)</td>
<td>88%</td>
<td>26 (control)</td>
<td>89%</td>
<td>Cross-sectional (between groups)</td>
<td>SCID II ECR</td>
<td>In a group diagnosed with BPD, ‘attachment anxiety’ was predicted by interaction of childhood abuse and neurocognitive difficulties; ‘attachment avoidance’ was predicted by independent influence of childhood abuse and neurocognitive difficulties.</td>
</tr>
<tr>
<td>Riggs</td>
<td>2007</td>
<td>USA</td>
<td>80</td>
<td>93%</td>
<td></td>
<td>Mixed psychiatric sample</td>
<td>Cross-sectional (within group)</td>
<td>MCMI-III ECR</td>
<td>Attachment dimensions predicted ‘borderline’ traits, where adult social attachment styles and adult representations of childhood attachment did not.</td>
</tr>
</tbody>
</table>
*Both papers conducted different analyses on the same sample. The papers will be treated as one sample for the purpose of the meta-analysis.
1.6.3. Quantitative synthesis

1.6.3.1. ‘Attachment anxiety’

Effect sizes, Fisher’s $r$ ($Z_r$) and Stouffer $Z$ for the 13 studies included in the analysis are presented in Table 4. The analysis gave a mean effect size $r$ of .52 with a corresponding Stouffer $Z$ of 19.13, $p < .001$. However, there was significant heterogeneity of effect sizes: $\chi^2_{(12)} = 191.93$, $p < .001$.

<table>
<thead>
<tr>
<th>Study</th>
<th>$r$</th>
<th>$Z_r$</th>
<th>$Z$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartz</td>
<td>0.78</td>
<td>1.05</td>
<td>4.05</td>
</tr>
<tr>
<td>Beeney</td>
<td>0.47</td>
<td>0.51</td>
<td>5.76</td>
</tr>
<tr>
<td>Boldero (Study 1)</td>
<td>0.56</td>
<td>0.63</td>
<td>5.63</td>
</tr>
<tr>
<td>Boldero (Study 2)</td>
<td>0.57</td>
<td>0.65</td>
<td>6.52</td>
</tr>
<tr>
<td>Bouchard (a)</td>
<td>0.62</td>
<td>0.73</td>
<td>5.19</td>
</tr>
<tr>
<td>Deborde</td>
<td>0.30</td>
<td>0.31</td>
<td>3.07</td>
</tr>
<tr>
<td>Fossati</td>
<td>0.41</td>
<td>0.44</td>
<td>9.05</td>
</tr>
<tr>
<td>Lawson</td>
<td>0.31</td>
<td>0.32</td>
<td>3.56</td>
</tr>
<tr>
<td>MacDonald</td>
<td>0.43</td>
<td>0.46</td>
<td>8.09</td>
</tr>
<tr>
<td>Mauricio</td>
<td>0.57</td>
<td>0.65</td>
<td>7.90</td>
</tr>
<tr>
<td>McKeown</td>
<td>0.65</td>
<td>0.78</td>
<td>6.23</td>
</tr>
<tr>
<td>Meyer</td>
<td>0.45</td>
<td>0.48</td>
<td>3.92</td>
</tr>
<tr>
<td>Scott</td>
<td>0.50</td>
<td>0.54</td>
<td>18.57</td>
</tr>
</tbody>
</table>

1.6.3.2. ‘Attachment avoidance’

Test statistics for ‘attachment avoidance’ are presented in Table 5. Overall, effect size $r$ was .30 with a corresponding Stouffer $Z$ of 12.96, $p < .001$. 
However, a test of heterogeneity revealed that effect sizes across these studies were significantly different: $\chi^2_{(12)} = 58.00, p < .001$.

<table>
<thead>
<tr>
<th>Study</th>
<th>$r$</th>
<th>$Zr$</th>
<th>$Z$</th>
</tr>
</thead>
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<tr>
<td>Bartz</td>
<td>0.65</td>
<td>0.78</td>
<td>3.38</td>
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<td>Beeney</td>
<td>0.33</td>
<td>0.34</td>
<td>4.04</td>
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<td>Boldero (Study 1)</td>
<td>0.18</td>
<td>0.18</td>
<td>1.81</td>
</tr>
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<td>Boldero (Study 2)</td>
<td>0.17</td>
<td>0.17</td>
<td>1.95</td>
</tr>
<tr>
<td>Bouchard (a)</td>
<td>0.52</td>
<td>0.58</td>
<td>4.36</td>
</tr>
<tr>
<td>Deborde</td>
<td>0.12</td>
<td>0.12</td>
<td>0.21</td>
</tr>
<tr>
<td>Fossati</td>
<td>0.32</td>
<td>0.33</td>
<td>7.06</td>
</tr>
<tr>
<td>Lawson</td>
<td>0.41</td>
<td>0.44</td>
<td>4.71</td>
</tr>
<tr>
<td>MacDonald</td>
<td>0.20</td>
<td>0.20</td>
<td>3.74</td>
</tr>
<tr>
<td>Mauricio</td>
<td>0.28</td>
<td>0.29</td>
<td>3.88</td>
</tr>
<tr>
<td>McKeown</td>
<td>0.26</td>
<td>0.27</td>
<td>2.49</td>
</tr>
<tr>
<td>Meyer</td>
<td>0.13</td>
<td>0.13</td>
<td>1.13</td>
</tr>
<tr>
<td>Scott</td>
<td>0.21</td>
<td>0.22</td>
<td>7.97</td>
</tr>
</tbody>
</table>

With no clear theoretical grounds for removal of studies from these analyses to resolve heterogeneity issues, it would appear that the differing effect sizes across these studies are due to differences in sampling. Inspection of homogeneity statistics indicated that the large sample used in Scott and colleagues (2009) influenced overall homogeneity. Therefore, the results of these research syntheses should be interpreted cautiously.
1.6.4. Narrative synthesis

1.6.4.1. Psychological mediators

The studies proposed a number of other psychological constructs as potential mediators between attachment dimensions and ‘borderline’ traits. Beeney and colleagues (2015) used confirmatory factor analysis to establish latent social cognitive factors. Their analysis of wide ranging questionnaires produced three latent factors: ‘identity diffusion’, ‘self-other boundaries’, and ‘mentalization’\(^1\). Structural equation modelling identified that ‘self-other boundaries’ and ‘mentalization’ mediated the relationship between ‘attachment anxiety’ and ‘borderline’ traits. The weaker relationship between ‘attachment avoidance’ and ‘borderline’ traits was not mediated by social cognition.

In addition to social cognition, personality dimensions were also implicated in the mediation of attachment dimensions and ‘borderline’ traits. Deborde and colleagues (2012) showed ‘alexithymia’ (cognitive and affective deficits in emotion processing) to mediate the relationship between ‘attachment anxiety’ and ‘borderline’ traits. Scott and colleagues (2009) found that the more established personality dimensions, ‘trait negative affect’ and ‘impulsivity’ also mediated the relationship between ‘attachment anxiety’ and ‘borderline’ traits. Boldero and colleagues (2009) identified the role of ‘rejection sensitivity’ and ‘negative self-beliefs’ in fully mediating the

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\(^1\) “Mentalizing is the process by which we make sense of each other and ourselves, implicitly and explicitly, in terms of subjective states and mental processes.” (Bateman & Fonagy, 2010).
‘borderline’-‘attachment anxiety’ relationship, and partially mediating the relationship with ‘attachment avoidance’.

The research suggests that the influence of ‘attachment anxiety’ on ‘borderline’ traits may occur through social cognition, emotion processing and personality characteristics. It is likely that early experiences leading to the development of ‘attachment anxiety’, e.g. inconsistency and rejection, may also contribute to personality characteristics such as ‘rejection sensitivity’. However, it is possible the relationship is non-recursive and a complex mix of direct experiences and those evoked due to attachment behaviours may contribute to the personality development. Indeed, Beeney and colleagues (2015) suggest the hyper-dependency on others, observed in high ‘attachment anxiety’, is likely to lead to a lack of experiences of seeing the other as separate to the self. These associated difficulties (e.g. ‘rejection sensitivity’ or problems with social cognition) were then observed in groups with greater ‘borderline’ traits.

The reviewed research failed to provide clear psychological mediators for any possible ‘attachment avoidance’-‘borderline’ relationship. Studies tended to show ‘attachment avoidance’ to have a less significant relationship than ‘attachment anxiety’.
1.6.4.2. Environmental mediators

Two studies considered the impact of early trauma. Crawford and colleagues (2009) showed the relationship between childhood abuse and ongoing ‘borderline’ traits in adulthood was mediated by ‘attachment anxiety’ measured in late adolescence. They suggest that their data showed ‘attachment anxiety’ maintained ‘borderline’ traits in those who had experienced childhood abuse, where otherwise it may have dissipated.

Additionally, Minzenberg and colleagues (2006) found attachment dimensions in a sample with BPD diagnoses were related to childhood trauma. Minzenberg and colleagues identified separate pathways for the two dimensions. ‘Attachment avoidance’ was predicted by childhood abuse and neglect generally. Higher levels were associated with greater distancing in interpersonal relationships. In contrast to this, ‘attachment anxiety’ was predicted by only childhood abuse, and most significantly by childhood sexual abuse. Higher levels were associated with more ‘clinging’ in relationships.

In summary, the relationship between childhood trauma and ‘borderline’ traits is mediated by attachment dimensions. More specifically, childhood maltreatment in general is related to a mistrust of others and denial of dependence, leading to distancing in relationships. Child sexual abuse is associated with a negative model of self and a need for support from others,
leading to a ‘clinging’ interpersonal style, often identified in people with
‘borderline’ traits.

1.6.4.3. Neurochemical and neurocognitive factors

Two studies (Bartz et al. 2011; Minzenberg et al., 2008) provided evidence of
a neurochemical/neurocognitive effect. Bartz and colleagues showed that
oxytocin (often seen as an affiliative neurochemical) increased cooperation
and trust in a non-clinical sample, but decreased it in a sample with BPD
diagnoses (although this was non-significant). However, their study identified
heterogeneity in ‘attachment avoidance’ among the clinical sample. Findings
showed that when both dimensions were high, trust and cooperation was
impeded, but when only ‘attachment anxiety’ was high trust and cooperation
were not impeded. These findings suggest that attachment dimensions vary
across those with high levels of ‘borderline’ traits and that variance in how
avoidant individuals are of intimacy relates to differential effects of oxytocin
on pro-social behaviour.

Minzenberg and colleagues (2008) found evidence of neurocognitive
differences between those diagnosed with BPD and a non-clinical sample:
significantly weaker short-term recall and executive functioning performance.
Within the BPD sample, ‘attachment anxiety’ was predicted by an interaction
of short-term recall and childhood abuse, while ‘attachment avoidance’ was
predicted independently by childhood abuse and executive functioning. This
indicates that among people with ‘borderline’ traits, high ‘attachment
avoidance’ is related to cortical pathology (the seat of executive functioning), while high ‘attachment anxiety’ is associated with subcortical pathology (the seat of memory). This suggests that variation in ‘attachment avoidance’ in the sample is related to differences in abuse severity and cognitive control.

These studies indicate that attachment dimension scores in those with high levels of ‘borderline’ traits are associated with neurochemical and neurocognitive differences. In addition, variation in ‘attachment avoidance’ in the sample is likely to be related to differences in oxytocin effect and neurocognitive abilities. It is possible these differences contribute to heterogeneity of presentation among those with high levels of ‘borderline’ traits.

1.6.4.4. Interpersonal relationships

A number of studies investigated the impact of attachment dimensions and ‘borderline’ traits on interpersonal and relational factors. In a student sample, Meyer and colleagues (2004) found greater ‘borderline’ and ‘avoidant’ personality traits were associated with more negative attraction appraisals of faces. This effect was fully mediated by ‘attachment anxiety’. An interaction between higher levels of ‘borderline’ and ‘avoidant’ personality traits and ‘attachment anxiety’ related to higher levels of disliking neutral faces.

Two studies (Bouchard et al., 2009a; Bouchard et al., 2009b) investigated the impact of attachment dimensions on romantic relationships. In a sample
of women in heterosexual relationships, Bouchard and colleagues (2009a) found that women with a BPD diagnosis reported higher levels of feeling ‘pressure to engage in sex’. This relationship remained when having been a victim of childhood sexual abuse was controlled for. The relationship between BPD diagnosis and ‘pressure to engage in sex’ was mediated by ‘attachment anxiety’. Bouchard and colleagues suggested that fear of abandonment in this group may contribute to the sense of pressure. However, it could also, and should also, be understood that women with these difficulties may be more vulnerable to forming couple relationships where this a material, real-life pressure (as opposed to a ‘cognitive distortion’). A second study (Bouchard et al., 2009b) using the same sample, found partners of women with a BPD diagnosis had higher scores on both attachment dimensions, than partners of matched control women. This lends support to the assertion that women with a BPD diagnosis are more likely to find themselves in more difficult romantic relationships (as opposed to them making misattributions).

The concept of aggression was investigated by Critchfield and colleagues (2008). In a sample of participants with a BPD diagnosis they found that attachment dimensions were related to aggressive constructs. Higher scores on both dimensions related to higher expectation of aggression from others. ‘Attachment avoidance’ specifically related to higher levels of self-harm. The authors suggested that a lack of reliance on others may contribute to self-attacking to cope with difficulties. ‘Attachment anxiety’ was specifically related to experiences of irritability and anger. It was proposed that higher
levels of anxiety about the other’s availability may cause subjective experiences of irritability.

Focusing on more extreme manifestations of relational aggression, three studies (Lawson and Brossart, 2013; Mauricio et al., 2007; McKeown, 2014) investigated the relationship between ‘borderline’ traits, attachment dimensions and ‘intimate partner violence’ (IPV). In a forensic sample, Mauricio and colleagues showed that attachment dimensions predicted perpetration of physical and psychological violence. However, ‘borderline’ and ‘antisocial’ personality traits mediated these relationships; the impact of attachment dimensions occurred through personality traits. Yet, a later study (Lawson and Brossart, 2013) repeated the methodology, but also included an additional mediator: ‘Hostile Dominant Interpersonal Problems’ (vindictive, domineering and intrusive traits). When entered into the model, neither ‘borderline’ nor ‘antisocial’ traits were significant mediators. This suggests that traditional personality disorder traits are not the most useful way of characterising the constructs through which attachment dimensions impact on IPV.

McKeown (2014) found that attachment dimensions and ‘borderline’ traits also contributed to IPV victimisation. In their female forensic sample, they found that ‘borderline’ traits can be a partial mechanism through which attachment dimensions lead to IPV victimisation. However, it did not fully
mediate the relationships and ‘attachment avoidance’, in particular, still had a direct effect in the model.

1.6.4.5. Validity of attachment dimensions

Riggs and colleagues (2007) investigated the relationship between adult attachment and personality and dissociative difficulties in a group of trauma survivors. They compared adult social attachment, as measured by the ECR (a more attitudinal measure), and adult representations of parent-child attachment, as measured by the Adult Attachment Interview (AAI) (George, Kaplan & Main, 1985). They found constructs arising from the ECR, including attachment dimensions, provided more significant relationships with personality traits, including ‘borderline’. However, it is possible this difference resulted from a lack of power; there were small cell sizes in AAI classifications. Riggs and colleagues also compared the utility of categorical attachment styles (secure, preoccupied, dismissive and fearful) with attachment dimensions. Styles provided no significant relationship with ‘borderline’ traits, but the dimensional ‘attachment anxiety’ did. While the study has some methodological limitations (e.g. cell size), and the superiority of attachment dimensions cannot be assumed, Riggs and colleagues found there was a clear role for attachment dimensions (particularly over and above adult social attachment styles).

The structure of the factors measured by the ECR was examined in a sample of individuals diagnosed with BPD (Levy et al., 2008). The structure was
broadly consistent with Bartholomew’s (1990) conceptualisation of a two dimensional space on which four categories were mapped. Levy and colleagues did suggest there may be subtly different factor loadings within this subgroup. However, the reliability of this finding was challenged by Critchfield and colleagues (2008), (a paper in which Levy was also an author) due to the small sample size in the Levy and colleagues paper. Overall, Levy and colleagues did conclude that a two dimensional conceptualisation of attachment was valid for their sample of participants who had received a BPD diagnosis.

1.6.4.6. Utility of attachment dimensions to differentiate diagnoses

A number of studies investigated the potential for attachment dimensions to differentiate between BPD and other diagnoses. Two studies identified the ability of attachment dimensions to differentiate between a small number of ‘personality disorder’ diagnoses. Meyer and colleagues (2004) showed that ‘borderline’ traits were characterised by ‘attachment anxiety’. This contrasted to their findings that ‘avoidant’ traits were associated with both dimensions, and ‘schizoid’ traits had only a weak correlation with ‘attachment avoidance’.

Beeney and colleagues (2015) also found, along with social cognition, attachment dimensions could differentiate between ‘borderline’, ‘avoidant’ and ‘antisocial’ traits. However, they struggled to differentiate between traits presenting at a subclinical level. Indeed, a number of other studies have found limited ability for attachment dimensions to adequately differentiate
between current diagnostically identified categories. Fossati and colleagues (2003) found effect sizes of attachment dimensions on personality traits were only small to medium. They found that dimensions loaded onto clusters of traits (e.g. ‘attachment anxiety’ being related to ‘borderline’ and ‘dependent’ traits), and therefore could not fully differentiate between individual categories. Similarly, Riggs and colleagues (2007) found ‘attachment anxiety’ failed to differentiate between ‘borderline’, ‘dependent’, ‘compulsive’, ‘schizotypal’ and ‘paranoid’ traits.

While MacDonald and colleagues (2013) showed that dimensions did not adequately differentiate between diagnoses, they did suggest attachment dimensions may be used as a screening tool for ‘personality disorder’ more generally. However, findings from Hulbert and colleagues (2011) suggest that MacDonald’s proposal may not be sufficient. In a group of adolescents diagnosed with BPD or ‘major depressive disorder’ they found no significant differences in attachment dimensions. This research indicates attachment dimensions alone fail to differentiate not only between different ‘personality disorder’ diagnoses, but also between personality and ‘mood disorder’ diagnoses.

1.7. Discussion

1.7.1. Significance of main findings

In addition to attachment dimensions, evidence from the studies reviewed also points to a number of inter-related constructs which appear to have
relevance to ‘borderline’ traits. The potential relationships, which has arisen from the reviewed research findings, between attachment dimensions and these other constructs is presented in *Figure 1*.

The literature indicated that early trauma can impact on ‘borderline’ traits through attachment dimensions. In turn, childhood trauma can also be related to other psychological factors, e.g. neurocognitive difficulties (Minzenberg et al., 2008). The impact of attachment dimensions on ‘borderline traits’ has been shown to be both direct and also occur through the mediation of other psychological factors (e.g. personality traits, social cognition, neurocognition, alexithymia, beliefs and schemas). Among people with high levels of ‘borderline’ traits, attachment dimensions have been shown to affect interpersonal relationships (both directly, and through other psychological mediators, e.g. ‘hostile dominant interpersonal styles’). Research has also shown that people high in ‘borderline’ traits may have relationships which put them at more risk of future interpersonal trauma (e.g. through partnering with others high in attachment difficulties, or in terms of the impact of attachment dimensions on the likelihood of being a victim of IPV).
Higher levels of difficulty in all these identified areas are related to higher levels of ‘borderline’ traits. This indicates the relationship between ‘borderline’ traits and attachment dimensions is multifaceted and involves other psychological and environmental factors.

1.7.2. Clinical utility/practice implications

The identified relationships, regarding attachment dimensions and ‘borderline’ traits could be used to guide intervention. The model (Figure 1) suggests a number of targets for which there is evidence that psychological therapies can influence change. Interventions can specifically target attachment and attachment trauma through the therapeutic relationship (e.g. Transference Focused Psychotherapy; Levy et al., 2006). Given the mediating role for social cognition between attachment dimensions and ‘borderline’ traits therapies targeting ‘mentalization’ or reflective functioning
(e.g. Mentalization Based Treatment; Bateman & Fonagy, 2010) may be useful. Cognitive Analytic Therapy may benefit those wishing to consider the current interpersonal difficulties stemming from the attachment difficulties (Clarke, Thomas & James, 2013). Dialectical Behaviour Therapy could support the associated skills deficits (Neacsiu, Rizvi & Linehan, 2010) while other psychological therapies could also target unhelpful beliefs about the self and other (e.g. Cognitive Therapy; Wenzel, Chapman, Newman, Beck & Brown, 2006). The implications and utility of attachment dimensions and associated constructs in understanding ‘borderline’ traits lies partly in the provision of a model with numerous targets for intervention.

The attachment dimension-‘borderline’ relationship is characterised by complexity. To make full use of the findings discussed in the present review, they would need to be shared more fully with those involved in supporting people with significant ‘borderline’ traits. There is some emerging evidence indicating the benefit of psychological consultation (Christofides, Johnstone & Musa, 2012; Kennedy, Smalley & Harris, 2003). In line with this, in the UK guidance stipulates a core competency of practitioner psychologists should be in providing consultation to colleagues (Division of Clinical Psychology, 2011; Onyett, 2007). Given the complexity of the model, one way in which it could be utilised is through psychological consultation to provide better multi-disciplinary services, as seen in other settings (Kennedy et al., 2003).
Finally, the clinical utility of the findings for diagnosis should also be considered. DSM5 states that BPD is characterised by interpersonal difficulties, including fear of abandonment. This characteristic is synonymous with high levels of ‘attachment anxiety’. However, studies in the present review show this feature is not unique to ‘borderline’ traits but also occurs across a number of other personality traits. In turn, current diagnostic manuals, ICD-10 and DSM5, propose a categorical definition, where personality is either ‘disordered’ or not. With reference to homogeneity inspection in the meta-analysis, among clinical and non-clinical levels of ‘borderline’ traits, it was clear that many studies had homogeneity of effect size. This suggests the difficulties associated with ‘borderline’ traits, as well as the traits themselves, are better characterised by dimensional models (i.e. both dimensions of different personality traits and dimensions of the level of difficulty). This finding is consistent with the model set out in the appendices of DSM5 and the proposed model for ICD-11 (Tyrer et al., 2015).

1.7.3. Policy implications

The present review provides clear targets for intrapersonal change in attachment dimensions and associated psychological factors associated with ‘borderline’ traits. However, studies also suggest that, aetiologically, a significant proportion of the variance in these intrapersonal constructs results from interpersonal trauma (Crawford et al., 2009; Minzenberg et al., 2006). Clinical services do have a role in providing support for people who have suffered abuse and are suffering with associated psychological consequences. However, findings from the present review indicate that, in
order to more comprehensively address the suffering associated with 'borderline' traits, resources should be targeted at the aetiology.

Increasingly, funds in the UK are being directed into 'late' intervention services (e.g. adult mental health), through the protection of NHS funding (HM Treasury, 2015) and parity of esteem funding for mental health services (Health and Social Care Act 2012). Alongside this, Local Authority spending is being cut (HM Treasury, 2015). Consequently, funding for bodies providing vital social care and early intervention services to protect children from early trauma and the ensuing difficulties (including attachment problems, associated psychological difficulties and even 'borderline' traits) is being cut (National Children’s Bureau & The Children’s Society, 2015). The findings of the present review indicate both a need for increased therapy provision and a need for more early intervention.

1.7.4. Research limitations

There are a number of limitations that are common within the research reviewed herein. Particularly, there is significant diversity in the operationalisation of 'borderline' traits across the studies. Among the 20 studies reported in this review, there were 10 unique methods for measuring 'borderline' traits. While measures presented clear reliability and validity, it is still possible that there were differences in the operationalisation of the construct. It is unlikely this limitation in the research literature will be overcome until there is more clarity on the dimensional vs. categorical
models of ‘borderline’ traits and greater consensus around operational definitions.

A number of the studies reviewed here included adolescents in their sample. Personality structure may be different in adolescence and this could influence findings in those studies. However, proposals for the ICD-11 do include the possibility of providing personality diagnoses before the age of 18 (Tyrer et al., 2015). Indeed, it would be naïve to assume that the issue of personality development could be overcome by only including adult samples. Neuroscientists now believe aspects of brain development are still not complete during adolescence. In particular, parts of the prefrontal cortex associated with factors such as ‘impulsivity’ do not finish developing until the early twenties (Giedd, 2004).

Some of the studies included in the present review did not provide overall models to explain the interaction of the different variables. For example, MacDonald and colleagues (2013) reported individual correlations between three constructs: attachment dimensions, personality traits and affective temperament. The authors did not provide any overall statistical model to show how the three constructs were inter-related. Such analysis may have allowed for an understanding of how more biological (affective temperament) and more environmental (attachment) constructs might interact to influence ‘borderline’ traits. In this sense, the data has not been fully utilised.
A final limitation of the studies reviewed was the preponderance of the cross-sectional research designs. All of the studies included in the present review measured attachment dimensions at one time point only. While attachment is often seen as a more static construct, some authors have suggested that ‘attachment avoidance’ could fluctuate in people with high levels of ‘borderline’ traits. Beeney and colleagues (2015) noted individuals who acquire a BPD diagnosis oscillate between high and low levels of self-sufficiency. The current available research, with its single time point measures, is insufficient to detect any dynamic aspect to attachment ‘avoidance’ in a high ‘borderline’ trait group.

1.7.5. Review limitations
The present review search did not extend to identifying ‘grey literature’. This decision was taken to protect the quality of the studies included in the review. Grey literature would not have been subject to the same peer-review process as included studies. While Masters level dissertation and Doctoral level theses are assessed by academics, there is no clear process for evaluating the rigour of this process across courses and universities. In contrast, peer-review journals provide clear details on their review processes. While this decision was taken to strengthen quality of the present literature review, it is also a limitation. There remains a possibility that the present review may suffer from publication bias. Other, unpublished research, which does not identify the same significant relationships could have existed and been omitted.
A second limitation concerns the diversity of the literature. Across the studies reviewed here, a number of different variables were studied. Due to this, conclusions made regarding relationships often relied on only a small number of studies. This introduces a risk that type I or type II errors may have occurred.

In addition, despite the diversity within the literature, the model developed here fails to adequately account for the relationship between the different factors. The model presented (Figure 1), is a model of the current research, rather than a comprehensive model of ‘borderline’ traits. Other research and theories can be drawn upon to inform future research aiming to test and further develop the model. As an example, Crawford and colleagues (2009) found that attachment mediated the relationship between childhood abuse (trauma) and ‘borderline’ traits but the scope of their study did not extend to explaining what led to some children developing more problematic ‘attachment anxiety’ and ‘attachment avoidance’. However, longitudinal research by Werner and Smith (1992) indicates that having a protective early relationship may protect against later attachment insecurity. Drawing upon this work, similar longitudinal studies in relation to personality traits would serve to further develop the model presented here.

Ultimately, the model fails to account for all the variance in relational difficulties. This may be due to a lack of research on other pertinent factors.
However, it may also be accounted for by the dearth of research investigating the material world circumstances of people with high levels of ‘borderline’ traits. Smail (2005) suggested that psychological theory often misses the social and material contexts of individual distress and difficulty. This is one way in which the model produced by the reviewed papers may fail to fully explain the relationship between attachment dimensions and ‘borderline’ traits in that it does not fully account for the real-life circumstances of people who may be really struggling with material adversity. The present review is limited by the internal psychological focus of the available literature.

1.7.6. Future directions
While there is evidence supporting the validity of attachment dimensions when considering ‘borderline’ traits (Levy et al. 2008; Riggs et al. 2007), future research should also consider the reliability of single time-point measures. If ‘attachment avoidance’ does fluctuate in those who score high on ‘borderline’ traits researchers will have to be creative in how they attempt to capture this. It would be unethical to artificially measure changes under different conditions, however it is possible that this data could be collected as part of normal clinical practice.

Furthermore, research should also more adequately measure the realities of people’s lives, rather than simply focussing on internal correlates. Attachment Theory proposes that internal representations develop as a
result of environmental experiences. While the current literature does address this to some extent, environmental experiences do not end at early childhood trauma. Future research could investigate the impact of a wider range of early and later experiences on the attachment-‘borderline’ relationship.

However, the scale of the challenge for future research may be far greater. If proposed diagnostic changes take place (a move towards dimensional models within the DSM and ICD projects), the vulnerable group currently conceptualised by high ‘borderline’ traits will be conceptualised using alternate constructs. In this instance research may have to refocus how it captures the experiences of those currently provided with a diagnosis of BPD.

1.8. Conclusion
The present review aimed to consider the relationship between attachment dimensions and ‘borderline’ traits. While the results of the meta-analysis should be interpreted cautiously, there is convergent evidence from across a number of the studies reviewed to tentatively suggest that ‘borderline’ traits are associated with higher levels of both attachment dimensions. Across studies, a stronger effect for ‘attachment anxiety’ was observed. The present review also identified a number of other factors involved in the relationship. This included a predisposing effect of childhood trauma, a mediating effect of
other psychological correlates and an effect of attachment dimensions and ‘borderline’ traits on interpersonal problems.

The empirical literature would benefit from large-scale studies of the role of environmental factors. With regard to the utility of early intervention, it would be particularly pertinent to investigate not only the impact of childhood trauma on attachment and ‘borderline’ traits, but also any potential protective factors. With the right support at the level of national policy, these factors could then be harnessed to protect vulnerable children.
1.9. Reference list


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Chapter Two

The impact of attachment and burnout on mental health professionals’ response urgency: a vignette-based study

Word count (excluding titles, tables, references and footnotes): 5850

Paper prepared for submission to Clinical Psychology and Psychotherapy (see Appendix E for notes to contributors)
2.1. Abstract

Objective: The present study aimed to investigate whether there was an interactional relationship between mental health professionals’ adult social attachment dimensions and ‘burnout’ processes on their ‘response urgency’ to somebody meeting the diagnostic criteria for ‘Borderline Personality Disorder’.

Method: Secondary care mental health professionals were administered attachment dimension (Psychosis Attachment Measure) and ‘burnout’ questionnaires (abbreviated Maslach Burnout Inventory). Scores were interpreted alongside their endorsed response to a vignette task depicting a client in crisis.

Results: ‘Burnout’ phases were differentially correlated with attachment dimensions. The ‘depersonalisation’ phase of ‘burnout’ directly predicted ‘response urgency’. It also acted to suppress the effect of ‘attachment anxiety’ on ‘response urgency’. Findings from the present study are considered in the context of findings from previous research into ‘burnout’ and attachment.

Discussion: ‘Depersonalisation’ may act as a coping strategy for managing ‘attachment anxiety’, but also serves to suppress the effect of attachment on professional endorsed responses. Clinical, organisational and policy
implications were considered alongside the need for the use of creative research methodologies, such as mixed-method designs, to explore the area.

2.2. Key practitioner message

- Mental health professional attachment and levels of ‘burnout’ are related.

- Professionals’ ‘attachment anxiety’ and ‘burnout’ ‘depersonalisation’ affected their endorsed response to a client in crisis.

- Clinical Psychologists are well placed, given their expert knowledge of intrapersonal constructs, to advocate for more supportive environments and practices (for professionals and clients) at a clinical, organisational and policy level.

2.3. Keywords

Attachment; Burnout; Mental Health Professional; Crisis; Borderline; Vignette
2.4. Introduction

The National Collaborating Centre for Mental Health (NCCMH, 2009) reported that ‘Borderline Personality Disorder’\textsuperscript{23} (BPD) is characterised by an “instability in emotions, self-image and relationships” (p.17). The NCCMH reported that, for these clients, distress can often reach unmanageable levels, termed a ‘crisis’. Some examples of what constitutes a ‘crisis’ include: “self-harm, impulsive aggression, and short lived psychotic symptoms… intense anxiety, depression and anger” (NCCMH, 2009, p.298). Reported statistics suggest that between 5.3% and 11% of people accessing Community Mental Health Teams receive a BPD diagnosis (Newton-Howes et al., 2010; Keown, Holloway & Kuipers, 2002). Despite the relatively low incidence, evidence suggests that clients with these difficulties can be particularly prominent in the thoughts of mental health professionals. Markham (2005) found that professionals were less optimistic and held more negative views about working with clients with a diagnosis of BPD, compared to those with ‘schizophrenia’ or ‘depression’ diagnoses. Moreover, Woollaston and Hixenbaugh (2008) identified a ‘Dangerous Whirlwind’ to be the core theme arising from nurse’s perceptions of these clients, with study participants expressing the view that these clients had control over their behaviour (including those during crises) and were ‘manipulative’.

\textsuperscript{2}‘Borderline Personality Disorder’ is thought to be largely synonymous with ‘Emotionally Unstable Personality Disorder-Borderline Type’. Except where specifically referring to diagnostic criteria for one term, the label BPD is applied in the present study to represent both of these diagnostic labels.

\textsuperscript{3}Use of this term does not imply the author’s agreement with the category’s validity or utility. Instead, every effort has been made to describe individuals as having ‘received’ this diagnosis (as opposed to it being something which is intrinsically true about their personhood).
The concept of ‘manipulation’ appears throughout literature relating to BPD. As recently as 2000, the American Psychiatric Association stated that a characteristic of those meeting diagnostic criteria was manipulation of relationships in order to obtain nurturance. However, some have argued that this notion of manipulation is pejorative and inaccurate. For example, Linehan (1993) stated that nurturance is a basic human need which is not being fulfilled in people with BPD. In situations where others may feel nurtured, people with these difficulties can instead feel emotional pain. She noted that what is perceived as manipulation is instead an attempt to have one’s emotional needs met.

When trying to understand the difficulties that mental health care providers can face in trying to meet their clients’ emotional needs, Attachment Theory (Bowlby, 1969) may be of utility. This is perhaps the most well researched theory of human care giving and receiving. The central tenet is that relationships developed in infancy (with the primary caregiver) serve an evolutionary need to survive. They allow infants to have their basic needs met, including nurturance. The theory postulates that the way in which we relate to our attachment figures is carried forward as a relationship template into adulthood. Indeed, there is a significant body of research showing the effect of early attachment on later difficulties with care and nurturance in individuals who receive a BPD diagnosis (e.g. Agrawal, Gunderson, Holmes, & Lyons-Ruth, 2004; Fonagy, Target, Gergely, Allen, & Bateman, 2003; Minzenberg, Poole & Vinogradov, 2008).
Attachment is not simply a theory of care reception, but also of care provision. Although now somewhat dated, van IJzendoorn's (1995) meta-analytic review provided a decisive insight into the relationship of attachment and care provision. Investigating parent-child dyads, he found that adult attachment was related to both parental responsiveness and children’s attachment styles. That is, attachment representations in adulthood affect care provision.

Adult social attachment can be conceptualised along two dimensions: ‘attachment anxiety’ and ‘attachment avoidance’ (Brennan, Clark & Shaver, 1998). ‘Attachment anxiety’ refers to anxiety about attachment relationships and the availability of the other, while ‘attachment avoidance’ represents the comfort with which people are able to be intimate and seek help and closeness from others (Fraley, Heffernan, Vicary & Brumbaugh, 2011). Parent-infant research has investigated the specific effect of each dimension on parenting behaviour. ‘Attachment avoidance’ has had the clearest relationship with responsiveness; as avoidance increases, responsiveness decreases. ‘Attachment anxiety’ has had less of an impact on responsiveness, but higher levels have been found to co-occur alongside interference with the child’s exploration, e.g. over-involvement/protection (Jones, Cassidy & Shaver, 2015).
Similarly, a developing body of literature has sought to explore the impact of mental health professionals’ adult social attachment representations on the care they provide. There has been particular interest in the psychotherapeutic relationship. Findings suggest that therapist attachment security is related to a better working alliance, particularly in clients with more symptomatic complexity (Bucci, Seymour-Hyde, Harris & Berry, 2016; Schauenburg et al., 2010). However, many clients in secondary care mental health settings rarely see a psychologist or psychotherapist, more often receiving support from other healthcare professionals (Department of Health, 2011). Beyond psychology and psychotherapy there is a paucity of research investigating the impact of adult attachment on mental healthcare professionals. However, one study (Berry et al., 2008) has investigated the effect of mental health keyworking professional attachment representations when working with people who have experienced psychosis. Berry and colleagues found that higher levels of ‘attachment avoidance’ was related to poorer professional psychological mindedness and lower levels of ‘attachment anxiety’ correlated with more positive client-rated therapeutic relationship.

While there is some promising early evidence to suggest a relationship between mental health professional attachment and the relationships they form with clients, more research is needed. Firstly, no research specifically focusing on professionals working with individuals who receive a BPD diagnosis was found in the literature search. This is a group with evidenced attachment needs (Agrawal et al., 2004; Fonagy et al., 2003; Minzenberg et
al., 2008). As such, it would be helpful to better understand any impact of professionals’ attachment on these relationships. Secondly, the existing literature is not fully consistent in its findings. For example, while the studies reported did show a relationship, other research has indicated that it may not be a simple direct effect. Petrwalowski, Nowacki, Pokorny and Buccheim (2011) showed that the issue was more complex than simply professionals’ attachment. The effect on relationship was an interaction between client and clinician attachment.

In their review of parent-child relationships Jones and colleagues (2015) found a particular role for parental stress. They reported that parental stress was significantly related to both attachment dimensions. One study, Mills-Koonce et al. (2011), found that adult attachment only affected care provision when parental stress was present. Psychological stress mediated the relationship between parental attachment and response sensitivity.

In the Occupational Psychology literature stress is often considered alongside ‘burnout’. A widely used definition of ‘burnout’ (Leiter & Maslach, 1988) proposes a three phase model. Leiter and Maslach argue that workplace stress can lead to ‘emotional exhaustion’. Emotionally exhausted professionals can be prone to ‘depersonalisation’ of the individuals they are working with. This ultimately leads to lower levels of ‘personal accomplishment’. Similar to the attachment literature findings that attachment dimensions are related to parental stress, Leiter, Day and Price (2015)
showed that healthcare workers’ attachment dimensions were related to their levels of ‘burnout’. They found that ‘attachment avoidance’ was correlated with an efficacy dimension (similar to ‘personal accomplishment’), while ‘attachment anxiety’ was related to all three ‘burnout’ phases: efficacy, exhaustion and cynicism (similar to ‘depersonalisation’).

In a review of ‘burnout’ in mental health professionals (Morse, Salyers, Rollins, Monroe-DeVita & Pfahler, 2012), it was reported that 21-67% of mental health professionals could be suffering from high levels of ‘burnout’ (p.342). Similar to the infant research showing the effect of stress on care provision (Jones et al., 2015), the literature has also indicated a role for ‘burnout’ in mental health professionals’ care provision. Garman, Corrigan and Morris (2002) showed that teams who were more emotionally exhausted had less satisfied clients. In addition, Holmqvist and Jeanneau (2006) found that higher levels of ‘emotional exhaustion’ and ‘depersonalisation’ were associated with more distancing and rejecting attitudes towards clients. In contrast, Morse and colleagues’ review failed to identify any clear directional influence of differential levels of ‘personal accomplishment’ on mental health professionals’ care provision.

There is emerging evidence for the role of clinician attachment and ‘burnout’ on care provision. One group which mental health professionals report as difficult to provide care for are those clients who receive a diagnosis of BPD (Markham, 2005; Woollasron & Hixenbaugh, 2008). Individuals with these
types of difficulties often find themselves in ‘crisis’, experiencing high levels of emotional distress. One way of conceptualising these crises is as a result of/or as an attempt to have one’s emotional needs met (Linehan, 1993). Parent-infant literature has shown that both parental attachment and stress can impact on the responsiveness of the caregiver to meet the child’s emotional needs (Jones et al., 2015). Similarly, there is emerging evidence that both professionals’ attachment dimensions and ‘burnout’ are related to mental health professionals’ responsiveness and therapeutic relationships (Berry et al., 2008; Bucci et al., 2016; Morse et al., 2012). However, there has been no research to investigate the specific relationships for professionals when working with people who have difficulties which can result in them receiving a BPD diagnosis.

2.4.1. Aims and hypotheses
The present study aims to consider the utility of attachment theory and ‘burnout’ for understanding differences among professionals in their responsiveness to clients in crisis. Responsiveness in the present study is operationalised as ‘urgency of response’. Due to practical and ethical reasons a single vignette was used to assess professionals’ responses to BPD patients in crisis as opposed to a more naturalistic observation method.

Previous research has indicated clear directional relationships for ‘burnout’ and attachment dimensions on ‘response urgency’ (Holmqvist & Jeanneau, 2006; Jones et al., 2015). As such, it was hypothesised that higher scores on
‘attachment avoidance’, ‘emotional exhaustion’ and ‘depersonalisation’ would be negatively correlated with endorsed ‘response urgency’ (where higher scores on ‘response urgency’ indicated higher urgency). Given findings suggesting the role for caregiver ‘attachment anxiety’ in inhibiting exploration, it was hypothesised that higher scores on ‘attachment anxiety’ would be associated with endorsing a more urgent response to the vignette. In other words, regarding ‘personal accomplishment’ the hypothesis was that there would be no significant relationship with ‘response urgency’.

In line with previous research (Mills-Koonce et al., 2011), the present study considered the interactional effect of attachment and ‘burnout’. Mediation hypotheses were based on the direct effect hypotheses. It was hypothesised that the relationship between ‘attachment avoidance’ and ‘response urgency’ would be mediated by ‘emotional exhaustion’ and ‘depersonalisation’. In addition, it was hypothesised that the effect of ‘attachment anxiety’ on ‘response urgency’ (predicted to be positively correlated) would be suppressed by ‘emotional exhaustion’ and ‘depersonalisation’ (due to their oppositional relationships).

2.5. Method

2.5.1. Design

A questionnaire survey design was employed. Variables were measured to test a mediation analysis. The effect of two predictor variables (‘attachment anxiety’ and ‘attachment avoidance’) on care coordinator ‘response urgency’
was measured. Three subscales of ‘burnout’ were measured as possible mediator variables (‘emotional exhaustion’, ‘depersonalisation’, and ‘personal accomplishment’). All measures were self-report instruments.

2.5.2. Participants

Previous research in this area differs in important ways (participants, design and analysis). As such, a power analysis calculated from the effect sizes and other characteristics of such studies was unlikely to be a valid measure of predicted sample size for the present study. Instead, Jackson’s (2003) method for estimating required sample size for path analysis has been used (20 participants per model parameter). Models in the present study include three parameters. It was estimated that 60 participants would be required to ensure the study was sufficiently powered.

186 care coordination professionals (Community Mental Health Nurses, Occupational Therapists and Social Workers) were approached. These professionals have the role of coordinating clients’ care within secondary care mental health services. Professionals were recruited from working age adult secondary care mental health services, across five NHS Trust in the West Midlands of England. Eligible professionals were identified by team managers. 41 responses were received, representing a 22.04% response rate. Demographic data for the sample is presented in Table 6. While this is a low response rate, the sample age was similar to those reported with comparable populations (Edwards et al., 2006; Gale, Hawley, Butler, Morton
& Singhal, 2016). The present sample had a higher percentage of female participants.

Given the low response rate there was potential for sampling bias. Therefore, the relationships between demographic factors and predictor and mediating factors were examined. No significant relationships were found between gender (independent sample t-tests: ‘attachment avoidance’ $t_{(39)}=-.88, p=.39$; ‘attachment anxiety’ $t_{(39)}=.52, p=.61$; ‘emotional exhaustion’ $t_{(39)}=1.31, p=.20$; ‘depersonalisation’ $t_{(39)}=-.70, p=.51$; ‘personal accomplishment’ $t_{(39)}=.70, p=.49$), age (Pearson’s correlation: ‘attachment avoidance’ $r=.05, p=.77$; ‘attachment anxiety’ $r=.07, p=.66$; ‘emotional exhaustion’ $r=-.19, p=.23$; ‘depersonalisation’ $r=.01, p=.94$; ‘personal accomplishment’ $r=-.02, p=.88$) and profession (one way ANOVA: ‘attachment avoidance’ $F_{(2,38)}=.16, p=.85$; ‘attachment anxiety’ $F_{(2,38)}=.09, p=.92$; ‘emotional exhaustion’ $F_{(2,38)}=.66, p=.52$; ‘depersonalisation’ $F_{(2,38)}=.61, p=.55$; ‘personal accomplishment’ $F_{(2,38)}=.96, p=.39$) and any of the predictor or mediator variables. This suggested that any measured demographic differences between the sample and the population were unlikely to bias the results of the research.
Table 6: Sample demographic data

<table>
<thead>
<tr>
<th></th>
<th>Community Mental Health Nurses</th>
<th>Occupational Therapists</th>
<th>Social Workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
<td>28 (68.29%)</td>
<td>10 (24.39%)</td>
<td>3 (7.32%)</td>
<td>41</td>
</tr>
<tr>
<td>Mean age (SD)</td>
<td>42.57 (9.64)</td>
<td>45.60 (5.83)</td>
<td>46.67 (15.63)</td>
<td>43.61 (9.22)</td>
</tr>
<tr>
<td>Female (%)</td>
<td>21 (75.00%)</td>
<td>10 (100.00%)</td>
<td>2 (66.67%)</td>
<td>33 (80.49%)</td>
</tr>
<tr>
<td>Male (%)</td>
<td>7 (25.00%)</td>
<td>0 (.00%)</td>
<td>1 (33.33%)</td>
<td>8 (19.51%)</td>
</tr>
<tr>
<td>Mean 'attachment anxiety' (SD)</td>
<td>.49 (.42)</td>
<td>.50 (.42)</td>
<td>.39 (.38)</td>
<td>.48 (.41)</td>
</tr>
<tr>
<td>Mean 'attachment avoidance' (SD)</td>
<td>1.25 (.50)</td>
<td>1.16 (.53)</td>
<td>1.12 (.66)</td>
<td>1.21 (.50)</td>
</tr>
<tr>
<td>Mean 'emotional exhaustion' (SD)</td>
<td>7.36 (4.23)</td>
<td>8.20 (4.42)</td>
<td>5.00 (3.46)</td>
<td>7.39 (4.20)</td>
</tr>
<tr>
<td>Mean 'depersonalisation' (SD)</td>
<td>1.69 (2.28)</td>
<td>2.30 (2.71)</td>
<td>.67 (.58)</td>
<td>1.76 (2.31)</td>
</tr>
<tr>
<td>Mean 'personal accomplishment' (SD)</td>
<td>10.04 (1.91)</td>
<td>9.70 (2.21)</td>
<td>8.33 (2.89)</td>
<td>9.83 (2.05)</td>
</tr>
</tbody>
</table>

2.5.3. Measures

To ensure the reliability of the study findings questionnaire constructs were inspected for internal consistency. Consistent with accepted advice, alterations were made to scales where it would improve the internal consistency. It is widely accepted that items which share less than 15% of their variance with the overall construct have an adverse impact on a measure’s reliability (DeVellis, 2003; Field, 2013; Kline, 2000; Oppenheim,
1992). For this reason, items with an item-total correlation of $r<.30$ were removed from each scale.

2.5.3.1. *Psychosis Attachment Measure (PAM)*

The Psychosis Attachment Measure (Berry, Wearden, Barrowclough, & Liversidge, 2006; Appendix F) is a 16 item self-report measure of ‘attachment anxiety’ and ‘attachment avoidance’ which, unlike other questionnaires, is concerned with general relationship rather than a specific romantic relationships. While this measure was originally developed for assessing attachment dimensions with people experiencing psychosis, more recently it has been employed in mental health professional research (Berry et al., 2008). The PAM showed good internal consistency (‘attachment anxiety’ $\alpha=.82$; ‘attachment avoidance’ $\alpha=.75$) and concurrent validity with other measures (Berry et al., 2006).

Cronbach’s $\alpha$ for the present study were acceptable ($\alpha=.73$ and $\alpha=.80$). However, two items (item 3 and 5) on the ‘attachment anxiety’ scale did not meet required standards for item-total correlation ($r>.30$) (Field, 2013). These items were removed. The resulting reliability scores was $\alpha=.76$. The internal consistency of both factors was acceptable.

2.5.3.2. *Abbreviated Maslach Burnout Inventory (aMBI)*

The Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) is the most used measure of ‘burnout’ (Worley, Vassa, Wheeler & Barnes, 2008).
The questionnaire consists of three scales which all showed acceptable levels of internal consistency in the original validation study: ‘emotional exhaustion’ (EE) ($\alpha=0.89$); ‘depersonalisation’ (D) ($\alpha=0.74$); and ‘personal accomplishment’ (PA) ($\alpha=0.77$) (Maslach & Jackson, 1981). However, a recent meta-analysis found heterogeneity of internal consistency across different populations (Aguayo, Vargas, de la Fuente & Lozano, 2011). For this reason, it is recommended that internal consistency should be measured for individual samples.

For the purpose of the present study an amended and abbreviated version was used (McManus, Winder, & Gordon, 2002; Appendix G). Factor Analysis of the measure has confirmed that its structure matches that of the original measure (McManus, Winder, & Gordon, 2002). Using the abbreviated version of the questionnaire placed less demand on participants.

In the present study, internal consistency for EE was ‘good’ ($\alpha=0.83$), and for D was ‘questionable’ ($\alpha=0.66$). While, the D scale fell in the ‘questionable’ range, all items correlated sufficiently with total scale score. It is likely that the low $\alpha$ score resulted from the small number of items comprising the scale (Field, 2013). Internal consistency for the PA scale was also ‘questionable’ ($\alpha=0.61$). Item 9 was removed, as it did not sufficiently correlate with the total score. After the removal internal consistency was ‘good’ ($\alpha=0.75$). This two-item scale was used in the present study.
2.5.3.3. Vignette

To measure ‘response urgency’ a vignette task was constructed (Appendix H). The vignette provided participants with background information. This emulated information they would hold on clients they were working with. It then provided a description of the current ‘crisis’ situation. Participants were presented with eight different possible responses. Decisions on content of the initial vignette were guided by the criteria listed in the International Personality Disorder Examination (Loranger, Janca, & Sartorius, 1997) for the World Health Organisation International Classification of Diseases, 10th Edition. This is a structured assessment for personality disorder diagnoses included in the classification system. Criteria for the Emotionally Unstable Personality Disorder, Borderline Type were inspected for inclusion of symptoms in the vignette.

To validate the vignette a number of steps were taken and the vignette was amended in line with feedback at each stage. Firstly, a small group made up of care coordination, psychiatry and psychology colleagues were consulted about the vignette. They were asked about the representativeness of the vignette to real life clinical practice. Information gained was used to amend the vignette where appropriate.

Secondly, the vignette was provided to two Consultant Psychiatrists. They were asked what diagnosis they feel best matches the client’s presentation, both responded with ‘Borderline Personality Disorder’/‘Emotionally Unstable
Personality Disorder-Borderline Type’. They were also asked how accurately they thought the vignette reflects a diagnosis of BPD. Both respondents rated the vignette as 9/10 (where 0=‘doesn’t fit at all’, and 10=‘fits completely’). This feedback was taken to evidence the clinical validity of the vignette.

Finally, the vignette and response options were provided to two Consultant Clinical Psychologists. They rated the response options on sensitivity and appropriateness. However, in the current study, only two of the eight potential responses were selected by participants. The classifying difference between these two response options (to provide reassurance and visit today/provide reassurance and visit later in the week) was the urgency of the response. In the current sample, the vignette can be understood to measure the urgency with which participants would provide support.

2.5.4. Procedure
Ethical approval to conduct the present study was received from Coventry University Ethics (Appendix I) and also Research and Development approval from five local NHS Trusts (Appendices J-N). The procedure was developed in line with the British Psychological Society’s Code of Conduct (2010).

Potential participants were provided with information about the study, the Participant Information Sheet (Appendix O), from their team manager or team psychologist. Professionals wishing to participate were provided with
the test booklet, either electronically (via Bristol Online Surveys) or on paper copy with pre-paid self-addressed envelopes. Participants first read the Participant Information Sheet, then provided informed consent (Appendix P) and demographic information (Appendix Q). Participants completed the vignette task, then the PAM followed by the aMBI. Finally, there was a debrief sheet (Appendix R). The full test booklet was estimated to require 20 minutes of participants' time. Brief measures (aMBI and PAM) were selected to reduce the strain on participants. All responses were provided anonymously.

The test booklet was administered in this standardised order to all participants. While it would have been preferable to randomise the questionnaire order, to control for order effects, this was not possible due to the nature of postal surveys. As only 22.04% of those provided with a test booklet decided to participate there would have been no way of ensuring a balance of different ordered booklets.

2.5.5. Statistical analyses

To understand the direct relationships between the test variables, bivariate or point-biserial correlation was computed for each effect. To test a mediation model Baron and Kenny (1986) suggest running a number of multiple regression analyses and comparing their coefficients. However, as the outcome variable in the present study is dichotomous, binary logistic regression would need to be employed for relationships involving the
outcome variable. Coefficients from binary logistic regression and multiple regression cannot be directly compared. Instead, given the simplicity of the models (involving three parameters), partial bi-serial correlation was used to test the effect of the predictor variable on the outcome, controlling for the mediator. Due to the hypothesised directional influence of test variables upon one another, one-tailed tests of significance were used.

Given the low response rate, exploratory analysis was also conducted to consider the similarity of the present sample to a number of previously reported samples (on the predictor and mediator variables). One sample t-tests were employed to compare the present sample with a similar mental health professional sample (Berry et al., 2008), a student sample (Wearden, Peters, Berry, Barrowclough & Liversidge, 2008) and a sample of people experiencing psychosis (Arbuckle, Berry, Taylor & Kennedy, 2012) on their attachment dimension scores. The present sample’s ‘burnout’ characteristics were compared to a large sample of medical doctors (McManus, Jonkvik, Richards & Paice, 2011). For the purpose of these exploratory analyses, the original scale item configurations for ‘attachment anxiety’ and PA was used. This ensured that identical scales were being compared. Due to a large number of differences between the present sample and each of the reference samples, no clear conclusions on group differences can be drawn (e.g. mental health professional vs. students). Differences could be due to other unaccounted for sample differences (e.g. gender or age). However, if the analyses indicate a significant difference between the present study and
previous study samples this may suggest further investigation into population differences is warranted.

2.6. Results

2.6.1. Correlational analysis

Bivariate correlation results for all variables are reported in Table 7. Both attachment dimensions were significantly correlated with one another ($r=.34$, $p=.02$). In addition, attachment dimensions were also related to ‘burnout’ subscales. ‘Attachment avoidance’ was significantly correlated with only D ($r=.34$, $p=.01$). ‘Attachment anxiety’ was significantly correlated with all three subscales: EE ($r=.30$, $p=.03$), D ($r=.47$, $p=.01$), PA ($r=-.31$, $p=.03$).

‘Burnout’ subscales were also significantly correlated with one another. D was significantly correlated with EE ($r=.35$, $p<.01$) and PA ($r=-.48$, $p<.01$). EE and PA were not significantly related.

Using point-biserial correlation, of the ‘burnout’/attachment variables, only D was significantly correlated with ‘response urgency’ ($r_{pb}=-.29$, $p=.03$).
Table 7: Test variable correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>Attachment anxiety</th>
<th>Attachment avoidance</th>
<th>EE</th>
<th>D</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment avoidance</td>
<td>.34*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>.30*</td>
<td>.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>.47**</td>
<td>.34*</td>
<td>.35*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>-.31*</td>
<td>-.21</td>
<td>-.16</td>
<td>-.48*</td>
<td></td>
</tr>
<tr>
<td>Response urgency</td>
<td>.09</td>
<td>-.19</td>
<td>&lt;.01</td>
<td>-.29*</td>
<td>.17</td>
</tr>
</tbody>
</table>

* p<.05, ** p<.01
2.6.2. Path models

To test path models, considering the interaction of attachment and ‘burnout’ variables, six partial correlations were calculated (Table 8). These correlations calculated the impact of the attachment variable (predictor) on ‘response urgency’ (outcome) when the ‘burnout’ variable (mediator) is held constant. Where controlling for the mediator variable decreases any significant relationship between the predictor and outcome (as reported in the direct correlations above), a mediation can be said to have occurred. However, where controlling for the mediator variable increases the strength of the relationship between the predictor and outcome, the mediator can be said to be suppressing the effect of the predictor on the outcome.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Control</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment anxiety**</td>
<td>EE</td>
<td>.09</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>.23</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>PA</td>
<td>.15</td>
<td>.18</td>
</tr>
<tr>
<td>Attachment avoidance***</td>
<td>EE</td>
<td>-.19</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>-.10</td>
<td>.27</td>
</tr>
<tr>
<td></td>
<td>PA</td>
<td>-.16</td>
<td>.16</td>
</tr>
</tbody>
</table>

*direct effect (r=.09, p=.26), ** direct effect (r=-.19, p=.12)

As neither ‘attachment anxiety’ nor ‘attachment avoidance’ had shown significant correlations with ‘response urgency’, none of the mediating variables could be measured to test for mediation effects. However, one
partial correlation was significant. When controlling for D, the correlation between ‘attachment anxiety’ and ‘response urgency’ increased and was statistically significant ($r=.23$, $p=.05$).

Figure 2 indicates the path model where D is positively correlated with ‘attachment anxiety’, but where it also acts to suppress the effect of ‘attachment anxiety’ on ‘response urgency’. The product of the two indirect correlation coefficients (‘attachment anxiety’ to D, and ‘attachment anxiety’ to ‘response urgency’ controlling for D) is greater than the direct relationship ($r=.11$), indicating that the indirect path is stronger.

**Figure 2**: ‘Attachment anxiety’-‘depersonalisation’ path model

$*p<.05$, $**p<.01$

2.6.3. Exploratory analysis

2.6.3.1. ‘Attachment anxiety’

Differences between the present sample and reference samples on ‘attachment anxiety’ are reported in Table 9. A one sample t-test indicated no statistically significant difference in mean ‘attachment anxiety’ scores between the current sample and another mental health professional sample
(Berry et al., 2008). However, the current sample ‘attachment anxiety’ scores were significantly lower than mean scores from a student sample (Wearden et al., 2008; \( t_{(40)}=-13.24, p<.01, d=-2.07 \)) and a sample of participants experiencing psychosis (Arbuckle et al., 2012; \( t_{(40)}=-10.05, p<.01, d=-1.57 \)). Both of these differences constitute a large effect.

<table>
<thead>
<tr>
<th>Sample</th>
<th>( T )</th>
<th>( p ) (2-tailed)</th>
<th>( M-BM^* )</th>
<th>( d )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>-.24</td>
<td>.81</td>
<td>-.01</td>
<td>-.04</td>
</tr>
<tr>
<td>Student</td>
<td>-13.24</td>
<td>&lt;.01</td>
<td>-.75</td>
<td>-2.07</td>
</tr>
<tr>
<td>Psychosis</td>
<td>-10.05</td>
<td>&lt;.01</td>
<td>-.57</td>
<td>-1.57</td>
</tr>
</tbody>
</table>

\( ^*M \) (current study mean), \( BM \) (baseline mean, e.g. professional sample)

2.6.3.2. ‘Attachment avoidance’

Present study differences to reference samples on ‘attachment avoidance’ are presented in Table 10. No significant difference was found between the previous and current professional samples on ‘attachment avoidance’. The current sample had a higher mean ‘attachment avoidance’ score than the student sample. This difference was approaching significance, with a small effect size (\( t_{(40)}=-1.92, p=.06, d=-.30 \)). The current sample had a significantly lower score on ‘attachment avoidance’ than the sample of participants experiencing psychosis (\( t_{(40)}=-2.30, p=.03, d=-.36 \)). This difference in mean scores constitutes a medium effect size.
<table>
<thead>
<tr>
<th>Table 10: Sample differences in ‘attachment avoidance’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
</tr>
<tr>
<td>Professional</td>
</tr>
<tr>
<td>Student</td>
</tr>
<tr>
<td>Psychosis</td>
</tr>
</tbody>
</table>

2.6.3.3. ‘Burnout’ subscales

Table 11 shows differences between the current sample and a sample of UK doctors (McManus et al., 2011) on ‘burnout’ subscales, as measured by the aMBI. Using one sample t-tests, no significant difference was found between the current sample and the reference sample on EE and PA. However, the current sample had significantly lower scores on D than the reference sample \( t(40)=-14.19, p<.01, d=-2.22 \). The degree of this difference can be considered a large effect.

<table>
<thead>
<tr>
<th>Table 11: Sample differences in ‘burnout’ subscales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale</td>
</tr>
<tr>
<td>EE</td>
</tr>
<tr>
<td>D</td>
</tr>
<tr>
<td>PA</td>
</tr>
</tbody>
</table>
2.7. Discussion

The present study found that attachment dimensions correlated with ‘burnout’ processes. ‘Attachment anxiety’ correlated with all three processes, while ‘attachment avoidance’ specifically related to ‘depersonalisation’. These results are similar to those found by Leiter and colleagues (2015) in their study. Similarly, they found that ‘attachment anxiety’ and all three processes were related. However, their results showed ‘attachment avoidance’ to be related to ‘personal accomplishment’. When comparing the results of the two studies more closely, the effect size for ‘personal accomplishment’ in the present study is greater. Leiter and colleagues had a significantly larger sample size (N=1624) which would have been more able to detect this small effect. In addition, while Leiter and colleagues did not identify ‘depersonalisation’ as significantly related to ‘attachment avoidance’, they used a subtly different measure which looks at more global cynicism.

The overall findings of the present study do replicate Leiter and colleagues’ findings of a relationship between attachment dimensions and ‘burnout’. One possible explanation for this finding could be the lower levels of effective help-seeking among those with high attachment dimension scores. This lack of supportive relationships may leave these individuals more vulnerable to exhaustion and its resultant processes.

In contrast to findings from previous attachment (e.g. Berry et al., 2008; Jones et al., 2015) and ‘burnout’ (e.g. Holmqvist & Jeanneau, 2006) research, only ‘depersonalisation’ was found to have a significant direct effect on care provision (‘response urgency’). One possible explanation for
the differing attachment results could be variation in the measures of caregiving. Much of the previous research has measured more general effects, e.g. therapeutic relationship, rather than specific behaviours (as measured in the present study). Again the operationalisation of care in the present study may also provide insight into the observed lack of relationship between care and ‘emotional exhaustion’. Holmqvist and Jeanneau measured care attitudinally, while the present study measured endorsed behaviour. It is possible that ‘emotional exhaustion’ may exert an effect on the levels of rejecting attitudes professionals hold, but not on any planned behavioural rejection.

When considering the interaction of attachment and ‘burnout’, a significant relationship was identified with ‘attachment anxiety’ and ‘depersonalisation’. Professionals higher in ‘attachment anxiety’ were also more likely to engage in ‘depersonalisation’. In turn, higher ‘depersonalisation’ among professionals was related to lower levels of ‘response urgency’ to the client in crisis. When the effect of ‘depersonalisation’ was controlled for, higher ‘attachment anxiety’ was related to higher levels of ‘response urgency’. This suggested that ‘depersonalisation’ suppressed the effect of ‘attachment anxiety’. It was possible that professionals used ‘depersonalisation’ as a coping strategy for managing ‘attachment anxiety’. That is, the anxiety about the attachment relationship is alleviated interference with professionals’ attunement to the personhood of the client. Thus the tendency to react with greater urgency is suppressed by the effect of the coping strategy. Similar to infant research (Mills-Koonce et al., 2011), the present study shows an interactive effect of
‘attachment’ and stress-related factors on care provision. However, attachment-responsiveness issues are not simply mediated by the stress-related factor. Rather, there is a complex oppositional relationship between ‘attachment anxiety’ and the possible coping strategy of ‘depersonalisation’.

While participants in the current sample may have used ‘depersonalisation’, when contrasted with previous research this coping strategy was used at a significantly lower rate than a sample of doctors working across a range of diverse specialties (McManus et al., 2011). This could indicate a possible difference in the levels to which mental health professionals are able to hold onto clients’ humanity, compared to health professionals working in physical health settings. This group difference, along with differences in attachment dimensions (when compared with a clinical and student sample) suggest the utility of population comparison studies (e.g. mental health professional vs. matched controls; or mental health vs physical health professional).

The findings from the present study have a number of clinical, organisational and policy-level implications. At a clinical level, the finding that professionals’ ‘burnout’ and attachment dimensions can affect care provision to an individual with complex needs suggests a role for reflective practice. Indeed, when setting out potential models for services in helping people who receive ‘personality disorder’ diagnoses, Bateman and Tyrer (2004) point to a specific role for psychological consultancy, arguing that this could facilitate multi-disciplinary team reflection on their role in the interpersonal exchange
with clients. However, for some professionals, this consultation may not be enough. Bateman and Tyrer suggest that working with this client group is simply not suitable for some professionals. If attachment representations, as a relatively enduring intrapersonal construct, do affect professional care provision, it may be one factor which constitutes a suitability criteria for professional working with specific clients. One implication of this is that more thought should be given to the interaction of professional attachment dimensions and client difficulties when considering the most appropriate care provider in the team.

While psychologically informed principles may help professionals provide more responsive care, the significant relationship between care provision and a ‘burnout’ variable indicates a need for change at an organisational level also. A range of work-related factors have been implicated in ‘burnout’ among mental health professionals: size of caseload, amount of job control, presence of reward structures, fairness, team cohesion and organisational change (Lasalvia et al., 2009). More supportive work environments could reduce ‘burnout’ and any related effect to care provision for this vulnerable group. However, this type of organisational change would require significant resourcing and there is some evidence to suggest that this level of change is inconsistent with current government policy. For example, research has continually found that austerity is related with higher levels of mental health difficulties (Psychologists Against Austerity, 2015), leading to greater demand for services. In turn, despite swathes of rhetoric to the contrary, funding for mental health services has been significantly cut over the course
of the last two parliaments (The King’s Fund, 2015). In this sense, fundamental changes to distal factors (e.g. national policy and funding) could provide some change to proximal interpersonal factors (professional’s ability to provide responsive care).

2.7.1. Limitations

The present study does have a number of limitations. Principally, it is possible that the study may be underpowered which could have led to type II error. A sample size calculation based on a one-tailed test, setting power at 80%, indicated that to identify whether the relationship between ‘attachment avoidance’ and ‘response urgency’ was true, a sample of 175 would be required. The correlation coefficient for this relationship was $r= -0.19$. Cohen (1988) indicates that this would constitute a small effect. This suggests that while the study is sufficiently powered to detect medium-large effects, it is underpowered to detect small effect sizes. As such, the effect of some factors, (such as the negative correlation between ‘attachment avoidance’ and ‘response urgency’) may have been incorrectly dismissed.

Another factor which could have affected the power and validity of the findings was the use of a vignette measure. The reliability and validity of clinician self-report of planned behaviour has not been fully evidenced (Hrisos et al., 2009). As such, it is unclear whether the vignette reported behaviour is representative of true practice. Additionally, the predictor variables (‘burnout’ and attachment) were also measured using self-report
instruments. Self-report instruments are often criticised for their sensitivity to social desirability, and it is possible that participant responses may have been affected by this. However, the measured constructs (attachment dimensions and 'burnout') are primarily observed using such measures, thus it is difficult to consider other measurement techniques. Despite this, the issue of social desirability was considered and steps were taken to control for it: anonymity was provided, questionnaires were administered in a non-face-to-face manner and care was taken to use non-judgemental language.

One final limitation of the present study was the focus on professional intrapersonal factors. While conducting the research, the chief investigator, through conversations with gatekeepers, was made aware of the large number of material difficulties (e.g. high caseloads) which also contribute to professional experience. While inferences from previously evidenced relationships (e.g. 'burnout' and work stressors) can be drawn, the present study fails to directly account for the effects of a number of other potentially relevant work-related environmental factors.

2.7.2. Future directions
The findings from the present study indicate an interactive role for ‘attachment anxiety’ and ‘depersonalisation’ on professional care provision to a client in crisis. However, the study is limited by its sample size and design. These two problems would need to be considered carefully in any future replication study.
While more naturalistic observation designs would generate more ecologically valid findings, such designs face a number of challenges. Measures are unlikely to be ethical (given client distress) or practical (given the need for a large $N$ and the relative uncertainty of when interactions may occur). However, some data on responding could be captured retrospectively using client recorded data, e.g. through an audit of electronic records.

Alternatively, future research could consider employing a pragmatic approach to the design challenges. One viable option would be a mixed-methods study which allowed for the rigorous quantitative measurement of professional attachment and ‘burnout’, alongside rich qualitative data, capturing the idiosyncrasies of professional responses to clients in crisis. Quantitative analysis could inform sample recruitment and interpretation of data considering participant attachment and ‘burnout’ scores. Following participant selection, professionals and clients would consent to conversations being recorded. This data would be interpreted using conversation analysis. This would allow professional intrapersonal differences to be reliably measured while considering these differences in light of the more idiosyncratic and specific responses in the interpersonal environment.
2.8. Conclusion

The current study investigates the effect of intrapersonal differences on mental health professional caregiving. Professionals’ use of ‘depersonalisation’ of clients suppressed the effect of higher levels of ‘attachment anxiety’. That is, higher levels of ‘attachment anxiety’ would have occurred alongside greater approach behaviours to clients in crisis had ‘depersonalisation’ not suppressed this. Further support for these findings is required using more naturalistic measures of professionals’ care responses.
2.9. Reference List


Newton-Howes, G., Tyrer, P., Anagnostakis, K., Cooper, S., Bowden-Jones, O., & Weaver, T. (2010). The prevalence of personality disorder, its


Chapter Three

(Re)searching for a role: a repertory grid investigation

Word count (excluding titles, tables, references and footnotes): 4000

Paper prepared for submission to Reflective Practice: International and Multidisciplinary Perspectives (see Appendix S for notes to contributors)
3.1. Abstract

This reflective chapter documents my journey through the research process. It utilises the repertory grid technique to investigate changes in the ways I construe research, knowledge creation and my role within this. I discuss the link between my core constructs and my preferred researcher roles. I provide a reflective account of how my epistemological position relates to these constructs and the meaning of this for my empirical and literature review papers. A final exploration considers the findings from the repertory grid applied to the meta-processes involved in constructing this reflective paper.

3.2. Keywords

Repertory grid; epistemology; clinical psychology; research roles

3.3. Introduction

In July, 2014 I was staring into the blankness of my research proposal. ‘How am I expected to know what I want to do? What do they mean, “what is your epistemological stance?” I don’t have a clue.’ But then I knew what I had to do – ‘let’s pin down the answer to this, let’s measure it, let’s see how it changes over time.’ Maybe if I’d have taken a step back and observed how I approached this problem, it would have been clear what my epistemological stance was.
At that point, I did not step back. Instead, I concerned myself with answering these questions. Explicitly, the questions were: who am I as a researcher? What do I think about the ways clinical psychologists can approach and engage with research? And, is this going to change as my thesis progresses?

To answer these questions I have employed a constructivist technique. Personal Construct Psychology (Kelly, 1995) is a school and theory of human behaviour. It posits that our behaviour is driven by how we anticipate the future and that how we construe the world determines what we anticipate. That is, we are scientists with models of how the world works and we use these models to predict what is going to happen. These predictions drive our behaviour. We personally, and individually, construct a way of seeing the world. I wanted to understand how I construed research, my place within it and how this may change as I fully engage with the thesis research process.

3.4. The method

The repertory grid technique is a tool for investigating construing systems (Kelly, 1955). A repertory grid consists of a topic (e.g. research roles). Within this topic lie a number of elements (different examples of the topic area). The grid then has a number of constructs which can be applied to understand the elements.
Jankowicz (2004) explicitly set out the method of constructing, using and analysing repertory grids. This method was employed for my reflections. I selected elements falling within the topic of research roles. These were identified by considering the different roles I know clinical psychologists to have taken (Table 12). Triadic elicitation (Kelly, 1955) was employed to uncover my construing system for understanding these elements. Three elements are selected and then you ask ‘how are two of these similar and different from the other’. This elicits a construct pole (e.g. sad), and then we ask, ‘as opposed to?’ This elicits the contrast pole (e.g. empty). The contrast pole helps to more fully describe the construct.

<table>
<thead>
<tr>
<th>Element title</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>Working as a Trainee Clinical Psychologist, with a thesis to write</td>
</tr>
<tr>
<td>Therapist</td>
<td>Providing therapy to clients, with no responsibilities for research, service evaluation or development</td>
</tr>
<tr>
<td>Split-post</td>
<td>Working in the NHS as a clinician and also part-time at a university as an academic</td>
</tr>
<tr>
<td>PhD</td>
<td>Undertaking a PhD after training</td>
</tr>
<tr>
<td>Trial</td>
<td>Working on a clinical trial, e.g randomised control trial for a psychological therapy</td>
</tr>
<tr>
<td>Service eval.</td>
<td>In a clinical setting with a mix of responsibilities, including service evaluation and development</td>
</tr>
</tbody>
</table>
Using this method I constructed a grid of six elements (research roles) and 8 constructs. A further construct was provided to summarise the extent to which the roles were consistent with my self (alien to me as opposed to coherent to my personhood). Elements were rated on a five point scale. In my grid, five represents the preferred pole, i.e. how I prefer a role to be. The grid is presented in Figure 3.

3.5. Beginning my journey

Before completing the grid and analysing the data I was already aware of the effect my past experiences had on element selection. I came with preconceptions that elements such as PhD or Trial would be superior to Therapist. At the time, I felt that these roles allowed psychologists to help larger numbers of people. These ideas were largely supplied by my contact with other psychologists up to this point. Most of my experience had been in assessment (‘scientific’ measurement) and working alongside psychologists developing services. Many of the discussions I observed and participated in were on the topics of assessment and service development, considering questions around how psychologists can prove our worth. In these conversations I was predominantly an observer, absorbing others’ opinions on what psychologists’ roles were in developing and employing theory and using their unique research skills to justify their expense. In this sense, I began to see the worth of psychologists in relation to the extent to which they developed and tested new ideas. These beliefs resulted from my observations of others, but through the research process I had the opportunity to fully engage with the issues as a researcher in my own right.
This is where the repertory grid technique could help me examine changes in my construing of psychologists as researchers, more specifically, of myself as a researcher.

I constructed and completed this original grid in July 2014 (Figure 3). The information drawn from it provides an insight into how I construed research and my place within it at this time. A wide range of techniques can be employed to analyse repertory grids (Jankowicz, 2004) and only a small number are employed here. Eyeballing describes a form of analysis where visual inspection is used to note pertinent factors (colour coding aids this) and cluster analysis describes a statistical technique used to identify constellations of similar elements or constructs.

<table>
<thead>
<tr>
<th>1</th>
<th>Current</th>
<th>Therapist</th>
<th>Split-post</th>
<th>PhD</th>
<th>Trial</th>
<th>Service eval.</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tunnel-visioned</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>Linking</td>
</tr>
<tr>
<td>Artificial</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>Real-life</td>
</tr>
<tr>
<td>Up in the clouds</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>Helping people</td>
</tr>
<tr>
<td>Alone</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>Part of a team</td>
</tr>
<tr>
<td>Powerless</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>Influential</td>
</tr>
<tr>
<td>No sense of achievement</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>Time limited</td>
</tr>
<tr>
<td>Complete independence</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>Safety</td>
</tr>
<tr>
<td>Regiment</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>Creative</td>
</tr>
<tr>
<td>Alien to me</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>Coherent to my personhood</td>
</tr>
</tbody>
</table>

*Figure 3: Reflective grid, July 2014*
Using WebGrid (Gaines & Shaw, 2010) cluster analysis was used to understand how potential research roles may be understood similarly. This analysis indicated two particular clusters. Firstly, the service evaluation and split-post roles clustered highly together, and eyeball analysis indicated little difference on construct scores. This was unsurprising. I had felt the roles similar, both involving an even distribution of clinical and research work.

Secondly, my current role as a trainee clustered with doing a PhD. I viewed both of these roles as more creative and time limited, as opposed to regiment and having no sense of achievement. However, they were also construed as more alone and artificial (referring to them not being real-life, but being some kind of temporary state). The roles did differ in their coherence with my personhood; the trainee role seemed more consistent with who I am. This may reflect the different construing of their sense of up in the clouds, as opposed to helping people. The trainee role was construed as more helping people. While the role of conducting research was important to me, this needed to sit alongside doing something which I felt had an observable positive impact on people’s lives.

The therapist and trial roles do not cluster highly with any of the other roles. Eyeball analysis showed that being a researcher on a trial was construed as being part of a team, time limited and influential, but also artificial and regiment. My consulting of randomised control trials and NICE guidance
showed me that clinical work conducted in trials did not always resemble what actually happened in mental health teams. However, what did happen in these teams, as represented by the therapist role, was not construed positively. It was understood as completely alien to me and my values with no sense of achievement.

When I began training, not so long prior to July 2014, I came with little therapeutic experience. Therapy was scary, but to me academia was comparatively comfortable. I think that my construing of research and the role I could take at this time was influenced by these experiences. There was a strong desire to prove my usefulness (and influence) through academics, influence attributed to roles such as working on a clinical trial. While the relative preference for the split-post, service evaluation and current trainee roles suggests that helping people in an observable way (e.g. through direct clinical work) was important, this alone was not enough (as evidenced by my construing of the therapist role). My preferred role was being somebody who was academic, but also making an observable difference to people’s lives.

3.6. Changes in what I think
To consider changes in my construing of research roles, in February 2016 (toward the end of the thesis research process) I re-elicited my grid. Using the same elements as in July 2014, I used triadic elicitation to re-establish my construing system. To some extent, some of these constructs remained the same. The ratings for the constructs which remained from the original
grid could be compared between time points. Changes are illustrated in the change grid, *Figure 4* (elements are ordered according to level of change).

![Grid of construct rating change between July 2014 and February 2016](image)

These numerical changes represent changes in *what* I think about the particular elements. The overall extent of change can be analysed using WebGrid which provides percentage scores for the extent to which element ratings remain the same. This is illustrated in *Figure 5*. 
In some of the elements there was significant stability, particularly in PhD and my current role. However, the way which I construed some roles (e.g. trial researcher and therapist) on the constructs showed some change in my appraisals.

I now construed working on a clinical trial as more *tunnel-visioned*, more *alone* and more *regiment*. Throughout the research process, particularly in appraising papers for my literature review, I have become increasingly aware of the inadequacies of many mainstream research designs. This was particularly apparent when reading randomised control trials. I found the descriptions of client’s difficulties and the prescribed treatment protocols to be inconsistent with the complexity of human experience observed during my own clinical work. Indeed, most often, psychologists seem to confirm their
initial hypotheses. Those working from a CBT perspective find CBT to be superior; those working from a dynamic perspective find psychodynamic models to be superior etc. It seemed the findings of the research were a foregone conclusion; where researcher bias might have greater effect on outcomes than any true analytic or linking process. This was also apparent in my literature review. While the papers were not randomised controlled trials, they often did involve widely accepted sampling techniques. An example would be papers which derived samples of people labelled with ‘Borderline Personality Disorder’, but excluded ‘comorbid mood disorders’. The rationale was to ensure homogeneity of the sample. However, researchers failed to account for other important social sources of heterogeneity (e.g. poverty) with the same rigour. Sampling processes were based on the dominant narrative in mental health, rather than with any consideration to the validity and reliability of categorisation. Sampling followed a regiment rather than creative methodology. At this later point I was now more aware that dominant research practices (e.g. randomised controlled trials) were not consistent with my personhood, and my clinical experience.

The way I employed my constructs to understand the role of therapist were the most changed. While the role of trial had become less preferential, the role of therapist had become more. I think this is because my work as a therapist had significantly changed over this time. When beginning training I was regimented, following CBT protocols. However more recent experience of using Cognitive Analytic Therapy had shown me that I could work in a more creative way, linking past experiences to present within a time limit,
giving a sense of achievement. Parallel to this I had experienced difficulties in my empirical research, struggling to recruit. I saw these difficulties as really pertinent to my research topic. I was measuring burnout, but staff were too burnt out to complete my questionnaires. These two processes demonstrated to me that hearing people’s stories (whether while trying to collect data or during therapy) was a meaningful research process in itself.

3.7. Changes in how I think

While changes in the ratings indicates changes in what I think, changes in the specific constructs elicited indicates changes in how I think. When I re-elicited the grid in February 2016 (Figure 6), some of the constructs used to understand the roles remained the same, however there were also some additional constructs and one which was no longer used. This represents a change to my construing system; a change to the structure which I have used to understand research roles.
An example of a newly elicited construct was *one role*, as opposed to, *different activities*. At the beginning of the research process I was enthusiastic about my project. Now, I’m enthusiastic, but also fatigued. From the beginning of my final year I have felt a sense of pressure and at times this has felt all encompassing. While struggling with recruitment, I found myself slumped in my supervisor’s office, exhausted by the endless effort and rare pay-off. Support and solution-focused discussion helped. What also helped was the sense that the next day I would be on placement, that later in the week we had teaching. In this sense I have become more aware of the
diversity of work that roles can bring, and often this diversity can provide some respite.

A further addition to the construing system was *agent of somebody else*, as opposed to, *ownership*. This construct distinguished between the trial element and the five other roles. Throughout my training I feel I have worked with people where there was a real sense that others (both groups and individuals) had real power over their lives. This disempowerment, observed both in colleagues and clients, seemed to co-occur alongside a sense of hopelessness and burnout. Taking an acceptance and commitment approach (Hayes, Strosahl & Wilson 2012), these people were not living a life, or doing a job according to their own values. Often they were living a life, or doing a job, according to the pressure of other people’s values. This could be living their life under populist societal values, where people felt shamed for their struggles, or doing a job with the requirement of adhering to strict organisational protocols inconsistent with their own professional self. As such, it has become clear that some roles may involve strict adherence to other people’s values and beliefs (inconsistent with my own); that is, I would be an *agent* of their agenda, as opposed to really *owning* my actions as a researcher.

As well as new constructs being added to my system, one construct fell out of use: *powerlessness*, as opposed to, *influential*. This construct was not re-elicted. It no longer differentiated between roles. I felt that in all roles, due to
the resources afforded to me, I would hold a fair amount of power. It no longer seemed clear which research roles were more powerful and which were less powerful. While clinical trials do have power, in the sense they have power to change national policy, does this power equal more or less than the power to help somebody create change through therapy? In this sense, influence was no longer able to quantitatively differentiate between the different constructs. I found that another new construct, surface, as opposed to, meaningful, better deals with differentiating constructs according to their qualitatively different forms of influence (e.g. whether the influence I have over people’s lives seems really meaningful and useful or just a surface imposition). That is, I moved away from construing roles according to the amount of power they held, to a position of differentiating them according to the type of power they held.

Another way of measuring changes in how I think about research roles is to consider changes in the hierarchy of the structure. While the previous analysis dealt with additions and losses to the structure, the grid can also be analysed to consider changes to shape and hierarchy of the constructs within the construing system. The supplied construct (alien to me, as opposed to, coherent to my personhood) expresses a sense of what is important to me. A Match statistic can be calculated, using WebGrid, to consider the extent to which other construct’s ratings match the provided construct. This shows the extent to which the individual constructs talk to my sense of self. The percentage match of each construct with this supplied construct is illustrated in Figure 7.
Observing this data, it seems clear that at this current time it is most important to me that my future research role is one in which I am linking ideas, being creative and having a sense of ownership. In addition, now more than before, the extent to which roles are based in the real-life experiences of the people we strive to help (as opposed to being artificial) will speak to the sense of which role is coherent to my personhood. Through meeting the staff I hoped my research would help, by attending their meetings and working alongside them on placement, I have understood how important it is to have a real sense of what their work and life experiences are. I have understood, that to help these individuals, we not only need a quantitative sense that burnout and relationships can be problematic, but I also need to understand the meaning and complexities around this.
3.8. What about me?

When considering this match to my personhood, I was left wondering, ‘but what is it that I actually value?’ Our constructs have a hierarchy. More concrete and specific constructs relate to higher order, more core constructs. So, what was core to these more specific ways of construing the research process? Kelly (1955) outlined the technique of ladderling, where one asks of a preferred construct pole, ‘why is this important? And what is the contrast of this?’ For instance, linking is important to me because it creates something, as opposed to, blindly continuing in the same direction. In this sense the newly elicited construct is superordinate. One can then ladder upwards and the constructs will become increasingly core to my personhood. I used this procedure for each elicited construct, in both the first and second grid. Two examples are presented in Figure 8.

Figure 8: Elicited constructs laddered upwards to their core constructs
Figure 8 shows that there is something about my way of seeing research and the research roles as being understood by the extent to which I am needed, as opposed to, unwanted. Thus to me, the utility of research and my research role has remained unchanged: to feel needed, as opposed to, unwanted. However, the specifics and subordinate ways in which the roles are understood as having qualities of one of these poles has changed. For instance, there were changes in the relative importance of subordinate constructs in predicting whether the role will be consistent with my core construct/value. While initially being needed involved a sense of being linking, time limited, influential and creative, at the end of this research process it no longer required the construing of influence, but it did now involve having a sense of ownership over what I do, dealing with real-life problems in a meaningful way.

3.9. Enacting roles, considering core constructs

My empirical and literature review research were based on a logical positivist epistemology. I attempted to reduce human experience to ‘valid’ and ‘reliable’ measurable constructs (e.g. measuring the relationship between attachment dimensions, burnout and ‘response urgency’). However, as the research has progressed I have come to place more value on the quality of the information provided, the information given in the process (for example, recruitment was hard because staff were so overworked). I have been left with a sense that quantitative positivist approaches to psychological research may not always capture the true meaning of human experience, and in this sense may not always represent the real-life events that people endure. This
is the point where I panic: ‘Oh, am I an interpretivist who has chosen to do positivist research?’ I began the process wanting to do research which was ‘tidy’ (as my research supervisor put it), but the process has shown me that people are actually very messy.

I went back to the study of epistemology and reflected on my own beliefs about knowledge and the purpose of research. Drawing on my core construct of being needed and on my reading of epistemological stances I realised I had forced a false dilemma on myself. I had set up a place where I felt I had to be positivist and believe that I really had measured something representing physical reality, or I had to be interpretivist and believe all knowledge was an interpretation. However, above all of this is my need to be useful and needed as a researcher. This does not particularly dictate that I need subscribe directly to either of those two choices I presented myself with. Instead, it suggests that my epistemological stance is one of pragmatism. On pragmatism, Gray (2014) reports that ‘an ideology is true only if it works (particularly in promoting equity, freedom and justice) and generates practical consequences for society’ (p.28). Thus my research and its findings can have truth (i.e. I am not an interpretivist) but this is based in their utility, not in their representation of the material world (i.e. I am not a positivist).

On a personal level, what I hoped and aimed for at the beginning of the project is the same as what I hoped and aimed for at the end of the project:
that the research might influence how staff were supported. My plan was to evaluate the impact of specific intrapersonal variables on staff practice to better understand the changes that might be needed and the impact this could have for staff and service users. I needed to choose a methodology which was appropriate to this end. My methodology does not fully meet this aim but that does not mean it isn’t useful. It provides data indicating that there may be a need for supporting staff better, placing less pressure on them and generally for organisations to treat staff in a more compassionate manner. Ultimately, the power to make this change lies with organisations and government, and in influencing these structures statistical knowledge can be useful (thus true).

In summary, I hope my research is true, not because (as I originally believed) it is measuring something objectively factual in a material sense, but because it has real world consequences. This stance is clear in my preferred future role – one where I can identify real world problems and conduct research which leads to meaningful action (a role where I will feel needed).

3.10. The meta-process

Interestingly, many of the dilemmas I have faced with my empirical and literature review papers, the split between interpretivism and positivism, have also arisen as I have written this reflective piece.
Originally, I thought that the repertory grid would make my reflections ‘tidy’, a position I maintained well up until I began trying to analyse the grids. At the beginning of this piece I stated that if I had taken a step back from the process and looked at my plan for reflection it might have been clear what epistemological stance I was taking. I was hoping to apply a positivist approach to measuring changes in my internal belief system, a positivist approach to measuring how I construct the world.

When I began to think about analysing the grids I found myself searching endlessly for the ‘right’ way to do it, the perfect statistical test which would provide me with the answer to how I had changed. Alas… Following a discussion with scholars of the repertory grid technique it became painfully clear that to continue down this line was unlikely to provide me with real insight into my experiences, nor was it likely to lead to meaningful action. To really take a pragmatic approach I needed to get messy and reflect on the process and the qualitative experiences. I needed to delve into the number of different ways the information could be understood. In this sense, I (and the repertory grid technique) have not provided an objective account of my experiences. Instead, I have provided a pragmatic reflection – not empiricism, but story telling. A very useful story, which leads me to a better understanding of who I am, what I want to do and how I can help people and be needed.
3.11. Reference list


Appendices
Appendix A: Clinical Psychology Review instructions to authors

Clinical Psychology Review publishes substantive reviews of topics germane to clinical psychology. Papers cover diverse issues including: psychopathology, psychotherapy, behavior therapy, cognition and cognitive therapies, behavioral medicine, community mental health, assessment, and child development. Papers should be cutting edge and advance the science and/or practice of clinical psychology.

Reviews on other topics, such as psychophysiology, learning therapy, experimental psychopathology, and social psychology often appear if they have a clear relationship to research or practice in clinical psychology. Integrative literature reviews and summary reports of innovative ongoing clinical research programs are also sometimes published. Reports on individual research studies and theoretical treatises or clinical guides without an empirical base are not appropriate.

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<td>Are the results presented in a way that is appropriate and clear?</td>
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<td>Is the conclusion comprehensive?</td>
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<td><strong>TOTAL</strong></td>
<td><strong>71.9%</strong></td>
<td><strong>81.3%</strong></td>
<td><strong>71.9%</strong></td>
<td><strong>71.9%</strong></td>
<td><strong>68.8%</strong></td>
<td><strong>87.5%</strong></td>
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# Appendix C: Completed data extraction form

<table>
<thead>
<tr>
<th>Reference</th>
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</table>

<table>
<thead>
<tr>
<th>Aims/questions/hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>alexithymia mediates the effect of attachment on BPD development.</td>
</tr>
<tr>
<td>* BPD associated w/ attachment</td>
</tr>
<tr>
<td>* BPD associated w/ alexithymia</td>
</tr>
<tr>
<td>* alexithymia mediates association between BPD + attachment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-sectional, between-group design</td>
</tr>
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<table>
<thead>
<tr>
<th>Participant characteristics</th>
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</thead>
<tbody>
<tr>
<td>Demographics (inc. number)</td>
</tr>
<tr>
<td>France, Belgium, Switzerland</td>
</tr>
<tr>
<td>- 98 female</td>
</tr>
<tr>
<td>- 540 participants</td>
</tr>
<tr>
<td>- mainly upper-middle class</td>
</tr>
<tr>
<td>- 31 controls (matched to MCI)</td>
</tr>
<tr>
<td>- M age 34.02, M age Com 16.35</td>
</tr>
<tr>
<td>- 18.00</td>
</tr>
<tr>
<td>(at least 5/9 of DSM-IV BPD criteria)</td>
</tr>
<tr>
<td>Did not exclude on comorbidities</td>
</tr>
<tr>
<td>DSM-IV criteria for an Axis I disorder, inc. BD, ADHD, ODD, restless legs syndrome, an ODD, and O or disruptive behavior disorders (combined Axis I or 20%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment</td>
</tr>
<tr>
<td>Borderline features</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Relationship Styles Questionnaire</td>
</tr>
<tr>
<td>Structured Interview for DSM-IV Borderline Personality Disorder (SIBPD) scoring 0-3 for each symptom criterion</td>
</tr>
<tr>
<td>Severity score 0-27 overall</td>
</tr>
<tr>
<td>SIBPD Schedule for Sleep and Eating Disorders (SIBPD-ES) to assess comorbidity</td>
</tr>
<tr>
<td>TRS-20: Alexithymia</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Data analysis</th>
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</thead>
<tbody>
<tr>
<td>2-tailed tests to consider differences between the two groups</td>
</tr>
<tr>
<td>Correlations for individual associations between variables</td>
</tr>
<tr>
<td>2 regression using Baron Kenny's (1986) procedure to test mediation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary of findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2ship scores on alexithymia (BPD group)</td>
</tr>
<tr>
<td>More intense MCI (attachment) in BPD group</td>
</tr>
<tr>
<td>BPD significant in MCI.</td>
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<tr>
<td>Bship between MCI + borderline severity partially mediated by alexithymia.</td>
</tr>
<tr>
<td>Theoretical</td>
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<td>-------------</td>
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<tr>
<td><em>Some parts of MoS overlap w/ BPD diagnostic criteria points indicating borderline personality.</em></td>
</tr>
</tbody>
</table>

**Critique**

*Using addresses, however, more clear data, less confounding when looking at development of BPD.*
*Only preadolescents upper middle class.*
*Use the relationship questionnaire (Model of Self/Other), 8-item measure.*
*Did not exclude on comorbidity.*
*Lacks age vs. stage.*

**Quality assessment score** 3.4/4.0

**What is the relationship between borderline features and attachment dimensions?**

- Neg. Mos (attax) sg related to BPD severity in adolescents.
  - Part of this can be explained by alexithymia.
- Neg. Mos because in accordance w/ others' or partner's expectations - less opportunity to identify feelings.
- Identification of feelings compromised, problems w/ reflective functioning leaves vulnerable to manifest symptoms of BPD through triggered defenses in interpersonal situations.
  - Because anxious about mortality, abandonment.

**What is the clinical utility of attachment dimensions for understanding borderline features?**

- Therapies aimed at increasing emotional conscious may also be useful for adolescents as appear to be lagging behind peers even in early stage.
  - MBT
  - TFP

**Anx. INT.**

- DET (provides explanations & narrative) in this early stage. Suggests use of preventative parenting.
  - Early intervention for children w/ Mos.
Appendix D: PRISMA flowchart

Records identified through database searching (n = 1534)

Records after duplicates removed (n = 962)

Records screened (n = 962) → Records excluded (n = 901)

Full-text articles assessed for eligibility (n = 61)

Articles identified from citations and references (n = 0)

Studies included in narrative synthesis (n = 20)

Studies included in quantitative synthesis (n = 12)

Full-text articles excluded, with reasons:
- (n = 1 not meet quality assessment criteria)
- (n = 8 not assess ‘borderline’ and ‘attachment’ relationship)
- (n = 4 not include ‘borderline’ construct)
- (n = 5 not empirical research article)
- (n = 21 not include ‘attachment anxiety and avoidance’)
- (n = 2 no full text English language article)
Appendix E: Clinical Psychology and Psychotherapy instructions to authors

Clinical Psychology & Psychotherapy

© John Wiley & Sons Ltd

Edited By: Paul Emmelkamp and Mick Power

Impact Factor: 2.632

ISI Journal Citation Reports © Ranking: 2014: 29/119 (Psychology Clinical)

Online ISSN: 1099-0879

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Post Acceptance
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New Manuscript

- Non-LaTeX users. Upload your manuscript files. At this stage, further source files do not need to be uploaded.

- LaTeX users. For reviewing purposes you should upload a single .pdf that you have generated from your source files. You must use the File Designation "Main Document" from the dropdown box.

Revised Manuscript

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- LaTeX users. When submitting your revision you must still upload a single .pdf that you have generated from your revised source files. You must use the File Designation "Main Document" from the dropdown box. In addition you must upload your TeX source files. For all your source files you must use the File Designation "Supplemental Material not for review". Previous versions of uploaded documents must be deleted. If your manuscript is accepted for publication we will use the files you upload to typeset your article within a totally digital workflow.

MANUSCRIPT STYLE

The language of the journal is English. 12-point type in one of the standard fonts: Times, Helvetica, or Courier is preferred. It is not necessary to double-
line space your manuscript. Tables must be on separate pages after the reference list, and not be incorporated into the main text. Figures should be uploaded as separate figure files.

- During the submission process you must enter the full title, short title of up to 70 characters and names and affiliations of all authors. Give the full address, including email, telephone and fax, of the author who is to check the proofs.

- Include the name(s) of any sponsor(s) of the research contained in the paper, along with grant number(s).

- Enter an abstract of up to 250 words for all articles [except book reviews]. An abstract is a concise summary of the whole paper, not just the conclusions, and is understandable without reference to the rest of the paper. It should contain no citation to other published work.

- All articles should include a Key Practitioner Message — 3-5 bullet points summarizing the relevance of the article to practice.

- Include up to six keywords that describe your paper for indexing purposes.

Types of Articles

- **Research Articles**: Substantial articles making a significant theoretical or empirical contribution.

- **Reviews**: Articles providing comprehensive reviews or meta-analyses with an emphasis on clinically relevant studies.

- **Assessments**: Articles reporting useful information and data about new or existing measures.

- **Practitioner Reports**: Shorter articles (a maximum of 1200 words) that typically contain interesting clinical material. These should use (validated) quantitative measures and add substantially to the literature (i.e. be innovative).

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**Illustrations.** Upload each figure as a separate file in either .tiff or .eps format, the figure number and the top of the figure indicated. Compound figures e.g. 1a, b, c should be uploaded as one figure. Grey shading and tints are not acceptable. Lettering must be of a reasonable size that would still be clearly legible upon reduction, and consistent within each figure and set of figures. Where a key to symbols is required, please include this in the
artwork itself, not in the figure legend. All illustrations must be supplied at the correct resolution:

- Black and white and colour photos - 300 dpi
- Graphs, drawings, etc - 800 dpi preferred; 600 dpi minimum
- Combinations of photos and drawings (black and white and colour) - 500 dpi

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The APA system of citing sources indicates the author’s last name and the date, in parentheses, within the text of the paper. Cite as follows:

1. **A typical citation of an entire work consists of the author’s name and the year of publication**.
   Example: Charlotte and Emily Bronte were polar opposites, not only in their personalities but in their sources of inspiration for writing (Taylor, 1990). Use the last name only in both first and subsequent citations, except when there is more than one author with the same last name. In that case, use the last name and the first initial.

2. **If the author is named in the text, only the year is cited**.
   Example: According to Irene Taylor (1990), the personalities of Charlotte.

3. **If both the name of the author and the date are used in the text, parenthetical reference is not necessary**.
   Example: In a 1989 article, Gould explains Darwin's most successful.

4. **Specific citations of pages or chapters follow the year**.
   Example: Emily Bronte "expressed increasing hostility for the world of human relationships, whether sexual or social" (Taylor, 1988, p. 11).

5. **When the reference is to a work by two authors, cite both names each time the reference appears**.
   Example: Sexual-selection theory often has been used to explore patterns of various insect matings (Alcock & Thornhill, 1983) . . . Alcock and Thornhill (1983) also demonstrate. . .

6. **When the reference is to a work by three to five authors, cite all the authors the first time the reference appears. In a subsequent**
reference, use the first author’s last name followed by *et al*. (meaning “and others”). Example: Patterns of byzantine intrigue have long plagued the internal politics of community college administration in Texas (Douglas *et al.*, 1997) When the reference is to a work by six or more authors, use only the first author’s name followed by *et al.* in the first and all subsequent references. The only exceptions to this rule are when some confusion might result because of similar names or the same author being cited. In that case, cite enough authors so that the distinction is clear.

7. **When the reference is to a work by a corporate author, use the name of the organization as the author.** Example: Retired officers retain access to all of the university’s educational and recreational facilities (Columbia University, 1987, p. 54).

8. **Personal letters, telephone calls, and other material that cannot be retrieved are not listed in References but are cited in the text.** Example: Jesse Moore (telephone conversation, April 17, 1989) confirmed that the ideas. . .

9. **Parenthetical references may mention more than one work, particularly when ideas have been summarized after drawing from several sources. Multiple citations should be arranged as follows.** Examples:
   - List two or more works by the same author in order of the date of publication: (Gould, 1987, 1989)
   - Differentiate works by the same author and with the same publication date by adding an identifying letter to each date: (Bloom, 1987a, 1987b)
   - List works by different authors in alphabetical order by last name, and use semicolons to separate the references: (Gould, 1989; Smith, 1983; Tutwiler, 1989).

**Reference List**
All references must be complete and accurate. Where possible the DOI for the reference should be included at the end of the reference. Online citations should include date of access. If necessary, cite unpublished or personal work in the text but do not include it in the reference list. References should be listed in the following style:

1. **Journal Article**
2. **Book**

3. **Book with More than One Author**
The abbreviation *et al.* is not used in the reference list, regardless of the number of authors, although it can be used in the text citation of material with three to five authors (after the initial citation, when all are listed) and in all parenthetical citations of material with six or more authors.

4. **Web Document on University Program or Department Web Site**
Degelman, D., & Harris, M. L. (2000). *APA style essentials*. Retrieved May 18, 2000, from Vanguard University, Department of Psychology Website:
http://www.vanguard.edu/faculty/ddegelman/index.cfm?doc_id=796

5. **Stand-alone Web Document (no date)**
http://www.psywww.com/psyrelig/psyrelpr.htm

6. **Journal Article from Database**
http://www.psywww.com/psyrelig/psyrelpr.htm

7. **Abstract from Secondary Database**
http://www.psywww.com/psyrelig/psyrelpr.htm

8. **Article or Chapter in an Edited Book**
http://www.psywww.com/psyrelig/psyrelpr.htm

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Appendix F: Psychosis Attachment Measure

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 other key people in your life, please use a tick to show how much each statement is like you. Key people could include family members, friends, partner or mental health workers.

There are no right or wrong answers.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>A little</th>
<th>Quite a bit</th>
<th>Very much</th>
</tr>
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<tbody>
<tr>
<td>1. I prefer not to let other people know my ‘true’ thoughts and feelings.</td>
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<tr>
<td>2. I find it easy to depend on other people for support with problems or</td>
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<tr>
<td>difficult situations.</td>
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<td>3. I tend to get upset, anxious or angry if other people are not there</td>
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<tr>
<td>when I need them.</td>
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<tr>
<td>4. I usually discuss my problems and concerns with other people.</td>
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<td>5. I worry that key people in my life won’t be around in the future.</td>
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<tr>
<td>6. I ask other people to reassure me that they care about me.</td>
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<td>7. If other people disapprove of something I do, I get very upset.</td>
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<tr>
<td>8. I find it difficult to accept help from other people when I have</td>
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<tr>
<td>problems or difficulties.</td>
<td></td>
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</tr>
<tr>
<td>Question</td>
<td>Not at all</td>
<td>A little</td>
<td>Quite a bit</td>
<td>Very much</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>9. It helps to turn to other people when I’m stressed.</td>
<td></td>
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<tr>
<td>10. I worry that if other people get to know me better, they won’t like me.</td>
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<tr>
<td>11. When I’m feeling stressed, I prefer being on my own to being in the company of other people.</td>
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</tr>
<tr>
<td>12. I worry a lot about my relationships with other people.</td>
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<tr>
<td>13. I try to cope with stressful situations on my own.</td>
<td></td>
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<tr>
<td>14. I worry that if I displease other people, they won’t want to know me anymore.</td>
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<tr>
<td>15. I worry about having to cope with problems and difficult situations on my own.</td>
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<tr>
<td>16. I feel uncomfortable when other people want to get to know me better.</td>
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</tr>
</tbody>
</table>
## Appendix G: Abbreviated Maslach Burnout Inventory

### Work: Self-Report Measure

How often do the following describe the way you feel about working as a mental health professional?

<table>
<thead>
<tr>
<th></th>
<th>Every day</th>
<th>A few times a week</th>
<th>Once a week</th>
<th>A few times a month</th>
<th>Once a month or less</th>
<th>A few times a year</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I deal very effectively with the problems of service users.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2.</td>
<td>I feel I treat some service users as if they were impersonal objects.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
<td>I feel emotionally drained from my work.</td>
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<td></td>
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<td></td>
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<tr>
<td>4.</td>
<td>I feel fatigued when I get up in the morning and have to face another day on the job.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>5.</td>
<td>I’ve become more callous towards people since I took this job.</td>
<td></td>
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<tr>
<td>6.</td>
<td>I feel I’m positively influencing other people’s lives through my work.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Working with people all day is really a strain for me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I don’t really care what happens to some service users.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I feel exhilarated after working closely with service users.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I think of giving up mental health for another career.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I reflect on the satisfaction I get from being a mental health professional.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>I regret my decision to have become a mental health professional.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Dean of Faculty of Health and Life Sciences  
Professor Guy Daly  
Coventry University  
Priory Street  
Coventry CV1 5FB  
Tel 024 7717 5805

Head of Department of Psychology  
Professor James Tresilian BSc PhD  
University of Warwick  
Coventry CV4 7AL  
Tel 024 7657 3099

www.coventry.ac.uk

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Appendix H: Vignette

Vignette

Background

Carly is a 27 year old woman who has received support from the Community Mental Health Team for the last 5 years and whom you are the assigned Care Coordinator for. Carly has received support from the Community Mental Health Team for the last 5 years and you are aware that in her adolescence she had been under the Child and Adolescent Mental Health Service who had provided treatment for disorders of mood and eating. Carly’s family also had input from Children’s Social Care who had concerns about emotional neglect and abuse within the home. Carly has spoken about caring for her younger siblings when her parents were too drunk and the perceived lack of gratitude for this. She has stated that her parents were clear she was the least preferred child and would tell her that the difficulties they were experiencing with their mental health and substance misuse was due to the strain having her had put on their lives.

At your appointments with her, Carly sometimes describes feeling “empty inside” or “dead inside”. Her emotional state is prone to changing dramatically over a number of hours, ranging from high points where she focuses on her future and makes plans for her life to periods where she describes herself as feeling “depressed” and other periods where she presents as agitated and frustrated. She describes a “demon me” and an “angel me”. Her emotional state can also be related to some of the behaviour she exhibits. For most of her adult life Carly has misused substances. For a long period of time this was alcohol, and when intoxicated, she regularly exhibited anti-social behaviour or became involved in criminal activity, on one occasion assaulting a barman who refused to serve her a drink. She has since sought help for her alcohol use and succeeded in reducing this but she later replaced alcohol with codeine, and more lately has been using aerosols.

At times where she has felt low and described feeling empty or dead inside she has reported a desire to die. She has had numerous episodes of self-injurious actions and other times where she has threatened serious self-injury but later disclosed that she has not gone ahead with this. Most often this has been cutting behaviour. Usually this has not been life threatening but on a number of instances she has had to attend A&E by ambulance.

Carly has had a number of romantic relationships. She describes hating her past partners. Many of these relationships have involved domestic violence. Carly reports that she uses sex in relationships to keep her partners happy and describes feeling “that is all men want”. When she first met her current partner she described being “madly in love” however as the relationship progressed she has become suspicious he is cheating on her. Recently, she has become more agitated, misusing aerosols to a greater degree and also having a one-night-stand with a friend, which she has then informed her partner of. In terms of friendships Carly has not appeared to have longstanding friendships. She previously had friends who she would get drunk with, however when she felt those friendships had become unhelpful, she became closer to friends from church. More recently she has described the church-based friendships as fading and has begun talking about wanting to meet new people and wishing that she had “real” friends.

Dean of Faculty of Health and Life Sciences
Professor Guy Daly Coventry University Priory Street Coventry CV1 5FB Tel 024 7659 5955

Head of Department of Psychology
Professor James Treanor BSc PhD University of Warwick Coventry CV4 7AL Tel 024 7657 3009

www.coventry.ac.uk
Current time

It's a busy day at work, and you have a full diary. You receive a telephone call from Carly, who explains that her partner has said he is going to leave her. She said she has sent a text to her partner telling him that if he leaves her then she doesn't see the point in life anymore. When you ask for clarification she explains that she feels like she is in hell. On asking whether she has any plans to harm herself Carly responds by saying "why do you care?" Carly describes wanting to be free of her "hell" and says that she just needs a "release". On further enquiry, Carly does not provide you with a clear response regarding whether or not she actually intends to harm herself.

Response

In this position, with the information provided, which option best represents how you would respond? (Please ensure you only select one response)

<table>
<thead>
<tr>
<th>Choices</th>
<th>Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone the GP for advice.</td>
<td></td>
</tr>
<tr>
<td>Explain that you have a number of other commitments but will call back later.</td>
<td></td>
</tr>
<tr>
<td>Listen to the concerns and provide reassurance.</td>
<td></td>
</tr>
<tr>
<td>Listen to the concerns, provide reassurance and offer to visit her today/now.</td>
<td></td>
</tr>
<tr>
<td>Phone the family to inform them of the current situation.</td>
<td></td>
</tr>
<tr>
<td>Listen to the concerns, provide reassurance and offer to visit her later in the week.</td>
<td></td>
</tr>
<tr>
<td>Request a Mental Health Act Assessment is conducted via appropriate channels.</td>
<td></td>
</tr>
<tr>
<td>Contact the police for immediate assistance to ascertain her safety.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix I: Certificate of ethical approval

Certificate of Ethical Approval

Applicant:
Greg Stocks

Project Title:
Burnout and mental health staff management of crisis for a patient with a diagnosis of Borderline Personality Disorder: the mediating role of staff attachment.

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Medium Risk.

Date of approval:
15 July 2015

Project Reference Number:
P28472
Appendix J: Research and Development approval, 2gether NHS Foundation Trust

Gloucestershire Hospitals
NHS Foundation Trust
% Gloucestershire Research Support Service
Leaden House
Gloucestershire Royal Hospital
Great Western Road
Gloucester
GL1 3NN
Telephone: 0300 4225463
Facsimile: 0300 4225459
Email: mark.walker@giou.nhs.uk

Our R&D ref: 15/005/2gt

Monday, 23 March 2015

Dr Greg Stocks
Trainee Clinical Psychologist
Department of Clinical Psychology
James Stanley Building
Priory Street
Universities of Coventry and Warwick
Coventry and Warwick NHS Partnership Trust
Coventry
CV1 5FB

Dear Dr Stocks

Study title: Burnout and Mental Health Staff Management of Crisis for a patient with a diagnosis of Borderline Personality Disorder: The Mediating Role of Staff Attachment
IRAS Ref: 171334

Thank you for forwarding information on the above study. I can confirm the approval of 2gether NHS Foundation Trust for the above study to proceed.

Where an NHS Organisation’s role in the study involves the recruitment of participants to Clinical Research it is the responsibility of the Sponsor to ensure before the start of the study that site initiation is provided. Potential Research Participants should not be approached until site initiation has been provided and the ‘green light’ has been given by the Sponsor.

Your project will now be added to the Gloucestershire Health Community Research Register which will identify the following:

- Study Title: As above
- Chief Investigator: As above
- Sponsoring Organisation: Coventry University
- Host Organisation: 2gether NHS Foundation Trust
- Type of Study: Qualitative/Quantitative

Chair: Professor Ciar Chilvers DSc
Chief Executive: Dr Frank Harnett PhD, MBA
www.gloshospital.nhs.uk
It is important that all research conducted with NHS patients and/or staff complies with the Research Governance Framework. We would advise you to notify us at the above address, quoting our reference number for your study with regards to the following information.

- Protocol Changes/Amendments to the study
- Change of Principal Investigator/local Research Team at site
- Untimely closure of study
- Final study closure date
- Final recruitment figure of study

In relation to this I would like to take the opportunity to remind you of some of your responsibilities under this framework.

1. Health and safety: You are reminded of your responsibilities for health and safety at work under the Health and Safety at Work Act 1974. You have a legal responsibility to take care of your own and other people’s Health and Safety at work under the Health and Safety at Work ACT 1974 as amended and associated legislation. These include the duty to take reasonable care to avoid injury to yourself and to others by your work activities or omissions, and to co-operate with your employer in the discharge of its statutory duties. You must adhere strictly to the policies and procedures on health and safety.

2. Codes of confidentiality/Data Protection: Anybody who records patient information (whether on paper or by electronic means) has a responsibility to take care to ensure that the data recorded is accurate, timely and as complete as possible. It is vital that you conduct your research in accordance with the principles of the Data Protection Act 1998 and codes of confidentiality.

3. Liability and Indemnity: Indemnity for your study will be as described in any applicable Clinical Trial Agreement or other Research Contract. Where such an agreement is not available, the Trust will indemnify its employees and researchers holding NHS Honorary Contracts for the purposes of Negligent Harm. NHS Trusts cannot provide cover for No Fault or Non-Negligent claims. Where this is required, it is expected that the Research Sponsor will provide such indemnity.

4. Intellectual Property: Intellectual Property is defined as the tangible output of any intellectual activity that is new or previously undescribed. It can include the following:
   
   i. Inventions, such as new medical devices, software;
   ii. Literary works, such as software, patient leaflets, journal articles;
   iii. Designs and drawings, such as posters, leaflets;
   iv. Brand names, such as logos and trademarks; and
   v. Trade secrets, such as surgical techniques.

   For projects originating from outside of the NHS Trust with which this agreement is made, Intellectual Property rights will remain with the Lead Site/Investigator unless developed from observations made outside of the scope and influence of the project. The rights to Intellectual Property generated in such a fashion will remain with the Host Trust unless an agreement to the contrary has been signed by both parties. Where a Clinical Trial Agreement or other Contract exists, this will take priority over this clause.

5. Adverse Events/Incidents: Any adverse events you witness or suspect to have happened must be reported to your supervisor or manager as soon as you know about them and dealt with as described in the research protocol.
6. Fraud and Misconduct: Any suspicions of active fraud or misconduct must be reported to your supervisor or manager immediately and will be treated in the strictest confidence. The monitoring of research will also seek to reduce incidents of research misconduct and fraud.

7. Monitoring: As part of the Research Governance Framework, during the course of your research you may be monitored to ensure that procedures in the protocol approved by the ethics committee are being adhered to. For locally sponsored studies this will be undertaken by the R&D Office. For externally sponsored studies this is likely to be arranged by the appropriate sponsor.

8. Dissemination: The Framework also requires the dissemination of research findings to the research subjects, NHS staff and the public. On completion of your research you will be expected to produce a summary of the project and an indication of how the results from the study will be disseminated. For studies where publication of research results is not the responsibility of the local investigator, requests for such information will be made to the sponsor.

9. Termination of Agreement: The Trust also reserve the right to terminate the agreement for your research to proceed if, at any time, you are found to be in breach of the clauses in this Approval Letter or fail to adequately meet the requirements of the Research Governance Framework.

If you need any further support or information, please do not hesitate to contact us at the above address, quoting our reference number for your study.

I wish you every success with your project.

Yours sincerely,

Mark Walker
Senior Research Governance Manager
(Gloucestershire R&D Consortium)
Appendix K: Research and Development approval, Black Country Partnership NHS Foundation Trust

Maple Room
The Beeches
Penn Hospital Site
Penn Road
Wolverhampton
WV4 5HN

Tel 01902 444323
Fax: 01902 446079

Mr Greg Stocks
Trainee Clinical Psychologist
Universities of Coventry and Warwick

17 August 2015
Dear Greg

Name of project - Clinician attachment, burnout and perceived clinical action

I am writing to inform you that the Black Country Partnership NHS Foundation Trust’s Research and Innovation Committee have approved your study and hereby give local R&D approval for your research to begin, on the basis of your research application and proposal approved by Coventry and Warwick University.

May I remind you that if you should deviate from the protocol reviewed by the R&I committee, then local approval for this study will be withdrawn? Permission to conduct research is also conditional on the research being conducted in accordance with the Department of Health’s Research Governance Framework for Health and Social Care.

I would like to wish you every success with your research and look forward to receiving a copy of your completed report in the future.

Yours sincerely

Joanne Tomkins, Research & Innovation Manager
On behalf of
Dr Stephen Edwards
Medical Director for BCPFT

Chairman: Joanne Newton  Chief Executive: Mike K E Dowman
Appendix L: Research and Development approval, Coventry and Warwickshire Partnership NHS Trust

Coventry and Warwickshire Partnership Trust

NIHR Clinical Research Network: West Midlands
Unit 27
Business Innovation Centre
Binley Business Park
Harry Weston Road
Coventry
CV3 2TX

19 October 2015

Greg Stocks
Coventry & Warwickshire Partnership NHS Trust
Psychology Department
St Michael’s Hospital
St Michael’s Road
Warwick
CV34 5QW

Dear Mr Stocks

Project Title: Clinician attachment, burnout, and perceived clinical action v1
R&D Ref: CWPT130815

I am pleased to inform you that the R&D review of the above project is complete, and NHS permission has been granted for the study at Coventry and Warwickshire Partnership NHS Trust. The details of your study have now been entered onto the Trust’s database.

The permission has been granted on the basis described in the application form, protocol and supporting documentation. The documents reviewed were:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coventry University Certificate of Ethical Approval</td>
<td>P28472</td>
<td>15 July 2015</td>
</tr>
<tr>
<td>R&amp;D Form</td>
<td>171334/859212/14/61</td>
<td></td>
</tr>
<tr>
<td>SSI Form</td>
<td>171334/8595386/773/291635/333298</td>
<td></td>
</tr>
<tr>
<td>Protocol</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Participant Information Sheet</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Consent Form</td>
<td>1</td>
<td>15 November 2014</td>
</tr>
<tr>
<td>Questionnaires</td>
<td>1</td>
<td>15 November 2015</td>
</tr>
<tr>
<td>Informed Consent (Booklet)</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

All research must be managed in accordance with the requirements of the Department of Health’s Research Governance Framework (RGF), to ICH-GCP standards (if applicable) and to NHS Trust policies and procedures. Permission is only granted for the activities agreed by the relevant authorities.

All amendments (including changes to the local research team and status of the project) need to be submitted to the REC and the R&D office in accordance with the guidance in IRAS. Any urgent safety measures required to protect research participants against immediate harm can be implemented immediately. You should notify the R&D Office within the same time frame as any other regulatory bodies.
It is your responsibility to keep the R&D Office and Sponsor informed of all Serious Adverse Events. All SAEs must be reported within the timeframes detailed within ICH-GCP statutory instruments and EU directives.

In order to ensure that research is carried out to the highest governance standards, the Trust employs the services of an external monitoring organisation to provide assurance. Your study may be randomly selected for audit at any time, and you must co-operate with the auditors. Action may be taken to suspend Trust approval if the research is not run in accordance with RGF or ICH-GCP standards, or following recommendations from the auditors.

I wish you well with your project. Please do not hesitate to contact me should you need any guidance or assistance.

Yours sincerely,

Elizabeth Vassell
Research Support Facilitator

Copy to: Dr Tom Patterson, University of Worcester
Professor Ian Marshall, Coventry University
Toni Ruck, Head of Community Services SCMH
Appendix M: Research and Development approval, Dudley and Walsall Mental Health Partnership NHS Trust

<table>
<thead>
<tr>
<th>Date of presentation</th>
<th>13/04/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of presentation</td>
<td>11.45</td>
</tr>
<tr>
<td>Title of study</td>
<td>Burnout and mental health staff management of crisis for a patient with a diagnosis of Borderline Personality Disorder: the mediating role of staff attachment.</td>
</tr>
<tr>
<td>Presented By</td>
<td>Greg Stocks</td>
</tr>
<tr>
<td>Type of study</td>
<td>Own account</td>
</tr>
</tbody>
</table>

Please give enough detail so that the Committee has enough information on which to base a decision to approve the study.

What is the purpose of this research?

The focus of the research is looking at the potential relationship between care coordination staff burnout, their attachment dimensions and the impact these factors have on their response to a clinical decision making task. The decision making task comprises a vignette of a client in crisis (representing a presentation which would fit the diagnostic category of ‘Borderline Personality Disorder’). Participants are asked to pick from a list of response choices. Burnout is measured with an abbreviated questionnaire and attachment dimensions with a questionnaire. In total, including the consent and debrief process it is expected to take participants 20 minutes and is completed via an online system, allowing participation at a time appropriate for the individual. I have realised some of the variables in this research are sensitive and as such I have taken appropriate precautions both to protect participants and protect the research from any bias.

Participants will be CPNs, Social Workers or Occupational Therapists working as care coordinators in secondary care mental health teams (having worked with clients with personality disorder diagnoses at some point).

Overall, the proposed research aims to consider the utility of attachment theory and burnout for understanding differences among staff in the caregiving to BPD patients in crisis. Further
Dudley and Walsall

Mental Health Partnership NHS Trust

| Presented for | Approval x | information ○ |
| Presented for | feedback ○ | other (specify) ○ |

Committee Decision | Approved

Information sheet for research presentations to R&D Committee
Appendix N: Research and Development approval, Northamptonshire Healthcare NHS Foundation Trust

Northamptonshire Healthcare NHS Foundation Trust

Research and Development
Carey Block
ST Mary's Hospital Kettering,
Northamptonshire
NN15 6XR

Direct Dial: (01536) 452303

Medical Director: Dr Alex O’Neill-Kerr
Head of R&D: Sue Palmer-Hill
Interim R&D Manager: Leanne Holman

19th August 2015

Greg Stocks
Universities of Coventry and Warwick

Dear Mr Stocks

I am pleased to confirm that with effect from the date of this letter, the above study now has Trust Research & Development permission. You can now commence your research activities in Northamptonshire Healthcare NHS Foundation Trust in accordance to the agreed protocol and the Research Governance Framework.

<table>
<thead>
<tr>
<th>Title</th>
<th>Burnout and mental health staff management of crisis for a patient with a diagnosis of Borderline Personality Disorder: the mediating role of staff attachment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHFT Ref:</td>
<td>R123</td>
</tr>
<tr>
<td>Start date</td>
<td>19th August 2015</td>
</tr>
<tr>
<td>End date:</td>
<td>5th September 2016</td>
</tr>
</tbody>
</table>

As part of our monitoring requirements you are required to submit a six months progress report to the R&D Office and to the Research Ethics Committee from the start date. We ask you for a summary report of your study findings upon completion of your research as we would like to disseminate in within the Trust.

If you have any questions regarding this, or other research you wish to undertake in the Trust, please contact this office. We wish you every success with your research.

Please be aware that any changes after approval may constitute an amendment. The process of approval for amendments should be followed. Failure to do so may invalidate the approval of the study at this trust.

Yours sincerely

Leanne Holman
Research and Development Manager
Mental health staff and their experience of a service user

Information Sheet

Overview
This research focuses on your experiences of working with clients in crisis.

Why have I been chosen?
The research is specifically concerned with staff who spend most time with clients and as such professionals taking a care coordination role with clients with interpersonal difficulties have been selected as potential participants. It was envisaged that this would primarily include CPNs, Social Workers and Occupational Therapists. If this is not your core profession, or you are still unsure about whether this may have been sent in error please do not hesitate to contact me (contact details at bottom of the page).

Do I have to take part?
No. There is no requirement from your employer or anybody else that you take part. Participation is on a completely voluntary basis. You may find that during completing the task you change your mind, and this is completely fine and it is your right to withdraw during completing the task.

What will it involve?
Participation will involve a commitment of around 15 minutes. It involves completing two questionnaires, one about your experiences of work and the other about your experiences of relationships, and reading and responding to a clinical vignette.
What are the risks and benefits?

No major risks have been identified. While the information presented in the vignette may appear emotive it is expected that this would be to a level equal with your normal practice. While no direct reimbursement is offered for participation you will receive, if you wish, details of the outcome of the research as a whole which you may find interesting or useful. Furthermore, it is hoped the research will contribute to a body of literature hoping to provide insight into how best care can be provided for clients in acute distress.

What will happen to my data?

The information you provide will be anonymised, as such you will not be identifiable. This information will not be linked to you as an individual and it will be stored securely, electronically on an encrypted drive. Should you wish to withdraw your data at any point during completing the task you can do this by closing your browsing page. However, due to the anonymous nature of the study once you submit your data at the end of completing the task it will not be possible to withdraw it.

Who has reviewed this study?

Ethical approval for the present study has been granted by Coventry University. The study has also received approval from your employing NHS Trust (though they will not have direct access to any data you may provide).

Contact details

Should you have any further questions, prior, during or after completing the task please do not hesitate to contact me, my details are:

Name: Greg Stocks,   Email: stocks@coventry.ac.uk

Should you wish to make a comment or complaint about this research please direct your correspondence to one of my research supervisors, who have oversight of the project.

Name: Dr Tom Patterson,   Email: a56654@coventry.ac.uk
Name: Dr Ian Hume,   Email: hux264@coventry.ac.uk
Appendix P: Informed consent form

Informed Consent Form

Research title: Mental health staff and their experiences and reactions to working with challenging clients
Brief summary: This research focuses on your experiences of your workplace and relationships as well as considering your experiences with clients in crisis. It will take around 15 minutes to complete. Please refer to the Information Sheet for further information.

Please tick

1. I confirm that I have read and understood the participant information sheet for the above study and have been provided with the opportunity to ask questions about the study.

2. I understand that my participation is voluntary and that I am free to withdraw at any time prior to completing the questionnaires without giving a reason

3. I understand that all the information I provide will be treated in confidence

4. I agree to take part in the research project

Date: ........................................................................................................................................

Name of Researcher: Greg Stocks

---

Dean of Faculty of Health and Life Sciences
Professor Guy Daley Coventry University Priory Street Coventry CV1 5FB Tel 024 7769 5805
Head of Department of Psychology
Professor James Tresilian BSc, PhD University of Warwick Coventry CV4 7AL Tel 024 7657 3009

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Appendix Q: Demographic data collection form

1. What is your age?

_____ years

2. What is your sex? (delete as appropriate)

Female / Male

3. What is your core profession?

<table>
<thead>
<tr>
<th>Profession</th>
<th>Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Mental Health Nurse</td>
<td></td>
</tr>
<tr>
<td>Social Worker</td>
<td></td>
</tr>
<tr>
<td>Occupational Therapist</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix R: Debrief sheet

Debrief

Thank you for taking your time to complete the questionnaires!

This research is investigating the way professionals experience relationships, how burnt out they feel at work and any impact on the way they respond to clients in acute distress. The research intends to investigate whether there is a relationship between these factors and, if so, what this looks like. On reflection of any findings, the impact for professionals and employers will be considered. Suggestions will be made on any appropriate changes to support best practice and staff wellbeing. It is hoped that the findings can be disseminated in an academic journal.

If you wish to be provided with a summary of the outcome of this research please provide your email address as a contact detail by emailing me the address (details below). This email address will not be linked to the data you have provided, that was completely anonymous. Should you have any further questions please do not hesitate to contact me by email:

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Appendix S: Reflective Practice: International and Multidisciplinary Perspectives instructions to authors

Reflective Practice
International and Multidisciplinary Perspectives

ISSN
1462-3943 (Print), 1470-1103 (Online)

Publication Frequency
6 issues per year

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**Manuscript submission**

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**Manuscript preparation**

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Last updated 26/09/2014
Appendix T: Meta-analytic procedures

1. Pearson's $r$ effect size collated for each study

2. Where $r$ was not reported it was estimated from $t$ statistics (using Microsoft Excel software):

$$ r = \sqrt{\frac{t^2}{t^2 + df}} $$

3. Each $r$ statistic was converted to Fisher's $r$ to create a normal distribution (using Microsoft Excel software):

$$ Z_r = \frac{1}{2} \ln \frac{1 + r}{1 - r} $$

4. The mean Fisher's $r$ was calculated.

5. The mean Fisher's $r$ converted back into $r$ by computing the Fisher inversion (using Microsoft Excel software):

$$ r = \frac{e^{2Z_r} - 1}{e^{2Z_r} + 1} $$

6. A standard $z$ score (Stouffer $z$) was calculated for each effect size (using Microsoft Excel software):

$$ z = r \sqrt{N} $$

7. Mean Stouffer $z$ was calculate (using Microsoft Excel software):

$$ \text{Stouffer } Z = \frac{\sum z}{\sqrt{N}} $$

8. Stouffer $z$ was converted to a level of significance ($p$) using an online calculator.

9. Chi-square was computed comparing individual $z$ scores with the mean $z$ score to test the homogeneity of effect sizes.