Exploring Attachment in Adults with Intellectual Disability

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July 2020

Submitted in partial fulfilment of the Doctorate in Clinical Psychology at the Division of Clinical Psychology, School of Psychology, University of Liverpool.

Acknowledgements

I would like to thank the services who supported recruitment, and the individuals who participated. When the demands felt challenging, the enthusiasm and dedication they showed to the project reinforced its rationale and served as a constant motivator.

I would also like to thank my research supervisors Dr Leonardo De Pascalis and Dr Andrea Flood, whose guidance, support and input has been invaluable. My sincere thanks also go to Dr Deanna Gallichan and Carol George, PhD, for sacrificing their time in order to code transcripts and provide a source of advice.

Finally, I would like to thank my family, friends, and partner for their unwavering love and support.

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Word Count

Thesis section	Main text (including tables and figures)	References	Total
Thesis Overview	496	69	565
Literature Review	10,280	1,948	12,228
Empirical Paper	9,642	2,514	12,156
Appendices	3,942	178	4,120
Total excluding references	**24,360**		

Thesis Overview

> *"The propensity to make strong emotional bonds to particular individuals [is] a basic component of human nature"* (Bowlby, 1988)

The core of Bowlby's influential attachment theory is captured in the above quote. Researched and applied in a great number of contexts over many years, its strength lies in its clear applicability to humans, and human experiences. People with Intellectual Disability (PWID) sadly continue to experience narratives and challenges in relation to 'humanness' (Budge & Wels, 2016), making the wide applicability of attachment theory to *all* human experience of even greater appeal in understanding PWID's experience of relationships. The theory has even greater potential merit when considering that PWID may experience additional losses, increased requirements for support, and cognitive and emotional deficits which may impact relationship formation (Sinason, 2016). Research into understanding attachment in PWID is a small but growing area. This thesis explores attachment in PWID, and aims to contribute to the area by way of considering the measures available for assessing attachment in the PWID population, and examining the role of attachment in relation to psychological health and interpersonal functioning in PWID.

Paper 1 is a systematic review of the literature on available methods of assessing attachment in PWID. In order to support the growing area of attachment and PWID, researchers and clinicians require knowledge of the assessment methods available. The review aims to establish, organise and appraise the available literature on assessment methods in terms of reliability, validity and clinical utility. Nine papers reporting eight assessment methods are reviewed. Assessment methods were limited in number and psychometric robustness in comparison to those available for use with the typically developing population. Future

research would benefit from focusing on establishing the reliability and validity of available measures.

Paper 2 is an empirical study examining prevalence of insecure and unresolved attachment in clinical and non-clinical groups of PWID. It also examines differences between resolved and unresolved attachment groups regarding psychological distress, emotional well-being and interpersonal functioning. Participants (*n* = 24) completed measures relating to the abovementioned variables, and differences between groups were analysed statistically. No participants were classified as securely attached. There was no difference between clinical and non-clinical groups with regards to distribution of resolved/unresolved classifications. There was no difference between individuals categorised as resolved/unresolved with regards to psychological distress, emotional well-being or interpersonal functioning. The lack of secure attachment in either group suggests potentially higher rates of insecure attachment in the PWID population than hypothesised; suggesting wider consideration of interpersonal environments for PWID may be warranted. Further research with a larger sample and more robust methodology is required.

A critical and personally reflective account of the research process is also included at the end of the thesis, in Appendix 19. It is hoped that this will provide additional context to the reader which could not be wholly captured in papers 1 and 2. It includes strengths and limitations of the research, and reflections on some of the challenges encountered during the research journey.

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Assessing Attachment in Adults with Intellectual Disability – A Systematic Review of Available Measures.

Prepared for submission to the Journal of Intellectual and Developmental Disabilities. [1]

[1] Author guidelines for the Journal of Intellectual and Developmental Disabilities are in Appendix 1. The word limit for this journal is 7000 words. The required style of referencing is the American Psychological Association (APA) 7th edition. The word count is exceeded, and tables and figures included in the main text, for examination purposes only.

Abstract

Background

Recent years have seen growing interest in applying attachment theory to understanding psychological distress in People with Intellectual Disability (PWID). In order to apply such theory, methods of assessing attachment in this population are required. This review aimed to establish and evaluate the available literature relating to attachment measures for use with adults with ID.

Method

PsycInfo, CINAHL, Web of Science and Medline were searched to identify relevant literature. Papers reporting the development/evaluation of an attachment measure, and papers reporting having measured attachment as part of a wider study were included. Data were synthesised narratively.

Results

Nine papers reporting eight assessment methods were reviewed. Four papers reported adapting a pre-existing method of attachment assessment, and five reported a method of assessment developed specifically for use with PWID. Reporting of psychometric properties and clinical utility of the measures varied between papers.

Conclusions

Attachment assessment methods for use with adults with ID are limited in number and psychometric robustness compared to the typically developing population. Future work should focus on establishing what constitutes attachment for PWID, and building an evidence base for measurement of such, particularly in relation to reliability and validity.

Keywords

Attachment, assessment, measurement, Intellectual Disability

Introduction

Attachment

Attachment theory describes the origins of interpersonal relationships, and can be traced to the works of John Bowlby (1969/1982) and Mary Ainsworth (Ainsworth & Wittig, 1969). Bowlby hypothesised that humans are born with an ‘attachment system’ comprising emotional and biological mechanisms, which drive infants to seek care from another in order to maximise their own chances of survival, and in turn, that of the species. This care seeking, termed ‘attachment behaviour’ is organised in a ‘behavioural system’ which facilitates closeness between children and their mothers at times of real or perceived threat (Bowlby, 1969/1982). Once proximity is achieved, the child feels safe, and as such the attachment behavioural system is deactivated (Bowlby, 1969/1982).

As children grow, relationships become unconsciously governed by ‘scripts’ or ‘internal working models’ (IWM; Bowlby, 1973). IWM contain information regarding who and how responsive one’s attachment figures are, and how acceptable one is to their attachment figures (Bowlby, 1973). Individuals with IWM that the self is accepted and valued, hold IWM of others as available and protective, where those with IWM that the self is unacceptable and devalued, hold IWM of others as unavailable and unresponsive (Bowlby, 1973).

Ainsworth (1963) proposed that mothers act as a ‘safe base’ for children to interact with their environment, and that children’s ability to do so depends on the relationship quality with the parent. Mothers who respond in a sensitive and timely manner to their child’s behaviour help the child learn they can depend on them, leading to development of a secure relationship (Ainsworth et al., 1978). Both Bowlby and Ainsworth emphasised the role of the primary caregiver in shaping individuals’ perceived experiences of relationships.

Children are hypothesised to develop automatic, unconscious behaviour strategies in response to the caregiving they receive (Main, 1990). Those who perceive others as available and responsive are hypothesised to flexibly and openly express emotion so that they can signal their needs to their caregiver (Cassidy, 1994), where those who perceive others as unavailable are hypothesised to minimise or heighten emotional expression (Cassidy, 1994). Such strategies are again theorised to be present in both current and future relationships (Shaver & Mikulincer, 2002).

Although attachment behaviours or ‘patterns’ are topographically different contingent on age and development, they are relatively stable over the life course (George & West, 1999). Research has demonstrated the influence of attachment on a range of outcomes including adult psychological functioning (Mikulincer & Shaver, 2007), stress levels (Maunder & Hunter, 2001), social functioning (Fransson, 2014) and physical illness (McWilliams & Bailey, 2010). Such findings have even greater consequence given that attachment has been argued to be distinct from other constructs related to health outcomes, such as neuroticism or help seeking (Ravitz et al., 2010). This, coupled with the range of outcomes it relates to, attests to the importance of having valid and reliable tools to measure attachment.

Measurement of Attachment

The first documented attachment assessment was the Strange Situation Procedure (SSP; Ainsworth et al., 1978). In the SSP, infants (aged 12-20 months) are separated from their mother, and exploration and interaction with the environment and caregivers are assessed. Infants’ responses are coded in to one of three attachment categories: secure, insecure-ambivalent and insecure-avoidant. Secure infants show distress on separation, but return to play and exploration on their mother’s return; indicating IWM of others as available and responsive. Insecure-ambivalent infants show reluctance to explore, protest on separation, and whilst seek contact on reunion, are not comforted by this and struggle to return to play. Finally, insecure-avoidant infants explore with little reference to their caregiver, may show distress on separation but often do not, and ignore their caregiver in preference for toys when they return. Such presentations indicate IWM of other as unavailable and unresponsive. A fourth category of ‘disorganised attachment’ was later added (Main & Solomon, 1986, 1990; Main & Hesse, 1990) to describe children who display behaviours such as freezing or disorientation. Although such children can display behaviour indicating organised (secure or insecure) attachment, their behaviour indicates a lack of clear goals, thought to stem from experiences of fear (e.g., through maltreatment) regarding their caregiver.

The above classifications are thought to differ from reactive attachment disorder (RAD); a presentation typified by difficulties in social relatedness prior to age five, hypothesised to stem from “grossly pathogenic care” (Minnis et al., 2006, p. 338). Where attachment concepts describe a relationship and capture the range of attachment strategies in the general population, RAD describes a set of behavioural difficulties located within the individual, and is a recognised clinical diagnosis (Minnis et al., 2006). RAD’s validity and utility as a diagnosis remains contested (Vervoort et al., 2013), and its description in the literature variable (O’Connor & Zeanah, 2003).

In sum and as exemplified by the SSP, attachment assessment in children tends to be observational in nature. Observations focus on either controlled (e.g., SSP) or more naturalistic settings (e.g., The Care Index for Infants in Crittenden’s [2005] Dynamic Maturational Model), and consider developmental skills (e.g., walking, talking, using objects) in the context of development of attachment behaviours. As children age, alternative methods such as the Attachment Q-Sort (AQS; Waters & Deane, 1985) and the story-telling method in the School-Age Assessment of Attachment (SAA; Crittenden & Landini, 1999) are available.

Methods of attachment assessment in adults differ in terms of which aspect of attachment theory they emphasise, and therefore, which aspect of relationship security they ‘tap’ into. This difference can be broadly categorised into either developmental or social psychology approaches and methods.

The developmental psychology approach to attachment emphasises how individuals’ early experiences are integrated into their discourse as an adult. Focus is on individuals’ ability to provide coherent narratives about their childhood experiences of care. Secure attachment is seen as an “interpersonal asset” (Roisman et al., 2007, p.680) which provides a basis for interaction in a range of interpersonal contexts, based on the mental representation held by the individual. The construct of attachment is viewed as distinct from personality, with research showing only small associations between it and variables such as narrative style and intelligence (Roisman et al., 2007).

The social psychology approach to attachment emphasises the appraisals individuals make about close relationships. Individuals’ conscious perceptions of their thoughts, feelings and behaviours in interpersonal situations, particularly those involving relational stress or threat (Roisman et al., 2007), are the focus of assessment. In contrast to the developmental approach, the social approach views attachment as a theory of personality development, and as such related to a broad range of constructs, most notably that of the ‘Big Five’ personality traits (Roisman et al., 2007).

Interview and/or observational methods tend to be informed by the developmental approach. One such example is the Adult Attachment Interview (AAI; George et al., 1984/1985/1996; Hesse, 2008). A semi-structured interview in nature, respondents are asked to recall past experiences of relationships. Responses are coded in relation to factors indicating attachment security, such as how coherently the events are recalled. The individual's 'state of mind' regarding attachment figures is then categorised as secure, dismissing (similar to the avoidant classification in the SSP), or preoccupied (similar to the ambivalent classification in the SSP), and a fourth criteria exists termed 'unresolved' with regards to past loss or trauma (similar to the disorganised classification in the SSP). Stemming from recognition of the time-intensive nature of the AAI, plus its limitations in measuring defensive processes (Webster & Joubert, 2011), the Adult Attachment Projective Picture System (AAP; George & West, 2001) is another example of a measure informed by the developmental approach. The AAP requires respondents to construct a narrative about picture stimuli depicting attachment-related scenes of loss and separation, and retains the AAI attachment groups and focus on attachment state of mind. A final example of a measure informed by the developmental approach is the Adult Attachment Q-sort (Kobak, 1993). Derived from the AAI scoring system, individuals sort a set of 100 descriptors relating to emotional expression, regulation and attachment. How an individual sorts the set is compared against a prototype sort, and a classification of secure, dismissing or preoccupied is assigned.

Self-report questionnaires tend to be informed by the social approach. Exemplified by the Relationships Questionnaire (Bartholomew & Horowitz, 1991), such measures require individuals to indicate which attachment category best reflects their experiences and behaviour in romantic relationships. Longer questionnaires (e.g., the Experience in Close Relationships [ECR], Brennan et al., 1998) are also available, in which individuals rate a number of items with regards to how true they are of their thoughts and feelings in romantic relationships. Scores can then be used to place the respondent into one of the four attachment categories. It has been argued that such measures cannot account for defensive processing that may affect respondents' answers (Ravitz et al., 2010). Further, they cannot 'activate' attachment phenomena, and therefore, do not permit consideration of those phenomena which could be manifest or displayed during an assessment (Ravitz et al., 2010).

Attachment and Intellectual Disability (ID)

ID is characterised by significant limitations in intellectual functioning and adaptive behaviour (American Association of Intellectual and Developmental Disabilities, 2020). A number of factors in the lives of people with ID (PWID) mean that the attachment system is more likely to be disrupted compared to those without ID. Early in life, parents may experience shock and sadness that their child has been diagnosed with a disability (Marshak & Seligman, 1993; Fletcher, 2004), and grief for the loss of the 'perfect' child they hoped for (Goldberg et al., 1995). These responses may impact parents' ability to react sensitively to their child (Fletcher, 2016). Indeed, studies have found differences in interactions between mothers of children with ID, and those without (Zyga & Dimitropoulos, 2020). Neurological and temperamental differences may also make it more difficult for parents to read and respond to attachment cues (Fletcher, 2016).

As described earlier, caregiver responsiveness can lead to development of unconscious behavioural strategies regarding emotion regulation (Cassidy, 1994). Given the additional factors that can impact attachment relationships for PWID (Fletcher, 2016), individuals may be more likely to perceive others as unavailable, and so be more likely to minimise or maximise emotional expression as a result (Fletcher, 2016). Indeed, prevalence of mental health difficulties in children with ID has rates of 36% compared with 8% of children without ID (Emerson & Hatton, 2007), with similar findings demonstrated in adults, where rates of between 28% and 40% have been reported (Cooper et al., 2007).

Whilst the above factors highlight the importance of considering attachment theory in relation to PWID, there are challenges to using the aforementioned assessment methods with this population. PWID may have difficulty reflecting on past experiences and analysing thoughts and feelings in relation to these. A tendency to acquiesce (Clare & Gudjonsson, 1995) further compromises the use of interview and paper-based assessment (Walker et al., 2016). Additionally, PWID often do not have the same opportunities to develop romantic relationships (Walker et al., 2016); meaning that the assumptions about adult life held by some measures may not apply. Further, it remains unclear whether the attachment patterns seen in the typically developing population are also seen in PWID, and whether level of ID influences topography (British Psychological Society [BPS], 2017).

Rationale

A systematic review of the literature on attachment theory and adults with ID was conducted by Mullen (2018). It searched two databases (PsycInfo and CINHAL) and identified five empirical studies. Mullen (2018) proposed that the paucity of research in the area owes to a lack of established attachment measures for use with PWID. Whilst the review provided a descriptive summary of the attachment measures identified in the five studies, there remains a gap in the literature relating to: (1) fully establishing the extent of available assessment methods as reported in empirical studies, (2) critically reviewing the available evidence for these assessments, and (3) considering the clinical utility of the available measures. Given the relevance of attachment theory to ID, identifying and organising the literature on attachment assessments would aid clinicians’ decision-making when selecting appropriate assessment tools from those available, as well as highlight areas for future research and development of the measures.

In keeping with the realist ontology informing Bowlby’s (1969/1982) theory, a positivist epistemology informs this review. Objective methods were therefore employed in order to source and analyse data.

Review Aim

Existing literature on methods of assessing attachment in adults with ID will be identified and organised. Given the scarcity of research in the field, a broader range of scientific databases than that searched by Mullen (2018) will be used. An evaluation of existing measures and their clinical utility will be provided. The results will contribute to the growing research and clinical interest in applying attachment theory to ID, and the wider literature on how best to support and improve the psychological well-being of this population.

Method

The review followed methodological guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Moher et al., 2009). The paper outlines a review of quantitative and qualitative evidence accumulated over five stages: (1) identification of the research question, (2) defining eligibility criteria, (3) selecting appropriate studies, (4) data charting, and (5) collating and reporting of results.

Search Strategy

A systematic search of research papers published in peer reviewed journals was conducted. Search terms were informed by discussions between the authors regarding the concepts subject to review, terms held in each databases thesaurus, and previous reviews in the areas of attachment, measures and ID. Hand searches of papers meeting eligibility criteria were also conducted to identify any additional studies. Each database was searched from its date of conception to February 2020 inclusive. Databases searched were PsycInfo, CINAHL, Web of Science and Medline. These were thought to together contain the broadest range of psychological and medical journals likely to be locations for publication of attachment and ID research. Table 1 shows the search term combinations used.

Key concept	**Search terms**
Attachment	“attachment”
AND	
Measurement	“measur*” OR “questionnaire” OR “scale” OR “checklist” OR “assess*” OR “interview”
AND	
Intellectual Disability	“learning disab*” OR “developmental disab*” OR “intellectual disab*” OR “mental retardation”

Table 1. Search Terms Applied Within the Databases

Eligibility Criteria

Studies reporting a method of assessing attachment in adults (aged 18 +) with ID were included for review. Studies reporting direct (e.g., interview) or indirect (e.g., observation) methods of assessment were eligible, as were studies reporting quantitative or qualitative properties of the assessment methods described. These criteria were selected to ensure identification of the maximum possible number of assessment methods, and therefore, included both: (1) papers reporting the development or evaluation of a measure of attachment, and (2) papers reporting having measured attachment as part of a wider study. Additional eligibility criteria included papers written in the English language and published in a peer-reviewed journal. Single case studies, theses, book chapters, review papers and manuals were ineligible, as were studies including children and those with Autism Spectrum Disorder or learning difficulties (e.g., dyslexia) who did not also have ID.

Study Selection

Titles and abstracts of all papers identified by the searches were screened by the first author, and those that were not relevant were excluded. This screening was also independently performed by a second researcher on 10% of the papers generated, with full agreement ($K = 1.0$). Following this, the full text of any potentially relevant paper was reviewed, and any reasons for exclusion documented. This eligibility process was applied and corroborated by the same colleague who aided with screening, again with full agreement ($K = 1.0$). This resulted in a list of papers for full review (see Figure 1).

Quality Assessment

Variability in the aims of the included studies, the inclusion of papers that measured attachment as part of a wider study, and the often preliminary nature of the studies identified precluded use of a quality assessment tool for studies on measurement properties (e.g., the COSMIN checklist; Mokkink et al., 2010). In line with the aims of the review, it was decided that studies would be best evaluated in terms of the available evidence for, and clinical utility of, the measure. To this end, an ‘evidence and clinical utility evaluation tool’ was developed. The ‘evidence and clinical utility evaluation tool’ combines indicators found in the Andresen characteristics for assessing the tools of disability outcomes research (Andresen, 2000; Appendix 3) and the Smart multi-dimensional model of clinical utility (Smart, 2006; Appendix 4). The tool was designed to generate an overall picture of the quality of the evidence for each measure, to support consideration of each measure’s clinical utility, and to facilitate narrative interpretation of the results. It includes information relating to: concept measurement, available evidence (including reliability and validity), respondent and administrative burden, accessibility/applicability of the measure to adults with ID, and materials and training required for administration. Items from Andresen (2000) and Smart (2006) were combined to form the tool, and only removed if not applicable or no evidence relating to that component was reported in the papers. A full list of the Andresen (2000) and Smart (2006) criteria are included in Appendix 5, alongside reasons for removal, where appropriate.

Data Extraction and Analysis

Publication details, study design, participant characteristics, methodology, the attachment concept measured, method of assessment, results/findings, and study limitations were extracted from included papers. This information is presented in Table 2, alongside a narrative interpretation.

Results

Identified Studies

Following removal of duplicates, the search strategy identified 487 unique records. Of these, 485 were identified through database searches, and two were identified through hand searching of reference lists. Screening excluded 470 papers, and a further eight were excluded at the eligibility stage. One paper (De Schipper & Schuengel, 2010) reported assessing attachment in young people, a sub-sample of which was aged over 18. The authors of this paper were contacted to request data for this sub-sample (see Appendix 6), however, they advised that the nature and size of this group (*n* = 4) would preclude statistical analysis. A decision was made to include the paper as it described an assessment method not otherwise reported. This resulted in nine papers being retained for review (Clegg & Landsall-Welfare, 1995; Smith & McCarthy, 1996; Clegg & Sheard, 2002; De Schipper & Schuengel, 2010; Minnis et al., 2010; Larson et al., 2011; Penketh et al., 2013; Gallichan & George, 2014, 2018). Figure 1 shows the process through paper identification, screening, eligibility and retention in line with the flow-of-information diagram by Moher et al. (2009).

Characteristics of Included Studies

Nine studies reporting eight methods of assessing attachment in adults with ID were included in the review. Table 2 depicts the characteristics of the nine studies. The studies were published between 1995 (Clegg & Landsall-Welfare, 1995) and 2018 (Gallichan & George, 2018). All were conducted in the United Kingdom, with the exception of one (De Schipper & Schuengel, 2010), conducted in the Netherlands. Settings for the studies included community teams for PWID, forensic services for PWID, colleges, day centres and inpatient and residential provisions. Three studies collected data directly from PWID, three collected data via a respondent asked questions about the person with ID, and three gathered data from PWID and respondents. The number of participants (aged 18 and over) in the studies was 273. Only one study that used respondents provided the number that took part and their demographic details (Penketh et al., 2013). The gender distribution of the four adult participants in DeSchipper and Schuengel’s (2010) study was not reported. In the remaining eight studies, 164 participants were male. Two studies did not report the age range of participants (Minnis et al., 2010; Larson et al., 2011). In those that did, ages ranged from 18-

63 years. Participants in the studies were reported to have ID ranging from mild to severe. Only one study reported having used a formal method of assessment in relation to level of ID (Penketh et al., 2013). There were two papers that reported case studies (Clegg & Landsall-Welfare, 1995; Gallichan & George, 2014), four that used a cross-sectional design (Smith & McCarthy, 1996; DeSchipper & Schuengel, 2010; Minnis et al., 2010; Larson et al., 2011), two that used a repeated measures design (Penketh et al., 2013; Gallichan & George, 2018), and one was a retrospective study (Clegg & Sheard, 2002). Four studies described using a pre-existing method of attachment assessment with varying degrees of adaptation for PWID (Minnis et al., 2010; Larson et al., 2011; Gallichan & George, 2014, 2018), and five studies described a method of assessment developed specifically for use with PWID (Smith & McCarthy, 1996; Penketh et al., 2013; Clegg & Landsall-Welfare, 1995; Clegg & Sheard, 2002; DeSchipper & Schuengel, 2010).

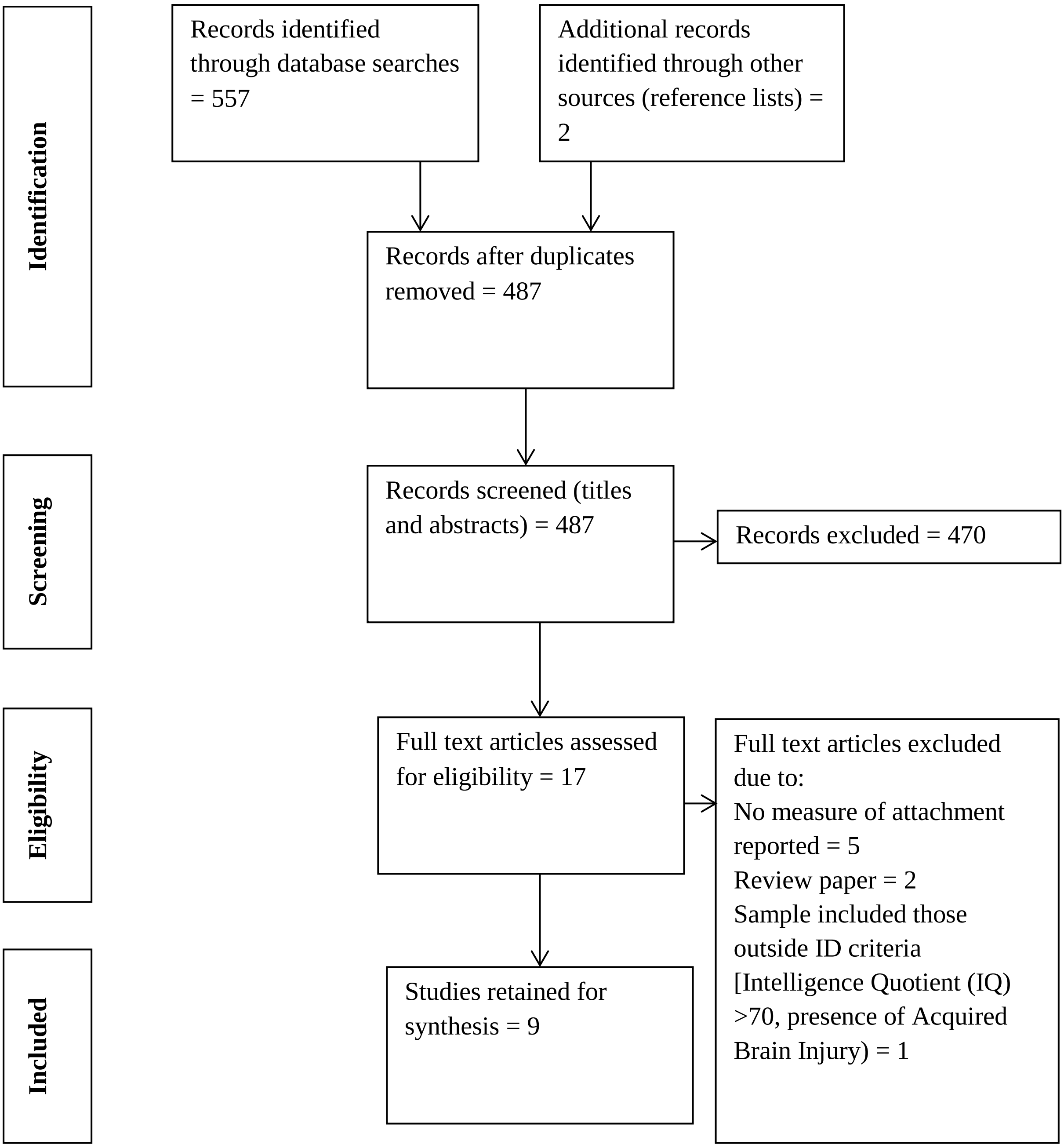

Figure 1. PRISMA Flow-of-Information Diagram

Author and Year	**Design and Analysis**	**Measure used**	**Location**	**Participant characteristics**	**Participants and respondents**	**How measure administered**	**Concept/category/outcome**	**Findings**	**Limitations**
Gallichan and George (2018)	AAPs of adults with ID were coded by 2 judges for inter-rater reliability. 6 participants repeated the assessment for test-retest reliability. Two independent experts rated 10 cases on the links between the AAP analysis and the clinical history.	Adult Attachment Projective Picture System (AAP). Validated and reliable in typically developing adult population.	UK	*N* = 20 Age: M = 31 R = 20-55 *N* Male = 12 (60%) *N* Female = 8 (40%)	Participants: adults with ID who had received services from the Community ID Team (CIDT). 2 had undertaken AAP as part of routine clinical work.	Individual presented with 8 line drawings and asked to tell a story about what they can see in the picture. Pictures designed to activate attachment system. Responses audio-recorded and transcribed. Trained judge codes transcript for attachment state of mind and trauma markers.	Attachment state of mind. Transcripts classified into one of four standard adult attachment groups: secure, dismissing, preoccupied, unresolved. Unresolved classifications also assigned an alternative classification that best reflects the underlying attachment pattern.	Significant agreement between judges. 5/6 showed stability of classification over time. Majority of expert ratings were ‘good or ‘excellent’. Significant inter-class correlation between raters suggesting good agreement between them. The raters’ feedback suggested AAP had good clinical utility.	Limitations to face validity procedure used – author knew raters, case histories not in standard format, ratings not complimented by standardised measures. Small *N*.
Gallichan and George (2014)	Reported 5 cases in terms of feasibility, validity and reliability of the AAP.	Adult Attachment Projective Picture System (AAP). Validated and reliable in typically developing adult population.	UK	*N* = 5 Age: M = 36.2 R = 21-53 *N* Male = 2 (40%) *N* female = 3 (60%)	Participants: adults with ID attending psychology in a CIDT	Individual presented with 8 line drawings and asked to tell a story about what they can see in the picture. Pictures designed to activate attachment system. Responses audio-recorded and transcribed. Trained judge codes transcript for attachment state of mind and trauma markers.	Attachment state of mind. Transcripts classified into one of four standard adult attachment groups: secure, dismissing, preoccupied, unresolved. Unresolved classifications also assigned an alternative classification that best reflects the underlying attachment pattern.	Possible to code and classify AAPs using the typically developing adult coding and classification system. The authors coded 4 cases blind to each other’s classification; they agreed on classifications for 3, and reached consensus on the fourth. AAP analysis showed strong correspondence with case history material.	Small *N*, case studies → limited generalisability. Face validity explored but not convergent validity by use of other measures. Inter-rater reliability explored but not test-retest. All participants had IQ in mild range.
Penketh et al. (2013)	Repeated measures. Assessed validity and internal reliability.	Manchester Attachment Scale – Third Party Observational Measure (MAST). Measure developed for use	UK	*N* = 57 Age: M = 32.7 R = 18-63 *N* Male = 44 (77.2%) *N* female = 11 (19.3%)	Participants: adults with ID accessing ID services. Respondents: 40 NHS staff (68% female) involved in care of participants (12 from CIDT, 28 from forensic team).	Questionnaire. 16 items of observable attachment behaviour rated on 4-point Likert scale.	Observable behaviour. Total score of attachment security.	The MAST was found to have good internal consistency, test–retest reliability and convergent validity. MAST scores were negatively	Small convenience sample, assessment of validity confined by no other reliable and validated measure of attachment in ID to compare to, assessment suggested most participants had mild ID,

		in ID population.						correlated with level of ID and CB.	no 'cut off' for secure attachment.
Larson et al. (2011)	Cross-sectional. Chi squared test used to calculate association between variables.	Modified version of Hazan and Shaver (1987). Original measure validated in typically developing adult population.	UK	*N* = 60 Age: NR *N* Male = 31 (51.7%) *N* Female = 29 (48.3%)	Participants: adults with ID accessing organisations for those with ID (colleges, charities etc) Respondents: Majority = support workers who had known the participant for more than 2 years (no further info provided)	Participants and respondents asked to read 3 descriptions of attachment styles and select one that applies to the participant. Sentences shortened and asked about friendships rather than romantic relationships.	Attachment style. Categorical.	People with mild/moderate ID show same range of attachment styles as general population. Links between CB and insecure attachment found. There was an association between depression and insecure-avoidant attachment.	Level of ID not measured. Relatively small *N*. Reliability/validity not established. No measure of comprehension of vignettes → danger of random responding? Followed adaptations made for children – unknown if same for PWID. Measure requires capacity for self-reflection.
Minnis et al. (2010)	Cross sectional. T-tests examining Reactive Attachment Disorder (RAD) symptom scores and hypothesised risk factors. Associations with RPQ via regression.	Relationship Problems Questionnaire (RPQ)	UK	*N* = 50 Age: M =48.4 SD = 15.3 *N* Male = 35 (70%) *N* Female = 15 (30%)	Participants: adults with ID in 2 long stay hospitals for PWID between June 2004 and March 2005. Respondents: carers (no further info provided)	Each participant and carer interviewed and questionnaire (RPQ) completed by author. RPQ = 18 item questionnaire validated in sample of children with similar developmental age to sample.	Continuous measure of observable behaviours symptomatic of RAD. No cut-off point for diagnosis.	RAD symptoms were present in the sample, and symptom scores were independently associated with early childhood adversity, diminished with age, but were not associated with cognitive ability, gender, other disabilities, nor number of childhood years in institutional care.	Relatively small *N*. Reliability and validity of RPQ in ID not reported.
De Schipper and Schuengel (2010)	Cross sectional	The Secure Base Safe Haven Observation list (SBSHO)	The Netherlands	*N* = 4 (aged 18 +) (Total *N* = 156)	Participants: attending a group care setting, either a therapeutic day care facility for children and adolescents with ID or a residential setting. Moderate to severe ID. Respondents: Support staff in the setting who had known the participant for at least 2 weeks. Support staff had usually followed a training programme in care for people with disabilities	20 item observation list of secure attachment behaviour rated on 7-point Likert scale.	Observable behaviour. Total score of attachment security.	Young people who showed more secure attachment behaviour towards professional caregivers were less irritable, less lethargic and less stereotypic in their behaviour, even when developmental age and Autism were controlled for.	Small *N* (for those 18+), no cut off for secure attachment, claims to have shown empirical support for reliability and validity, but validity not assessed against 'gold standard' measures, level of ID – how assessed not reported, focus on secure attachment behaviour.

					within their education.				
Clegg and Sheard (2002)	Retrospective examination of a survey of staff and carers supporting school leavers. Chi-square analysis examining presence/ absence of problem behaviour and over-investment in relationships.	Survey (unnamed)	UK	*N* = 43 *N* approached for survey = 54 Details for the 54: Age: M = 23 R = 20-26 *N* Male =25 (46.3%) *N* Female = 29 (53.7%)	Participants: school leavers with severe ID. Respondents: main carer and one member of staff from main day placement of participant.	24 item survey of behaviour in last 3 months. Question relevant to study was "does this person over-invest in one or a few relationships which become a source of jealousy?"	Observable behaviour.	Thirty-four per cent of students were rated by placement staff as over-investing in one or a few relationships. Students without such problems were significantly less likely to show challenging behaviours, while those with them were significantly more likely to be living outside the family home.	Demographic detail for those included in study (rather than approached and permission given) not provided. Final *N* unclear. Relatively small *N*. No validity/reliability reported. Attachment assessed by response to 1 question about 1 behaviour. Little info on respondents provided. All participants reported to have severe ID – diagnostic assessment process not reported.
Smith and McCarthy (1996)	Cross sectional to examine convergent and discriminate validity of the measure. Repeated measures with a proportion of the sample to examine reliability.	Self-Report Assessment of Attachment Security (SRAAS)	UK	*N* = 31 Age: M = 32.4 R = 20-54 *N* Male = 14 (45.2%) *N* Female = 17 (54.8%)	Participants: living at home and attending adult training centres. Ten had Down's syndrome, remainder had unidentified ID. ID ranged from mild to severe.	Semi-structured interview. Participants asked what they would do if they were feeling miserable, worried or frightened. 3 multiple choice answers: tell someone, not tell anyone, express feeling in uncontrolled way. Responses categorised into attachment categories of secure/insecure.	Attachment state of mind regarding comfort seeking. Secure/insecure categorisation.	The reliability of the procedure was found to be high over time and significantly related to self-esteem and level of independent behaviour in the home. It was not related to general intellectual functioning or level of independent behaviour outside the home.	Relatively small *N*. Measure only focuses on comfort seeking – ignores other aspects of attachment relationships. Procedure only produces secure-insecure dichotomy. Findings can't be generalised to those without the conversational abilities to engage with the measure. No formal assessment of verbal language skills.
Clegg and Landsall-Welfare (1995)	Report 3 cases where applying attachment framework to 'enmeshed relationships' between person with ID and a member of care staff provided at least partial resolution of	List of indicators for those whom attachment theory may provide a clinically useful explanation (unnamed)	UK	*N* = 3 Age: R = 26-43 *N* Male = 1 *N* Female = 2	Participants: moderate to severe ID. Referred to psychology as part of multidisciplinary intervention including individual therapy, support to staff, support to family.	8 indicators for those whom attachment theory may provide a clinically useful explanation: a) anger/distress is intermittent, b) person resists exploring physical world, c) difficulty exploring intellectually, d) fixation on one carer, e) anger/distress expressed in selected	Observable behaviour.	All of the interventions yielded significant client change in three areas: reduction in anger and distress; increased exploration of physical and intellectual environments; and	Small *N*. The clinical experiences described need to be subjected to more systematic examination with a wider range of individuals. List of indicators for attachment difficulties rather than measure per se. Level of ID – how assessed not reported.

	difficulties.					settings, f) early history of additional life-threatening impairments, g) transitions trigger difficulties, h) history of fixation on different carers.		an increase in the range of people to whom the client relates.	Reliability/validity of indicators not reported.

Table 2. Data Extraction Form

Results of Quality Assessment

Available methods of attachment measurement are presented in turn, followed by a narrative interpretation of the data generated by the ‘evidence and clinical utility evaluation tool’. Where the method of assessment is unnamed, the name of the first author of the paper is used as an identifier. Table 3 shows the completed evaluation tool.

Assessment method /paper reference	**Concept/ Construct measured**	**Available evidence**			**Clinical utility**		
		Sample size	**Reliability**	**Validity/ utility**	**Respondent and administrative burden**	**Accessibility/ applicability for adults with ID**	**Materials/ training required**
AAP/ Gallichan and George (2014, 2018)	Attachment state of mind	*N* = 5 (2014) *N* = 20 (2018)	Test-retest: Statistical analysis not possible due to small number of cases used. Test-retest classification agreement for 5/6 cases. Inter-rater: *k* = 0.677, 80% agreement (16/20 cases)	Face validity: Most common ratings for correspondence between AAP and life events/ AAP and client unresolved feelings/risky behaviours = good/excellent. Utility: Most common ratings for extent to which AAP gives clinically useful info = good/excellent.	Potential for attachment stimuli to be activating for respondent, however, projective nature reduces this risk. Relatively short task – 20-30 mins administration time. Little practical administrative burden, though potential emotional burden of content brought by respondent. Transcription time required post administration.	Visual stimuli with modified questions to increase understanding. Task accessible to most people with mild ID. Not accessible to those with visual impairment or non-verbal/more moderate-severe ID. Analysis not dependent on language and cognitive skills as in other measures used with typically developing adult population.	AAP assessment pack, tape recorder and associated cost. Administration training - brief and straightforward. Training to code – lengthy, time intensive, and significant monetary cost.
MAST/ Penketh et al. (2013)	Observable secure attachment behaviour	*N* = 57	Internal consistency: α = 0.750 Test-retest: *r* = 0.807	Convergent: significantly related to Edward Zigler-Yale Personality Questionnaire and SRAAS.	Minimal – brief (16 item) questionnaire.	Not accessible – completed by informant. Possibly applicable for mild-severe ID presentations but further work needed to establish this.	MAST measure and manual – available from author at no cost. No training required.

Larson et al. (2011)	Attachment style	*N* = 60	Not examined	Not examined	Possible respondent burden due to requirements re. reading and reflection, however, brief nature of measure reduces this. Administration burden minimal.	Difficult to ascertain – example questionnaire items not provided in paper. Information provided suggests measure suitable for those with mild ID who are able to read and reflect on thoughts/behaviours with friends, however, not explicitly stated.	Attachment style questionnaire – available from author at no cost. No training required.
RPQ/ Minnis et al. (2010)	Observable behaviours symptomatic of RAD	*N* = 50	Reliable in children of similar developmental age to sample. Not examined for adults.	Validated in children of similar developmental age to sample. Not examined for adults.	Minimal – brief (18 item) questionnaire	Not accessible – completed by informant/ interviewer of informant. Applicability based on level of ID unknown in adults.	Modified RPQ measure. No information on training requirements provided.
SBSHO/ De Schipper and Schuengel (2010)	Observable secure attachment behaviour	*N* = 4	Demonstrated in whole sample aged 3 -23. Unknown for aged 18+	Demonstrated in whole sample aged 3 -23. Unknown for aged 18+	Minimal – brief (20 item) questionnaire	Not accessible – completed by informant. Applicability based on level of ID unknown in adults.	SBSHO measure. No training required.
Clegg and Sheard (2002)	Observable insecure attachment behaviour	*N* = 43	Not examined	Not examined	Very minimal – 1 question	Not accessible – completed by informant. Applicability only known for severe ID presentations, however, not	Questionnaire survey. No training required.

						explicitly reported.	
SRAAS/ Smith and McCarthy (1996)	Attachment state of mind regarding comfort seeking.	*N* = 31	Test-retest: *k* = 0.80	Convergent: significantly related to measures of self-esteem and independence in the home. Discriminant: not related to general intellectual functioning	Potential respondent burden re. recalling emotional states and actions, however, brief measure with short completion time. Administration burden minimal.	Requires emotional understanding/literacy re. emotional states of miserable/worried/frightened and ability to reflect on likely actions in these states. Likely suitable for those with mild ID, not accessible for those with moderate-severe ID, however, this is not stated in paper.	SRAAS interview script and coding scheme – available from author. No training required.
Clegg and Landsall-Welfare (1995)	Observable insecure attachment behaviour	*N* = 3	Not examined	Not examined	Nil – list of behavioural indicators for clinicians	Accessibility- not applicable. Likely applicable for moderate-severe ID presentations based on information provided in paper, however, not explicitly stated.	List of behavioural indicators available in paper. No training required.

Table 3. Evidence and Clinical Utility Evaluation Tool

Available Methods of Attachment Measurement

The Adult Attachment Projective Picture System (AAP)

The AAP (George & West, 2001) assesses attachment state of mind. Individuals are shown seven picture stimuli relating to separation, illness, death, solitude, and threat, and are asked what is happening in the picture, what led up to the scene, what the characters are thinking and feeling, and what might happen next. Responses are audio recorded, transcribed, and coded into one of the four standard adult attachment groups: secure, dismissing, preoccupied, and unresolved. Whilst an individual's inability to organise stories containing painful memories or affect indicates unresolved attachment, the story content and defensive processes can mirror those in the other attachment groups. Unresolved classifications are therefore given an alternative organised classification that best reflects the underlying attachment pattern.

Gallichan and George (2014, 2018) modified three features of the AAP to increase its accessibility for adults with ID, including rewording some of the probe questions, lengthening the 'warm-up' time for people to understand the task, and permitting the interviewer to give a small amount of feedback to support individuals' confidence. The interviewer was also permitted to repeat any unclear utterances that would not be picked up on tape.

The Manchester Attachment Scale – Third Party Observational Measure (MAST)

The MAST (Penketh et al., 2013) assesses observable attachment behaviour in PWID. Using a questionnaire format, informants are required to make inferences about the internalised states, needs and feelings of the person with ID whom they support. The 16 items are rated on a five-point Likert scale ranging from *"strongly agree"* to "*strongly disagree"*. Example items include “the individual actively solicits comforting when distressed”, and “the individual leaves carer/other people easily when he/she wants to do an activity”. The MAST items were generated from a Q-sort of 105 items about what constitutes secure attachment in adults with ID, which was completed by professionals working in the field. The MAST does not have categorical cut offs, and is intended as a continuous measure of attachment security.

Larson (2011)

Larson et al. (2011) adapted Hazan and Shaver’s (1987) attachment statements to increase accessibility via shortening sentences and asking about friendship rather than romantic relationships. Individuals were required to read and select statements about their thoughts and behaviours in relationships, and a similar questionnaire using third person statements was completed by someone who knew the person with ID. The measure permits report of one of three attachment styles: secure, insecure-anxious/ambivalent, and insecure-avoidant.

Relationship Problems Questionnaire (RPQ)

Minnis et al. (2010) used a modified version of the RPQ to examine RAD symptoms. The 18-item questionnaire is typically used to assess children; therefore Minnis et al. (2010) changed any wording with reference to age to “developmental level”. Statements about the individual’s behaviour are usually rated by an informant using a four-point Likert scale ranging from *“not at all like”* to *“exactly like”*. Minnis et al. (2010) modified the RPQ to administer it in an interview format informed by the participant with ID and a respondent. The RPQ has no diagnostic cut-off, and is recommended for use as a continuous measure of behaviours.

Secure Base Safe Haven Observation list (SBSHO)

The SBSHO (De Schipper & Schuengel, 2006) assesses attachment security in young people with ID. It contains 20 items relating to observable behaviour, which are rated by an informant on a seven-point Likert scale. The items were derived from the Attachment Q-Set (Waters, 1995). Additional items based on observations of young PWID were added by the authors, and include statements such as “when this person is ill or hurt, he/she stays closer to me than on other days”. Focusing on attachment security due to being informed by the Attachment Q-Set (Waters, 1995) and evidence collected by the authors about secure attachment behaviour in ID (De Schipper & Schuengel, 2010), it is a continuous measure of attachment security and has no diagnostic cut-off values.

Clegg (2002)

Clegg and Sheard (2002) describe a method of assessing observable attachment behaviour. They examined a 24-item survey which covered the last three months and was completed by individuals supporting PWID. They examined the survey with specific reference to one question which asked “Does this person over-invest in one or a few relationships which become a source of jealousy?”. Presence of such behaviour was taken to be indicative of attachment difficulties.

Self-Report Assessment of Attachment Security (SRAAS)

Developed specifically for PWID, the SRAAS (Smith & McCarthy, 1996) activates an individual’s attachment system by asking about emotional experiences termed by the authors as containing “feelings of low felt security” (p. 156). Individuals are asked to choose which of three behaviours they would enact if they were feeling miserable, worried and frightened.

Behaviours include: tell someone, don't tell anyone, or express the feeling in an uncontrolled way (e.g., throw things, shout). Responses are categorised as representing secure or insecure attachment, with telling a significant other for at least two of the three emotions taken as indication of attachment security.

Clegg (1995)

This paper reported a list of indicators which may be seen in those with attachment related difficulties, such as "intermittent anger/distress", and "resistance to exploring the physical world". The authors describe the list of indicators as "for those whom attachment theory may provide a clinically useful explanation" (p. 301).

Concept/Construct Measured

Two papers described a measure of attachment state of mind in line with the developmental tradition (Gallichan & George, 2014, 2018). A further paper described an assessment of attachment state of mind in relation to comfort-seeking only (Smith & McCarthy, 1996). One paper described a measure of attachment style in line with the social psychology tradition (Larson et al., 2011). Two papers measured observable secure attachment behaviour (MAST, SBSHO), two measured observable insecure behaviour (Clegg, 1995, 2002), and one measured observable behaviours symptomatic of RAD (Minnis et al., 2010).

Sample size

Sample sizes varied between three and 60 participants. Whilst one paper (SBSHO) reported a larger sample size (*n* =156) than this, correspondence with the authors determined a very small number of individuals were over eighteen (*n* = 4) and therefore eligible for inclusion in this review. Three papers reported sample sizes no greater than five, two papers reported sample sizes between 20 and 31, and four papers reported sample sizes ranging from 43 to 60.

Reliability

Reliability information was reported for five of the measures (AAP, MAST, RPQ, SBSHO, SRAAS). Psychometric evaluation of the other three measures (Larson et al., 2011; Clegg & Sheard, 2002; Clegg & Landsall-Welfare, 1995) was not conducted. Of those measures that do have reported reliability, two do not report this specifically in relation to adults. The RPQ has demonstrated reliability in children of a similar developmental age to the sample used by Minnis et al. (2010), however, reliability properties were not specifically examined for the adult sample. The SBSHO has demonstrated reliability in young people aged up to eighteen, however reliability properties were not examined for those aged eighteen and over in the sample used by DeSchipper and Schuengel (2010). Correspondence with the authors concluded that the small number of individuals (*n* = 4) aged eighteen and over in their sample would preclude analysis of reliability data for the purposes of inclusion in this review.

Of the remaining three measures for which reliability evaluation was conducted, all examined test-retest reliability. The test-retest statistic for both the MAST and the SRAAS was found to be good ($r = 0.807$ and $r = 0.80$ respectively). The time-points used between retesting of the SRAAS were longer than the MAST (three months compared to 18 days), however, only a proportion ($n = 10$) of an already small sample size ($n = 31$) was used. This was also the case for the AAP, where test-retest classification agreement was met for five out of six cases examined. Statistical analysis was not possible due to the small sample size. Internal consistency was reported for only one measure (MAST). The authors describe the internal consistency of the MAST as ‘adequate’ ($\alpha = 0.750$). The only measure for which inter-rater reliability data was reported, the AAP, showed 80% agreement between raters (16/20 cases) and a Cohen's Kappa value of 0.677, making it one of the measures with the greatest degree of psychometric evaluation conducted (alongside the MAST), and a moderate-good level of agreement between raters.

Validity

The five measures to report reliability information also reported validity information. Again, the RPQ and SBSHO do not report this for the adult sample used. Convergent validity data was reported for two measures (MAST, SRAAS). The SRAAS was significantly related to self-esteem and independence in the home, but it was not compared with other attachment measures. The only measure to examine convergent validity with another attachment measure was the MAST, which was significantly related to the SRAAS. Discriminant validity was only reported for the SRAAS, with no relationship between the measure and IQ. Only one measure reported face validity (AAP), with good/excellent ratings for its correspondence with life events and risky behaviours.

Materials and Training

Five of the measures take the form of a questionnaire (MAST, Larson et al., [2011], RPQ, SBSHO, Clegg, [2002]), meaning few materials are required for administration. Four of these are completed by an informant (MAST, RPQ, SBSHO, Clegg, [2002]), and one is completed by the individual being assessed (Larson et al., 2011). Training requirements for the RPQ were not reported. The other questionnaires do not require training for use, with two measures reporting availability from the authors at no cost (MAST, Larson et al., [2011]). One paper reports a checklist of behavioural indicators of attachment difficulties (Clegg, 1995). This checklist is published in the original paper meaning no further training or cost is indicated for its use.

Of the remaining two measures, one uses a free-response method to visual stimuli (AAP), and one is based on an interview (SRAAS). Use of the AAP requires an administration pack of visual stimuli and a tape recorder, which have associated costs. Administration training is brief and straightforward, however, training to code transcripts is time-intensive and has significant monetary cost. Once trained, the coder only needs access to the transcript of the interview to be able to code it. The SRAAS administration requires a copy of the interview script and coding scheme which are available from the author. No training is required.

Respondent and Administrative Burden

The four questionnaires completed by informants (MAST, RPQ, SBSHO, Clegg, [2002]) and the checklist (Clegg, 1995) likely have little respondent and administrative burden by nature of their format; however, this information was not explicitly reported. The questionnaire completed by the individual being assessed (Larson et al., 2011) and the SRAAS have possible respondent burden due to the requirements for emotional reflection (both measures) and reading (Larson et al., 2011), however, their brief nature reduces this to some degree. Administrative burden for Larson et al. (2011) and the SRAAS is minimal. The AAP has the potential burden of the attachment stimuli being activating for the respondent, however, the projective nature of the measure reduces this risk (George & West, 2012). It has a 20-30 minute administration time and little practical administrative burden, though there is potential emotional burden from hearing traumatic content in respondents’ stories. Transcription time post administration is also required.

Accessibility and Applicability in Relation to Level of ID

For two measures (AAP, MAST), explicit comments were made on their applicability in relation to level of ID. The AAP reported being applicable for use with those with mild ID, where the MAST reported that further research was required in order to establish its utility across levels of ID from mild to severe. Whilst informant-rated measures, by their nature, may be more suited to assessing those with more moderate-severe ID, the extent to which the behaviours described in these measures are likely to be observed across ID level presentations was not reported. The four informant-rated questionnaires and the checklist are not accessible for PWID by virtue of their focus on observable behaviours and the content and language used to assess this. With the adaptations employed, the AAP task is reported to be accessible for most individuals with a mild ID, however, is not accessible for those with visual impairments, those who are non-verbal, or those with a more moderate-severe ID. Transcript analysis of the AAP is not dependent on language and cognitive skills, as in other adult attachment measures used in the typically developing population. Accessibility of Larson et al.’s (2011) measure was difficult to ascertain from the information reported, but it would seem suitable for those with mild ID, based on the requirement to read and reflect on thoughts and behaviours. The SRAAS requires emotional literacy and the ability to reflect on action in relation to emotion, making it likely suitable for those with mild ID, and not accessible for those with more moderate-severe ID, however, this was not explicitly reported.

Discussion

This review examined nine studies which reported or employed a method of assessing attachment in adults with ID, with specific reference to the available evidence for, and clinical utility of, the methods found. It aimed to organise the literature in the field and provide a reference for clinicians when selecting attachment assessments for adults with ID.

To our knowledge, this is the first review of its kind, with previous reviews focusing on the application of attachment theory to PWID (Mullen, 2018), and prevalence of attachment difficulties in this population (Hamadi & Fletcher, 2019).

The review highlighted a scarcity of research in the area, with only nine papers meeting relatively broad eligibility criteria. This is in comparison to typically developing populations, where reviews have identified upwards of thirty different attachment assessments (Ravitz et al., 2010; Jewell et al., 2019). The nine papers reported a variety of assessment methods ranging from checklists of observable behaviour, to self-report questionnaires of attachment style, to projective measures of attachment state of mind. This variety hindered attempts to synthesise the papers, as the assessment tools they described tapped different psychological constructs. This would seem to stem from divergence in the theoretical formulations underlying the measures. Such theoretical differences are apparent in the typically developing adult literature, where despite the significantly larger research body, there is debate regarding the theoretical underpinnings of attachment and the best forms of assessment (Watkins, 2016). Whilst this debate may hold for the PWID literature too, greater specification and clearer reporting of the theoretical formulation underpinning each available measure for PWID would represent an important first step in establishing this. Whilst some measures presented a theoretical formulation (AAP, MAST, RPQ, SBSHO, SRAAS), this appeared lacking (Clegg [1995, 2002]), or inconsistent (Larson et al. [2011]), for others. Arguably, clarity of the theoretical underpinnings would aid specificity of the measures. This proposition is somewhat hindered however, by the lack of well-validated measures by which to compare newly developed ones. This may be partly due to the challenges in establishing the reasons for any observed behaviour in PWID, for whom the ID itself, communication difficulties, and physical conditions associated with ID, all need to be considered as alternative or additional causal hypotheses when classifying behaviour in relation to 'attachment' (BPS, 2017).

The lack of psychometric evaluation of some of the measures in this review impacted the degree of synthesis possible, and hinders attempts to establish prevalence of attachment classifications in this population (Hamadi & Fletcher, 2019). Whilst more recently published papers demonstrated increased focus on psychometric properties, much more work is needed. However, this will be difficult until the challenges to construct validity have been addressed. In addition, clarification is required in relation to RAD in PWID given that it is a separate construct from attachment security (Hamadi & Fletcher, 2019). Similarity and divergence in RAD compared to the typically developing population would represent a reasonable first line of enquiry. Finally, consideration of the Andressen characteristic regarding cultural adaptations highlighted a lack of reporting of cultural applicability and cross-cultural reliability of the measures. All but one study was completed in the UK, with the only exception also having been conducted in the Western world (the Netherlands).

In drawing conclusions with regards to the evidence base to date, two measures reported the greatest degree of psychometric evaluation, namely that of the MAST and the AAP. Both have demonstrated reliability and validity, with the AAP having undergone additional psychometric evaluation regarding inter-rater reliability and face validity that is lacking in the evaluation of the MAST conducted to date. Considering clinical utility of the two measures again places the AAP with additional properties lacking in the MAST, most significantly its capacity for use directly with the individual, and its projective nature as a means of minimising attachment-related distress. Such information points to the potential of the AAP as a measure of adult attachment in PWID, however assessment selection should be considered in the context of the aims of an assessment and formulation, an issue which is discussed in more detail later in this paper.

Strengths and Limitations

This review represents the first attempt at organising the literature on available methods of attachment assessment in adults with ID, to aid clinicians in selecting the most appropriate measure.

The inclusion of papers measuring attachment as part of a wider study, plus the often early-stage nature of the research in those papers on measures themselves, meant that the reporting of psychometric properties varied greatly. This precluded use of a quality assessment tool for studies of psychometric properties (e.g., COSMIN), and meant a lack of quantitative assessment of the quality of the papers included in the review. Whilst qualitative appraisal was considered most useful given the stage of the research into attachment measures for PWID, it should be acknowledged that a quantitative quality assessment would have reduced the chance of bias. Further, the evaluation tool used was developed specifically for this review. There is a lack of definitional clarity in the literature as to what constitutes clinical utility, and therefore a broad ranging, multi-dimensional model was used to inform thinking in this review. This model was not developed for literature appraisal specifically; therefore, there may be aspects of clinical utility reporting that would benefit from further examination (e.g., generalisability to non-clinical populations, the utility of the measure at an individual as well as a population-level). In addition, whilst aspects of a disability measure appraisal tool were used to capture additional aspects such as accessibility, it should be noted that the tool was developed for the evaluation of outcome measures, and the psychometric properties of the tool itself have not been examined. The review was also limited to published data written in English in peer-reviewed journals.

The potential limitations of the underlying assumptions of attachment theory as applied in relation to the measures should also be considered. It has been argued that classification of caregiving relationships can be pathologising, and that measures neglect issues relating to ethnicity, culture, and class by viewing attachment through an Anglo-centric lens (Buchanan, 2013). It has also been suggested that the positivist measures described in this review do not account for lived experiences such as the social identities that form and reform over the lifespan in response to injustice (Campbell and Baikie, 2012). This issue may be of particular pertinence for PWID given that they experience high rates of stigma and prejudice (Gordon et al., 2004; Nagata, 2007).

Implications for Research

Further research is needed to qualify what constitutes ‘attachment’ for PWID. Work to date has focused on attachment behaviour, particularly in relation to secure attachment (Penketh et al., 2013), and therefore less is known about insecure presentations and how attachment may differ for those with mild-moderate ID compared to those with severe or profound ID. This may be particularly pertinent for those with multiple or profound disabilities, where behaviour may be attributed to the seeking of tangible reinforcement rather than to initiation of attachment-directed behaviours (BPS, 2017). Such attributions are at odds with evidence that the severely distressed behaviour at times seen in multiple or profound disability can be rooted in childhood trauma (Sinason, 2010), and worked with therapeutically (Franskish, 2016). Establishing any difference and divergence in presentation is therefore a crucial first step in ensuring the successful development of any measure of attachment for PWID. Additionally, children with ID have been shown to demonstrate differentiated attachment behaviour (Vandesande et al., 2018). Research would therefore benefit from examining whether this is also the case for adults with ID, given they are often supported by, and therefore have relationships with, multiple individuals. Further, exploration of the cross-cultural validity of the assessments is required. Although attachment theory is a cross-cultural framework (Hamadi & Fletcher, 2019), this needs to be established for PWID, and following this, the applicability of current methods or the requirement for new ones considered.

For the assessments reported in this review, future work should focus on using larger sample sizes, which would increase statistical power in order to establish psychometric results more clearly. Use of longitudinal designs would permit more rigorous examination of test-retest reliability, as well as greater examination of associations between the measure and theoretically-related concepts (e.g., CB, self-esteem) in order to establish convergent validity. Finally, research would benefit from exploring the balance between traditional psychometrics and aspects of clinical utility, such as accessibility for PWID, in order to increase the range of measures available.

Implications for Clinical Practice

The present review highlighted that a number of different concepts are examined under the theoretical umbrella of ‘attachment’. Whilst this review aims to aid clinicians when selecting measures, this requires sufficient understanding of the concepts and terminology used in attachment research so that measures are selected based on clinical need. Given that clinicians can already find it difficult to know how attachment concepts can be applied to clinical settings (Burke et al., 2016), the different terminologies used may further hinder practitioners’ use of attachment theory in their practice. Arguably, greater accessibility of the literature, plus implementation of attachment-related training may increase clinicians’ confidence in using attachment theory. This aforementioned multiplicity in the meaning of ‘attachment’ (coupled with the variability in reliability and validity of measures) means that any instruments used for assessment should be interpreted with caution (BPS, 2017). It also points to the importance of working within practice guidelines for psychological assessment, where use of more than one assessment tool which informs a hypothesis to be reviewed over time is advisable (Wright, 2011).

These challenges accepted, further development and psychometric evaluation to produce a well-validated measure of attachment in PWID would help in understanding those at risk of attachment difficulties (Hamadi & Fletcher, 2019), and support services to think about how best to ensure PWID are able to make and sustain relationships as outlined in Valuing People Now (Department of Health, 2009). It may be that no one such measure exists or can be developed, as the range of ways in which attachment is constructed by the papers in this review suggests that there may not be one single attachment construct, or at the very least, not one single view as to what constitutes attachment for PWID. Clinicians may therefore be best placed, at the present time, to ask which aspect of attachment they are aiming to assess, rather than focus on what the ‘gold standard’ may be, and to do this in the context of a broader assessment and formulation rather than for diagnostic purposes per se (BPS, 2017).

Conclusions

This review provides information to help clinicians select an attachment assessment method, with focus on the available evidence for, and clinical utility of, available measures. Developing and selecting an appropriate method of assessing attachment in PWID requires careful consideration of the multiple factors which present a challenge to the field. These include the lack of established evidence base for some measures, particularly in relation to reliability and validity, lack of comparable ‘gold standard’ measures by which to assess construct validity, use of small sample sizes, and differences in the attachment constructs measured. Work is needed regarding establishing what constitutes attachment for PWID, and with this in mind, the reliability and validity of any current and future measures. Such tools would help in understanding and ensuring that PWID are able to create and maintain meaningful relationships, which has the potential to impact emotional regulation and have a positive impact on their psychological wellbeing.

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Attachment, Psychological Health and Interpersonal Functioning: A Comparison of Clinical and Non-clinical Groups of People with Intellectual Disability.

Prepared for submission to Advances in Mental Health and Intellectual Disabilities. [2]

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[2] Author guidelines for Advances in Mental Health and Intellectual Disabilities are in Appendix 2. The word limit for this journal is 6000 words. The required style of referencing is Harvard. The word count is exceeded, and tables and figures included in the main text, for examination purposes only.

Abstract

Purpose

People with Intellectual Disability (PWID) are at increased risk of attachment-related difficulties, yet research in the area is lacking. In the typically developing population, insecure and unresolved attachment is more prevalent in clinical versus non-clinical groups. Individuals categorised as unresolved are also more likely to have difficulties regarding psychological health and interpersonal functioning than individuals categorised as resolved. This study investigates whether these differences also hold true for PWID.

Design/methodology/approach

A cross-sectional, between-group design was employed. PWID (clinical group *n* = 11, non-clinical group *n* = 13) completed measures of attachment, psychological distress/positive well-being, and interpersonal functioning. Differences between clinical/non-clinical groups in relation to attachment security and resolution were examined. Differences between individuals categorised as unresolved/resolved in relation to psychological distress, positive well-being and interpersonal functioning were also examined.

Findings

No participants were classified as securely attached. There was no difference between clinical and non-clinical groups with regards to distribution of resolved/unresolved classifications. There was no difference between individuals categorised as unresolved and individuals categorised as resolved with regards to psychological distress, positive well-being or interpersonal functioning.

Originality

This study is one of only three to examine attachment state of mind in PWID, and the first to examine differences between clinical/non-clinical groups and individuals categorised as unresolved/resolved. Insecure attachment appeared to be a constant feature of PWID in the present study, suggesting that consideration of interpersonal environment and attachment-based interventions may be warranted not only for a greater number of individuals than previously thought, but also for the wide range of settings and contexts in which PWID live their lives.

Keywords

Attachment, psychological health, interpersonal functioning, Intellectual Disability

Introduction

Attachment

Attachment theory states that a close and consistent relationship with a caregiver is fundamental to infant survival and development (Bowlby, 1969/1982). Often defined as an 'affectional' or 'emotional' bond (Bowlby, 1977), the attachment relationship is thought to be reciprocal in nature, being influenced by both the child and caregiver (Papalia *et al.,* 1999). Early initiation of 'attachment behaviours' such as crying and smiling by the child are thought to help create proximity with the caregiver, leading to an emotional tie which develops over the course of the infant's life.

The relationship between infant and caregiver is thought to facilitate development in a range of areas, most notably that of the child's 'Internal Working Models (IWM)'. Beginning to develop as the child reaches its first year of life, daily experience of interaction with the caregiver is hypothesised to give rise to a working model for the child, relating to whom and where attachment figures can be found, and how they may likely respond (Bowlby, 1973). As the infant grows, physical closeness to the caregiver reduces, and relationships become ruled by IWM. As IWM are thought to be universal to all, the dyadic relationship between child and caregiver involves both the IWM of the child, as well as that of the caregiver (Fletcher and Gallichan, 2016). Over time the child is able to utilise their IWM of the caregiver without them being physically present, as well as recognise that their attachment figure has different needs to themselves (Fletcher and Gallichan, 2016). This facilitates recognition that relationships require negotiation, which allows the attachment relationship to become a 'goal-corrected partnership' (Fletcher and Gallichan, 2016), typically by the age of three years when the child's verbal skills and theory of mind are developing.

Following Bowlby's (1969/1982) proposition that attachment is relevant across the life span, the developmental model of adult attachment stemmed from analysis of adults' accounts of relationships with attachment figures via the Adult Attachment Interview (AAI; George *et al.*, 1984/1985/1996). IWM are thought to guide relationships into adulthood, used by the individual to predict behaviour and events regarding themselves, others and the world (George and West, 2001). The 'working' nature of the model means that there is scope for new experiences to be integrated into it, or for old attachment experiences to be 'reworked'. Indeed, Bowlby stated that significant changes in the attachment environment in adulthood could lead to revision of the model of self (Bowlby, 1969/1982).

IWM have been categorised according to the 'security' of an individual's attachment relationships. First proposed in relation to patterns seen in childhood (Ainsworth *et al.*, 1978; Main and Solomon, 1990), four analogous categories have been identified in relation to adult attachment (Main and Goldwyn, 1985/1988/1994): secure, preoccupied, dismissing, and unresolved. Whilst the behavioural expression of the different attachment patterns may differ from childhood to adulthood, the central features of these groups are proposed to be consistent across the life course (George and West, 1999). Secure attachment is thought to develop from an attuned and consistent response by the caregiver, which results in an IWM that other people and the world are safe and reliable. The individual is able to draw on internal representations of attachment in order to feel safe and protected, and these factors permit flexibility in attachment relationships (George and West, 2012). The needs and feelings of both the self and other in the relationship are integrated, which results in the aforementioned 'goal-corrected partnership', allowing the individual to feel safe and have a sense of well-being (George and West, 2012).

Where caregiver responses are inconsistent due to environments containing abuse, neglect and rejection, insecure attachment can develop (Bowlby, 1969/1982). The individual is unsure as to whether they can depend on attachment figures or internal representations for protection (George and West, 2012), and so defensive processes develop to place painful thoughts and feelings outside of consciousness (Webster *et al.*, 2009). Bowlby (1969/1982) described three forms of defence, later operationalised for measurement via adult attachment assessments (George and West, 2001). The first defence, that of deactivation, involves blocking of attachment-related cues (Webster *et al.*, 2009). Rejection and disappointment are avoided by the 'shutting down' of the system, such that the importance of close relationships is minimised and the self is seen as self-sufficient (Dozier *et al.*, 2008). This process is typically associated with classifications of dismissing attachment. In the second defence, that of cognitive disconnection, attachment-related feelings are present in awareness. However, defensive strategies distract the individual from the attachment-activating source (Webster *et al.*, 2009). The self is viewed negatively and contact with attachment figures via maximisation of attachment signals is sought in an effort to reduce anxiety (Dozier *et al.*, 2008). This process is typically associated with classifications of preoccupied attachment.

Bowlby's (1980) final defence related to that of segregated systems, proposed to develop in order to keep memories and emotions relating to attachment-trauma in separate mental models (Webster *et al.*, 2009). This defence is thought to be particularly employed by individuals who have experienced significant loss, abuse, or trauma (Main and Hesse, 1990), and was first operationalised for assessment and categorisation purposes by Main and Solomon (1986, 1990). Occurrence at an early age, a sudden or violent nature, or an otherwise traumatic experience of loss are thought to result in intense or overwhelming fear which leads to defensive exclusion of the loss (Main and Hesse, 1990). This often-termed ‘extreme’ form of exclusion aims to maintain psychological functioning via keeping threatening or conflictual attachment material from consciousness in multiple IWM (Webster *et al.*, 2009). However, this process cannot always be maintained, particularly at times of intense activation of the attachment system (George and West, 2001). Should intense activation occur, the segregated system can break down, resulting in attachment material resurfacing (Webster *et al.*, 2009). This disrupts the individual’s thinking and behaviour, which can become disorganised (Webster *et al.*, 2009). Segregated systems have been defined as relating to a lack of resolution with regards to attachment state of mind, alternatively termed an ‘unresolved’ state of mind for the purposes of adult classification (Main and Goldwyn, 1985/1988/1994). This process contrasts with the first three attachment classifications described above (secure, preoccupied, and dismissing), which can be considered ‘resolved’ in that they can contain segregated material and represent a consistent and adaptive strategy to maximise proximity to the caregiver (Fletcher and Gallichan, 2016).

Attachment and Psychological Health

According to Bowlby (1988), the experience of inconsistent, unreliable, or difficult and traumatic attachment relationships may affect the development of a ‘secure mental foundation’, reduce resilience in coping with stressful life events, and predispose an individual to psychological distress (Mikulincer and Shaver, 2012). This relationship is hypothesised to be mediated by fractures in the aforementioned mental representations of relationship patterns (Juen *et al.*, 2013). This is particularly the case regarding unresolved attachment, where segregated systems can fail in the case of intense activation of the attachment system (Webster *et al.*, 2009). Painful attachment material may inundate the individual, meaning that affect regulation breaks down (Juen *et al.*, 2013). Such a process is in accordance with Bowlby’s (1980) hypothesis that emotional instability can result following loss or death of an attachment figure.

Given the lifelong relevance of attachment theory (George and West, 2012), and that defensive processes and IWM are thought to be consolidated over time (Main *et al.*, 1985), research has examined the relationship between attachment and psychological health in adult life. Attachment representations consistent with the defences theorised by Bowlby (1969/1982) have been found to be overrepresented in a range of clinical groups compared to controls (Juen *et al.*, 2013). This is particularly the case for unresolved attachment, with findings being particularly strong in relation to diagnoses of Borderline Personality Disorder (BPD) and Post Traumatic Stress Disorder (PTSD; a term recognised approximately five years prior to that of unresolved attachment). Here, unresolved attachment has been reported to be as high as 80% (Agrawal *et al.*, 2004) and 68% (Bakermans-Kranenburg and Van IJzendoorn, 2009) respectively. In a clinical sample of mixed diagnostic presentations, unresolved attachment was the predominant classification, with increased evidence of segregated systems and uncontained personal experiences relative to controls (Juen *et al.*, 2013). Such evidence provides a potential etiological mechanism for psychological distress, furthered by findings that unresolved attachment in clinical groups may in part be underpinned by diminished ability to be alone, where there is greater requirement to draw on one’s own internal representational world (Juen *et al.*, 2013).

Attachment and Interpersonal Functioning

A further factor thought to mediate the relationship between attachment and psychological distress is that of interpersonal functioning. Such a proposition would make sense given attachment theory purports that an individual’s IWM provide a template for relationships

(Bowlby, 1969/1982), with early attachments supporting development of interpersonal skills involving empathy, negotiation and conflict resolution (Riggs, 2010). Longitudinal child studies have demonstrated that attachment security is related to many aspects of successful interpersonal relationships including reciprocity, capacity for empathy, and conflict resolution and problem solving skills (Carlson and Sroufe, 1995). In the typically developing population, attachment is also associated with quality of interpersonal functioning (Thorberg and Lyvers, 2010), with insecure versus secure attachment being associated with more difficulties in interpersonal relationships (Horowitz e*t al.*, 1993). A study of a mixed psychiatric sample found that insecure attachment was associated with psychological distress not only via reduced emotion regulation capacity, but also via diminished expectations of others' capacity to provide comfort, support, and reassurance in times of need (Cloitre *et al.*, 2008).

Whilst insecure attachment representations and interpersonal functioning have an evidenced relationship (Thorberg and Lyvers, 2010), such interpersonal difficulties are thought to be particularly prevalent for unresolved individuals. Research has found that unresolved individuals display less affection and humour, and more controlling relationship behaviours than preoccupied or dismissing individuals (Creasey, 2002; Creasey and Ladd, 2005). For unresolved individuals, disorganised mental representations may result in difficulty relating to important individuals in their life (Busch e*t al.*, 2008). In adults who report childhood circumstances which typically give rise to unresolved attachment (i.e. those of abuse, neglect and loss), greater interpersonal sensitivity, hostility and aggression have been found (Morimoto and Sharma, 2004). For these individuals, relationships elicit memories and emotions associated with attachment loss, resulting in feelings of fear (Bowlby, 1980). Such circumstances are hypothesised to give rise to anger as a defensive response (Bowlby, 1980).

Should unresolved individuals experience anxiety or anger in interpersonal interactions, attempts to repress these feelings may be all-consuming, resulting in the individual appearing less responsive and engaged (Busch *et al.*, 2008). In circumstances where repression is not possible due to the event or interaction being particularly triggering of the attachment system, emotions connected to the loss may surface suddenly, being directed to the other individual in the interaction (Busch *et al.*, 2008). Such processes inhibit flexible responding in unfavourable situations (Carlson and Sroufe, 1995), and are in line with Bowlby's (1980) theory that should emotions regarding loss be repressed, they are incorrectly directed to other individuals who are present.

Attachment in Intellectual Disability (ID)

ID is characterised by significant limitations in intellectual functioning and adaptive behaviour (American Association of Intellectual and Developmental Disabilities, 2020). A number of influences have been proposed to affect attachment relationships for people with ID (PWID). The first of these begins prior to birth, where parents form expectations about their child, which acts as a stimulus for a developing relationship (Fletcher, 2016). For parents who go on to have a child with a disability, feelings of loss for the expected child, and guilt for being unable to prevent the disability have to be balanced against protecting and meeting their child's needs (Fletcher, 2016). Time frames for diagnosis of ID can vary greatly. Delays in this process, parents' search for an 'answer' for their child's experiences, and unexpected diagnoses can increase parental stress and lead to difficulty accepting the chronicity of their child's condition (Koegel *et al.*, 1992). Where for some parents the loss and trauma relating to diagnosis can be resolved relatively quickly, for others this process can take a longer time, or indeed be difficult for years to come (Hornby, 1994; Holder, 2000). Bowlby (1980) hypothesised that grief resolution relates to parents' ability to respond sensitively and provide effective parenting, and

Marvin and Pianta (1996) propose that such theory is applicable in the context of PWID, where loss may relate to that of the expected child. Sensitive responding and a subsequent secure attachment relationship require that parents update their internal representation of their child from that of ‘hoped for’ abilities, to that of ‘actual’ abilities (Atkinson *et al.*, 1999). This process of updating has been demonstrated in the literature, with some parents better able to grieve expectations versus realities for their child than others (Barnett *et al.*, 2003). Those parents who have been able to resolve feelings about their child’s disability are more likely to demonstrate secure attachment with their children (Marvin and Pianta, 1996).

Neurological and temperamental difficulties associated with ID may also serve to affect relationship development. Children with ID may not initiate interactions to the same degree, may have less control over gaze and vocalisations, may have sensory difficulties in receiving, interpreting and responding to parent’s cues, and may have increased difficulty ‘settling’ following changes in internal state (Nind and Hewett, 2006; Fletcher, 2016). These factors can result in parents finding it difficult to read the child’s signals and having to work harder during interactions (Fletcher, 2016). The synchrony and shared pleasure of interactions with caregivers can also be affected (Nind and Hewett, 2006). Parents may either become more directive in interactions, or more remote, potentially impacting the child’s developing autonomy (Fletcher, 2016).

As the child grows, interactions may also be impacted by their own personal feelings about and adjustment to their disability. Feelings of guilt stemming from a sense of not meeting their parents’ expectations, or for causing their parents’ feelings of loss and disappointment may lead to reduced or impacted interactions (Fletcher, 2016). Such feelings are in addition to those relating to a sense of difference, and in some circumstances, distress stemming from a desire for a ‘normal’ life or ‘cure’ for their disability (Fletcher, 2016). These feelings may impact self-esteem, which in turn impacts engagement in interactions as the individual grows (British Psychological Society [BPS], 2017).

To date, the majority of studies examining attachment in ID have focused on children, with mean ages of samples reported to be approximately ten years (Muris *et al.*, 2000; De Schipper and Schuengel, 2010). A higher incidence of insecure attachment relative to secure has been reported (Schuengel *et al.*, 2013), with studies often focusing on observable attachment behaviours (Schuengel *et al.*, 2013). Findings in adult ID samples is variable, with evidence limited by small sample sizes, lack of replication studies, and a paucity of reliable and validated assessment measures (Mullen, 2018). Traditional assessments of attachment state of mind, such as the AAI (George *et al.*, 1984/1985/1996), require individuals to attend to many questions over a long period of time, and to use abstract reflection to link past and current experiences, both of which may be difficult for PWID due to cognitive deficits.

Gallichan and George (2014, 2018) explored the possibility of using an alternative measure to the AAI with PWID, that of the Adult Attachment Projective Picture System (AAP; George and West, 2012). Validated against the AAI ‘gold standard’ (Bakermans-Kranenburg and Van IJzendoorn, 1993) measure of adult attachment, the AAP has a short completion time, is free from constraints associated with memory and verbal coherence, and results in classification which includes both secure and insecure attachment categories, as well as insecure subtypes and distinctions between resolved and unresolved attachment. Gallichan and George (2014, 2018) found no incidence of secure attachment in their samples (*n* = 25, collectively), with 60% of individuals classified as unresolved (Gallichan and George, 2018). They state that the AAP demonstrated potential in terms of accessibility, validity and clinical utility for assessing working models of attachment in PWID, and highlighted the need for further research exploring its application in this client group.

Rationale for the Study

As highlighted above, there is a paucity of research on attachment in PWID, owing in part to the lack of valid and reliable assessment measures available (Mullen, 2018). This is particularly the case for measures of IWM of attachment, which, while widely used in the typically developing population for many years, have not been used with PWID until recently (Gallichan and George, 2014, 2018). This study seeks to contribute to the area via use of a measure of IWM of attachment (the AAP; George and West, 2012) that has growing evidence relating to validity and utility for use with PWID (Gallichan and George, 2014, 2018).

Consistently, insecure versus secure attachment is more prevalent in clinical versus non-clinical samples (Bakermans-Kranenburg and Van IJzendoorn, 2009). This has not been investigated in relation to PWID, so this study will seek to examine incidences of insecure versus secure attachment in a clinical group versus a non-clinical group. Further, the AAP is the only reported measure that has been used with PWID that has the potential to distinguish between resolved and unresolved attachment classifications. Given that unresolved attachment is associated with psychological distress and interpersonal difficulties across both clinical and normative groups (Bakermans-Kranenburg and Van IJzendoorn, 2009; Creasey, 2002; Creasey and Ladd, 2005), this study will seek to examine whether this also holds true for PWID.

In line with Bowlby’s (1969/1982) realist ontology that attachment behaviour can be observed and categorised, a positivist epistemology informs the study. Consideration was therefore given to use of objective methods as sources of data, which resulted in use of a quantitative methodology to answer the research questions which follow.

Research Questions

The following research questions will be addressed.

1. Is the frequency of attachment status categories (secure versus insecure) different between clinical and non-clinical groups of PWID?

   Hypothesis = The frequency of insecure versus secure attachment status will be higher in the clinical group compared to the non-clinical group.

2. Is the frequency of resolved attachment status categories (resolved versus unresolved) different between clinical and non-clinical groups of PWID?

   Hypothesis = The frequency of unresolved attachment status will be higher in the clinical group compared to the non-clinical group.

3. Is the level of psychological distress different between resolved and unresolved groups of PWID?

   Hypothesis = The level of psychological distress will be higher in the unresolved group compared to the resolved group.

4. Is the level of positive well-being different between resolved and unresolved groups of PWID?

Hypothesis = The level of positive well-being will be higher in the resolved group compared to the unresolved group.

5. Is the level of interpersonal functioning different between resolved and unresolved groups of PWID?

   Hypothesis = The level of interpersonal functioning will be higher in the resolved group compared to the unresolved group.

Method

Planning and Design

Consultation was sought from the Liverpool Experts by Experience (LExE) group with regards to the research topic, questions, inclusion/exclusion criteria, materials, measures, and dissemination strategy. This group includes PWID.

Ethical Approval

The study was approved by the DClinPsy Research Review Committee at the University of Liverpool. It received ethical approval from the National Health Service (NHS) Health Research Authority London Dulwich Research Ethics Committee (see Appendices 7 and 8). The relevant Research and Development approval for each trust was also obtained (see Appendices 9, 10 and 11).

Participants

Inclusion criteria were as follows:

- Adults (aged eighteen or over) with ID.
- Individuals able to communicate verbally using the English language.

Exclusion criteria were as follows:

- Individuals with a neurodegenerative condition (e.g., dementia).
- Individuals who had a significant visual impairment not corrected by lenses (and therefore not able to see the AAP stimuli).
- Individuals deemed not able to give a verbal response to the AAP stimuli (i.e., individuals who communicated non-verbally, or those with a speech impediment or communication difficulty that would make it difficult to record their responses onto tape).
- Individuals for whom there was any concern regarding their capacity to consent.
- Individuals who had accessed psychological therapy via a Community Intellectual Disability Team (CIDT) or Increasing Access to Psychological Therapies (IAPT) service (for the non-clinical group).

ID status was determined by access criteria for services which acted as recruitment sources, and the clinical judgement of the researcher. A clinical group (*n* = 11) was derived by recruiting individuals experiencing psychological distress who had been referred to NHS services for PWID for psychological therapy, and a non-clinical group (*n* = 13) was derived by recruiting individuals who were members of advocacy groups for PWID. A total of 25 participants were recruited. One participant from the clinical group started but was unable to complete the measures due to emotional distress impacting capacity. This participant’s data was excluded from the study. One participant from an advocacy group disclosed having accessed therapy after all measures had been administered. A decision was made to retain the data from this participant, and to include it in the clinical group for the purpose of analysis. Further consideration of this issue is addressed in the discussion section.

Recruitment

Participants were recruited from advocacy groups in the North West of England, and psychology services in CIDT in Pennine Care NHS Foundation Trust, Mersey Care NHS Foundation Trust, and Cheshire and Wirral Partnership NHS Foundation Trust. Information about the study was provided to service managers and information sheets disseminated. Potential participants were informed of the research by the service they were accessing and provided with accessible information about the study (see Appendix 12). Those interested in participating gave consent for their details to be passed to the researcher, who then met with them to provide further information on what the study would involve. In order to derive the non-clinical group, individuals from advocacy groups were asked if they had ever received/were currently receiving psychological therapy, and if responded positively were excluded from the study and reasons for this were explained verbally. Eligible individuals were given a minimum of one week to consider if they wished to provide consent (see Appendix 13 for consent form) to participate in the research.

Consent

In line with the Mental Capacity Act (Department of Health, 2005), participants were required to understand the information about the study, retain it for long enough to weigh it up and decide whether to take part, and communicate their decision free from other’s influence. Anyone (e.g., family members, support staff, NHS professionals) involved in the individual’s care who had concerns about capacity was invited to raise them with the researcher verbally. The researcher then explained the research process to the person who had stated concerns. If following this the person did not think the individual had capacity to participate in the study, the individual was deemed not eligible. If any concerns relating to an individual’s capacity arose during the course of the study, they were withdrawn and their data not used in the final analysis. This was the case for one participant.

Procedure

Once eligible individuals had been given a week to decide if they wished to provide consent to participate, they were contacted by the researcher. For those who wished to provide consent to participate, an appointment was made to meet with the researcher to complete the measures listed below. Participants were assessed in a private room on NHS premises or the base of the service through which they were recruited. For a small number of participants for whom these venues were not convenient, a mutually agreeable venue affording privacy was used, namely their home. Following completion of consent procedures, a demographic questionnaire was administered. This was followed by administration of the paper-based measures described below. Completion of the measures took an average of 60 minutes per participant.

Measures

Demographic questionnaire

Demographics and characteristics of participants (e.g., age, gender, ethnicity, living conditions) were collected via a questionnaire (see Appendix 14) developed for the purposes of this study. This data was collected in order to ascertain whether the sample was representative of the population of PWID regarding factors evidenced to be related to attachment.

The Adult Attachment Projective Picture System (AAP; George and West, 2012)

The AAP is a reliable and valid measure of adult attachment (George and West, 2001, 2012). Individuals are presented with seven line drawings of attachment scenes (e.g., a youth sitting alone on a bench, a man and woman facing each other with suitcases positioned nearby; see Appendices 15 and 16 respectively), and asked to tell a story about what is happening, what led up to the scene, what the characters are thinking or feeling, and what might happen next. Responses are audio recorded and transcribed. A certified AAP judge analyses the transcript in relation to story content and presence of defensive processes in order to classify the transcript into one of four attachment groups (secure, dismissing, preoccupied, or unresolved). Unresolved classifications are typified by an individual's inability to resolve segregated systems material in their stories (George and West, 2001). However, the defensive processes employed may be similar to those seen in the three other attachment groups, and so unresolved classifications are superimposed on to an underlying attachment pattern of secure, dismissing or preoccupied.

All AAP interviews were coded and classified blind by a certified AAP judge. A proportion of the interviews were also coded blind by a second certified AAP judge (who was also a master coder). The first and second AAP coders agreed on overall classifications for 12/14 (85.7%) of the cases they both coded. The two cases where there was not initial agreement were resolved quickly by consensus to agree an overall classification.

Psychological Therapies Outcome Scale – Intellectual Disabilities, 2nd Edition (PTOS-ID II; Vlissides et al., 2017)

The PTOS-ID II (see Appendix 17) measures psychological distress (anxiety, anger, depression) and positive well-being (inter-personal well-being and psychological well-being) in PWID. It consists of 29 items rated on a four-point Likert scale ranging from *"not at all"* to *"a lot"*. Example items from the psychological distress index include "Have you felt like hitting someone?", and "Have you felt sad?". Example items from the positive well-being index include "Have you felt happy?" and "Have you felt people love or care about you?". An average score per index is generated, with higher scores on the psychological distress index indicating greater psychological distress, and higher scores on the positive well-being index indicating greater positive well-being. There are no clinical cut-offs.

The Inventory of Interpersonal Problems (IIP-32; Horowitz et al., 2000)

The IIP-32 (see Appendix 18) is a measure of interpersonal difficulties. Originally developed and validated for use in the typically developing population (Horowitz *et al.*, 2000), it has been shown to maintain many of its psychometric properties when used with PWID (Kellett *et al.,* 2005). It consists of 32 items rated on a five-point Likert scale, and contains interpersonal skills that people find "hard to do" (e.g., "understand another person's point of view") or "do too much" (e.g., "tell personal things to other people"). An average overall score and eight sub-scale scores can be generated when used with the typically developing population. Higher average overall scores indicate greater interpersonal difficulties. Current evidence suggests that the overall score is useable when employed with PWID (Kellet *et al.*, 2005).

Statistical Analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS) version 25. Variable distributions were screened using the Shapiro-Wilk test owing to the small sample size. Parametric tests were used when analysing normally distributed data, and non-parametric tests were used when data skewed from a normal distribution. Welch's t-test, Chi-

Square tests and Mann-Whitney U tests were used to examine differences between groups. An alpha level of .05 was used to interpret the results.

Results

Demographical Data

Sample demographics and characteristics are presented in Table I. These data were analysed to check for any significant differences between the clinical and non-clinical groups. There was a significant difference between the two groups with regards to age [$t(22) = -4.09$, $p < .001$], looked after child status [χ^2 (1, $N = 24$) = 4.11, $p = .043$], and involvement with additional services [χ^2 (1, $N = 24$) = 5.37, $p = .020$]. These differences were not accounted for in the data analyses which follow, owing to the small sample size increasing the likelihood of a weakened model if too many predictors were included.

	Clinical (*n* = 11)	**Non-clinical (*n* = 13)**	**Total (*n* = 24)**
Gender (number, %)			
Male	5 (45.5)	8 (61.5)	13 (54.2)
Female	6 (54.5)	5 (38.5)	11 (45.8)
Age (M, SD) in years	32.2 (10.0)	51.2 (12.3)	42.5 (14.7)
Ethnicity/Race (number, %)			
White	11 (100)	12 (92.3)	23 (95.8)
Black	0 (0)	1 (7.7)	1 (4.2)
Living (number, %)			
On own	0 (0)	6 (46.2)	6 (25.0)
With family	3 (27.3)	5 (38.5)	8 (33.3)
Residential care	1 (9.1)	0 (0)	1 (4.2)
Supported housing alone	3 (27.3)	1 (7.7)	4 (16.7)
Supported housing with others	3 (27.3)	0 (0)	3 (12.5)
Shared Lives	1 (9.1)	1 (7.7)	2 (8.3)
Medical conditions (number, %)			
Yes	10 (90.9)	9 (69.2)	19 (79.2)
No	1 (9.1)	4 (30.8)	5 (20.8)

Looked after child (number, %)			
Yes	6 (54.5)	2 (15.4)	8 (33.3)
No	5 (45.5)	11 (84.6)	16 (66.7)
Involvement with services other than that from which they were recruited (number, %)			
Yes	10 (90.9)	6 (46.2)	16 (66.7)
No	1 (9.1)	7 (53.8)	8 (33.3)

Table I. Sample Demographics and Characteristics

Research Questions

1. Is the frequency of attachment status categories (secure versus insecure) different between clinical and non-clinical groups of PWID?

Table II shows the frequency of attachment status categories across clinical and non-clinical groups. All participants were classified as having an insecure attachment. The lack of secure attachment values in either group precluded any statistical analysis.

	Clinical (*n* = 11)	**Non-clinical (*n* = 13)**
Secure	0	0
Insecure	11	13

Table II. Secure/Insecure Attachment Status Categories as Measured by the AAP.

2. Is the frequency of resolved attachment status categories (resolved versus unresolved) different between clinical and non-clinical groups of PWID?

Table III shows the frequency of resolved and unresolved attachment status categories across clinical and non-clinical groups. There was no significant difference in the frequency of resolved versus unresolved categories between clinical and non-clinical groups [χ^2 (1, *N* = 24) = 0.34, *p* = .562].

	Clinical (*n* = 11)	**Non-clinical (*n* = 13)**
Resolved	3	5
Unresolved	8	8

Table III. Resolved/Unresolved Attachment Status Categories as Measured by the AAP.

For the following questions, data were analysed by resolved versus unresolved grouping. Data relating to sample demographics and characteristics were checked for any significant differences between the resolved and unresolved groups. There was a significant difference between the groups with regards to gender [χ^2 (1, *N* = 24) = 8.39, *p* = .004]. As with differences between clinical and non-clinical groups, this difference was not accounted for in the data analyses which follow, owing to the small sample size increasing the likelihood of a weakened model if too many predictors were included.

3. Is the level of psychological distress different between resolved and unresolved groups of PWID?

Table IV shows mean psychological distress score for resolved and unresolved groups. There was no difference in psychological distress between resolved and unresolved groups [*t* (18.87) = -0.88, *p* = .392].

	Resolved (*n* = 8)	**Unresolved (*n* = 16)**
Psychological distress score (M, SD)	0.9 (0.6)	1.1 (0.8)

Table IV. Psychological Distress as Measured by the PTOS-ID II.

4. Is the level of positive well-being different between resolved and unresolved groups of PWID?

Table V shows median positive well-being score for resolved and unresolved groups. There was no significant difference in positive well-being between the resolved and unresolved groups (*U* = 55.5, *p* = .600).

	Resolved (*n* = 8)	**Unresolved (*n* = 16)**
Positive well-being score (Mdn, Range)	2.6 (1.5)	2.5 (2.0)

Table V. Positive Well-Being as Measured by the PTOS-ID II.

5. Is the level of interpersonal functioning different between resolved and unresolved groups of PWID?

Table VI shows median interpersonal functioning score for resolved and unresolved groups. There was no significant difference in interpersonal functioning between the resolved and unresolved groups (*U* = 53.0, *p* = .498)

	Resolved (*n* = 8)	**Unresolved (*n* = 16)**
Interpersonal functioning score (Mdn, Range)	1.0 (1.8)	0.8 (3.2)

Table VI. Interpersonal Functioning as Measured by the IIP-32.

Discussion

This study addressed a gap in the attachment and PWID literature by examining attachment security and resolution in clinical and non-clinical groups, and psychological health and interpersonal functioning in resolved and unresolved individuals. No differences were found between either of the groups examined.

Despite Gallichan and George (2014, 2018) finding a similar pattern, the fact that no participants were classified as securely attached on the AAP was an unexpected result. Gallichan and George's (2014, 2018) results could be hypothesised to relate to their use of NHS samples, where whilst not all referred for psychological intervention, an extensive proportion of individuals experienced psychological distress or were referred in relation to relationship-based difficulties. Data from the typically developing population would suggest that such individuals are more likely to be insecurely attached (Bakermans-Kranenburg and Van IJzendorn, 2009). In this study, it was hypothesised that some individuals, likely in the non-clinical group, would be securely attached. This again was based on findings in the typically developing population where, even in small samples, there is a higher incidence of secure attachment in non-clinical groups compared to clinical groups (Bakermans-Kranenburg and Van IJzendorn, 2009).

One possible explanation for the finding in this study is that early attachment relationships for PWID are subject to a number of additional influences over and above that of the typically developing population. These influences may impact development of secure attachment relationships, meaning that incidence of insecure attachment, even in non-clinical groups, is higher than that seen in the typically developing population. Given that development of 'goal-corrected partnerships' between parent and child emerge in line with language acquisition and theory of mind development (Fletcher and Gallichan, 2016); it is possible that deficits in these areas may influence successful creation and maintenance of such 'partnerships' for PWID. Additionally, one influence of particular importance in relation to the development of

IWM, and therefore attachment as it is assessed in this study, is parental grief. The high incidence of insecure attachment representations found here could be a result of carers' models failing to update in line with the individual's actual rather than perceived abilities, which subsequently impacted attuned responding and the individual's sense of self as worthwhile, and others and the world as safe and protective. In relation to this, a further influence may be that of the wider held societal stigma which PWID continue to experience (Gordon *et al.*, 2004; Nagata, 2007). Exposure to such stigma may impact both the carer's and individual's sense of self-worth and safety of the world, which in turn could affect development of aforementioned 'goal corrected partnerships'. This stigma may explain the much higher incidence of individuals (33.3%) who had been looked after children compared to the typically developing population (where rates are approximately 2%; Teyhan *et al.*, 2018), suggesting greater potential rates of attachment-trauma; another possible explanation for the findings on insecure attachment. Alternatively, it could be that insecure individuals are more likely to have an interest in attachment-related difficulties, and so be more likely to volunteer for attachment-related research leading to inflated incidences, a process that has been hypothesised to be present in other areas of attachment research (Buchheim *et al.*, 2008).

With respect to the second hypothesis, there was no significant difference in the frequency of resolved versus unresolved categories between clinical and non-clinical groups. Findings from a large number of studies in the typically developing population evidence that incidence of unresolved classifications in non-clinical subjects is approximately 16% (Bakermans-Kranenburg and Van IJzendorn, 2009). Whilst the small sample here makes extrapolation of findings difficult, 62% of non-clinical participants were classified as unresolved, substantially more than that documented outside of the ID population, and similar to that found by

Gallichan and George (2018). The percentage prevalence in the non-clinical group is only ten percent less than the incidence of unresolved attachment in the clinical group, a finding which again is substantially higher than that seen outside of the ID population, where when calculated across varying clinical presentations, incidence is approximately 38% (Bakermans-Kranenburg and Van IJzendorn, 2009).

One such explanation for the high incidence of unresolved classifications across the sample relates to experience specific to the lives of PWID. PWID are at increased risk of experiencing traumatic events (McCarthy, 2001; Sulivan and Kunston, 2000), owing to a number of factors including reliance on (often multiple) caregivers, limitations in communication, reduced sexual knowledge, and difficulties disclosing traumatic incidents (McGee *et al.*, 2002). Given that unresolved attachment is linked to experience of trauma (Main and Hesse, 1990), a high incidence of unresolved classifications across the sample would seem not to be surprising.

The high incidence of unresolved classifications in both arms of the sample raises questions as to what, if anything, is the difference between the two groups so that one accesses therapeutic intervention where the other does not. The first potential explanation relates to the definitions of ‘clinical’ and ‘non-clinical’ applied in this study. For the purposes of this study, the clinical group were defined as individuals who had come into contact with services following a referral for psychological intervention, where the non-clinical group were members of advocacy groups who denied having had any current or previous involvement from psychological services. It may be that there are factors in the lives of advocacy group members which lead them to seek out such a role, making them a distinct group from PWID who have no contact with services at all. It would therefore be interesting to compare IWM of attachment in a clinical group, with individuals who have no or very little contact with any services at all. Another more simple explanation is that, as there is no difference between the groups in terms of attachment resolution, referrals for support from clinical services may simply reduce to whether people notice an individual's difficulties to enough of a degree and for a long enough time for referral to seem warranted. Whilst a simple conceptualisation in some respects, such a potential explanation is profound given that PWID typically do not self-refer (Hassiotis *et al.*, 2014), and as a population remain unseen and invisible to society. It should be noted however, that this is one possible explanation for referral differences, and referrals could be independent from attachment classification and dependent on a range of other factors (e.g., the nature and degree of the presenting difficulty, individuals' readiness for change, beliefs about symptom causation).

Additional factors which may explain the difference between the clinical and non-clinical groups are those that were found to be statistically significant; namely age, and looked after child status. First, with regards to age, the non-clinical group were statistically significantly older than the clinical group, and a number of factors may explain why, despite the incidence of unresolved attachment, this group had not been referred for psychological support. The notion that PWID can or need to access psychological therapy is still relatively new. As recently as thirty years ago, PWID were thought not to experience psychological distress (Matson *et al.*, 2012), and more recently still, there was a perception that cognitive abilities prevented PWID from being able to engage in psychotherapy (Westerhof *et al.*, 2016). These views likely meant that the older individuals in the sample were not referred for such intervention. Narratives regarding established behaviours or ways of relating may be held by the system supporting the individual in the present, with notions of older individuals 'always having' presented in a certain way, meaning that referral might not be considered. Notions of reticence to ‘open up’ something that may be distressing for the individual and the system around them to manage may also be present, particularly if the event occurred in the relatively distant past, again meaning that referral may not be considered. Additionally, in Crittenden’s (2006) Dynamic Maturational Model (DMM) of attachment, both experience and developmental maturation are thought to influence attachment strategies long into adulthood, suggesting that the strategies employed by the older individuals in the sample may be more adaptive than those who are younger. This in turn may affect psychological health and requirement for intervention from services. Second, with regards to looked after child status, the clinical group were statistically significantly more likely to have been a looked after child than the non-clinical group. This may mean that they had more contact with services, and therefore the aforementioned notion of those supporting the individual noticing and referring may have been more likely for this group. Additionally, looked after children are more likely to have been exposed to trauma including neglect and abuse, and for these experiences to have been prolonged in nature (Denton *et al.*, 2016). The cumulative effects of frequent traumatic events are associated with challenging behaviour, psychological distress, and difficulties forming and maintaining relationships with others into adulthood (Finklehor, *et al.*, 2011); another potential reason for higher rates of referral.

Hypotheses three, four and five were also not supported, with analyses indicating no significant differences between resolved and unresolved groups with regards to psychological distress, positive well-being or interpersonal functioning. Such findings are in contrast to those in the typically developing population (Juen *et al.*, 2013; Creasey, 2002; Creasey and Ladd, 2005). Whilst the small sample size makes any conclusions difficult, one possible explanation for the finding is that no such relationship exists for the PWID population. Alternatively, the relationship may not be as linear as proposed, and the measures employed may therefore not have been able to identify any relationship should one exist. Average scores across the sample for hypotheses three, four and five were relatively low, possibly related to the self-repot nature of the measures used. PWID can have a tendency to acquiesce (Clare and Gudjonsson, 1995), and this, coupled with social desirability effects and aforementioned narratives relating to how PWID ‘should’ feel may have impacted their responses. In regards to interpersonal functioning, research in the typically developing population has shown that whilst unresolved individuals do not self-report interpersonal difficulties, they may be apparent when observational methods are employed (Busch *et al.*, 2008). This may also explain the low average scores on the IIP-32 across the sample, as well as the lack of significant difference between the groups.

There was, however, a difference between resolved and unresolved groups with regards to gender. Researchers have postulated that adult attachment may develop in gender-specific ways such that males lean towards a dismissing perspective on attachment experiences, and females express preoccupation with those experiences (Brennan *et al.*, 1998). Such hypotheses have not been corroborated, with evidence from the largest analysis of Adult Attachment Interviews finding no gender differences in use of dismissing or preoccupied strategies (Bakermans-Kranenburg and Van IJzendoorn, 2009). Evidence to date is lacking with regards to gender differences in attachment resolution, and as such, further research is required in order to establish whether the finding in this study is replicated. A simple explanation may be that differences in overall participant numbers between the two groups resulted in the gender difference.

Strengths and Limitations

To our knowledge, this study is one of only three (others being Gallichan and George, 2014, 2018) to examine the IWM of PWID in regards to attachment, and the first to compare IWM of clinical and non-clinical samples. It is also the first to delineate and compare resolved versus unresolved attachment in PWID.

The most significant limitation of the study was sample size. Not being able to approach potential participants directly meant that services had to deem the study appropriate and hold it in mind to tell the individual. This sometimes resulted in the system surrounding the person making decisions about whether it was appropriate for them to participate. In these cases, collaborative discussions were held to prevent eligible individuals not being able to participate, however, it is possible that these factors impacted the numbers recruited. For further details, please see Appendix 19.

The above highlighted recruitment challenges likely meant that not all potential participants were approached, which could have introduced bias into the sample. Services may have been more likely to share the study information with those whom they deemed likely to want to participate, to those for whom they felt attachment difficulties were a pertinent feature of their presentation, or to those whom they perceived to be psychologically resilient and thereby less at risk of potential attachment-related distress. Lack of diagnostic assessment to determine the level of participants’ ID, the nature of the measures used, and the requirement for participants to have capacity to consent, meant that the sample was also likely biased in being primarily comprised of individuals with a mild-moderate ID. These factors all impact the ability to extrapolate the findings.

Whilst the sample size is comparable with other studies in the area (Fulton, 2013; Rogers *et al.*, 1991; Sterkenburg *et al.*, 2008; Powney, 2014), the small *n* meant that non-parametric tests were employed during statistical analyses. Use of such conservative tests (Nahm, 2016) along with reduced power owing to small sample sizes (Button *et al.*, 2013) can increase the risk of Type II errors (Ogee *et al.*, 2016), a possible explanation for the lack of significant results found in the study. A larger sample size would have increased statistical power, which would have permitted analyses controlling for variables (e.g., age in the case of clinical versus non-clinical comparisons, and gender in the case of resolved versus unresolved comparisons) which were significantly different between groups. In order not to weaken the models, this was not possible in the present study.

Limitations of the measures employed should be considered. Whilst the AAP has widely demonstrated reliability and validity in the typically developing population (George and West, 2012), work regarding its applicability and utility in relation to assessing attachment in PWID is in its infancy. Work to date suggests the potential of the measure in terms of reliability, validity, and clinical utility (Gallichan and George, 2014, 2018), however, it is possible that the lack of attachment security in studies using the AAP with PWID could be related to the nature of the measure itself and its coding. A hypothesis that the AAP may not be a valid measure of attachment in PWID should therefore be held in mind when interpreting the results of this study. Additionally, although the IIP-32 has been found to retain its psychometric properties when used in an assisted completion format with PWID (Kellett *et al.*, 2005), most participants required a degree of support to complete it over and above that required for other measures. This was often owing to the language used in the items, the need to differentiate responses across a five-point Likert scale, and the requirement for abstract reflection in relation to self and others. It is therefore possible that participants' cognitive abilities impacted the responses given.

Additionally, as highlighted earlier, data from one participant recruited from an advocacy group were carried over and included in the clinical sample for the purpose of analyses. Once the participant disclosed having accessed therapy, the time period was established by the researcher. As the therapy had been accessed within the last year, a decision was made to retain the data and move it to the clinical group rather than discount it from analysis. Whilst the recent time of access may be suggestive of recent psychological distress, it could also be argued that this participant had greater time to consolidate therapeutic gains than the other participants in the clinical group. This could have affected their responses on the measures.

Finally, consideration should also be given to the underlying assumptions of attachment theory and the positivist research instruments employed in its measurement. It has been argued that attachment theory presents a narrow view of care-giving relationships by virtue of its focus on the mother-child relationship, and the situation of potential problems as within that relationship (Contratto, 2002). It has been further argued that such a process can be seen to be pathologising, and that social identities of ethnicity, culture, and class are neglected in ascribing attachment classifications through an Anglo-centric lens (Buchanan, 2013). Outside of the Western-world, care-giving is often viewed as being undertaken by the wider family or community, meaning that further work is required in order to establish whether some of the assumptions held by attachment theory are also true for other ethnic and cultural groups. It has also been suggested that some adult measures of attachment do not consider lived experiences such as the social identities that form and reform over the lifespan in response to injustice (Campbell and Baikie, 2012); something which may be of particular pertinence for PWID given the aforementioned high rates of stigma and prejudice they experience.

Implications for Future Research and Practice

Whilst use of larger sample sizes would no doubt be beneficial in increasing statistical power and helping address possible inflated effect sizes, it is important to recognise that there remain many challenges to recruiting PWID to participate in research. This is evidenced by sample sizes in other studies in the area (Fulton, 2013; Rogers *et al.*, 1991; Sterkenberg *et al.*, 2008; Powney, 2014) being similar to the one recruited for the present study. Whilst contested (Gilbert *et al.*, 2016), a paper by the Open Science Collaboration (2015) highlighted the challenges of replicating findings in psychological research, and Button *et al.* (2013) suggest a range of measures to improve research practices in areas of low power, all of which could help the replicability of clinical psychology research (Chapman *et al.*, 2018). They include conducting power calculations a priori, and explicitly stating sample size and any data exclusions or manipulations. Given that small sample sizes are often inherent in research with PWID, uptake of the measures would aide replicability of findings in the attachment and PWID literature, which would help establish the certainty of findings to date. Such confirmation of the current evidence base is crucial in establishing areas for future research focus.

In relation to strengthening support for findings to date, further testing of the AAP’s psychometric properties when used with PWID is required. This would include the devising of concurrent measures of attachment in order to establish whether the lack of attachment security is inherent to the PWID population, or to the use of the AAP with such individuals.

Following this, AAP research with a larger sample would be beneficial in establishing incidence of insecure subtypes. The sample size in the present study precluded this.

Future research would also benefit from clarifying the level of participants' ID, as questions remain relating to if and how attachment may present differently in those with mild-moderate versus severe-profound ID (BPS, 2017); this would be an important next step in establishing how IWM present, and their incidence across the range of ID levels. Further, given that two thirds of the sample were classified as unresolved and such classification is related to experience of trauma in the typically developing population (Main and Hesse, 1990), research would benefit from examining whether trauma and attachment classification are linked in the ID population. Such work is of particular importance given the higher incidence of trauma experienced by PWID (Sullivan and Knutson, 2000; McCarthy, 2001). Finally, the AAP permits examination and assessment of a range of processes related to IWM, one of these being 'agency of self'. This relates to an individual's capacity to use internal (e.g., draw on IWM of the caregiver) or external resources (e.g., seeking an attachment figure) to manage threat in situations in which they are physically alone (George, 2003). Given the number of unresolved classifications in this study and the fact that unresolved presentations are hypothesised to be underpinned by reduced capacity to be alone (Juen *et al.*, 2013), further consideration of this aspect of the AAP would benefit from consideration in its own right. Such work has been conducted in the typically developing population, where absence of agency of self (i.e., difficulty using relationships or exploring one's own IWM to re-establish attachment equilibrium) has been linked to depression and dysthymia (West and George, 2002) in congruence with Bowlby's (1980) theory relating psychological health to the ability to consciously evaluate and organise attachment-related experiences.

High staff turnover and low staff-to-service user ratios are not uncommon in ID support services (Buntinx, 2008). Such conditions do not facilitate development of optimal attachment relationships (DeSchipper and Schuengel, 2010), and this has mainly been considered in relation to clinical groups of PWID. Whilst based on small numbers, the incidence of insecure and unresolved attachment in the non-clinical group in this study suggests that broader consideration of interpersonal environments for all PWID is warranted. This may involve considering the potential impact of lost relationships, day-to-day interactions, and transitions in settings such as advocacy groups from which the non-clinical sample were recruited, or in day centres or other community projects often accessed by PWID. Whilst such activities and services may have less of a focus on addressing and meeting clinical need, they often provided social connections in the otherwise lonesome lives of PWID (Duvdevany and Arar, 2004), something which cannot be underestimated when using an attachment framework to consider individuals' wellbeing. Emerging evidence suggests that attachment based interventions of both direct (i.e., working therapeutically with the individual; Sterkenburg *et al.*, 2008) and systemic (training for those supporting PWID; Damen *et al.*, 2011) natures may be effective in this cause. Indeed, the fact that Bowlby's (1969/1982) theory suggests there is scope for models to be revised and updated even into adulthood, means that the importance of such intervention, particularly given the rates of insecure attachment demonstrated in this study, should not be minimised.

Whilst this study focused on attachment representations in adulthood, the relevance of attachment across the life course (Bowlby, 1969/1982) means that some tentative implications for practice in relation to the early lives of PWID can also be considered. Again, although based on small numbers, the predominance of insecure attachment representations across the groups suggests difficulties in early attachment relationships in line with Bowlby's

(1969/1982) theory. Such difficulties could be reasonably hypothesised to be due to caregivers failing to update their IWM of their child's abilities. This would suggest the importance of supporting families with a child with ID through the grief process, so that their IWM update in line with their child's development (Fletcher and Gallichan, 2016). This, in turn, would facilitate more attuned responses and support the child to develop a view of themselves as worthy and acceptable.

Consideration of PWID's sense of self as worthy and acceptable should not only be considered at an individual level, but a societal one. PWID continue to be identified as one of the least acceptable groups in society (Gordon *et al.*, 2004; Nagata, 2007), and often experience stigma and prejudice that act to restrict their human rights (European Union Monitoring and Advocacy Program, 2005). As described earlier, prejudicial views may have impacted the number of individuals recruited, highlighting the need for ID awareness training in both clinical and non-clinical settings, and for the wider general population as a whole. The recruitment experiences encountered in this study also have implications for the research policies and processes employed within services; and the aforementioned barriers to PWID participating in this study are being disseminated in services in order to support change. Until such time as PWID are viewed at a societal level as worthy and acceptable, the potential risks to their attachment relationships remain.

Conclusions

Current findings indicate that there may be higher than expected rates of both insecure and unresolved attachment in PWID. Given that this was the finding across both clinical and non-clinical groups, consideration of interpersonal environment and attachment-based interventions for PWID across a range of settings may be warranted. The study did not provide evidence of a relationship between unresolved attachment and psychological distress or interpersonal functioning difficulties. Methodological limitations included small sample size, and the requirement for further work regarding the reliability and validity of the attachment measure used. Further work in the small but growing research area of attachment in PWID is required, in order to consolidate the current evidence base and identify areas of future focus.

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Appendices

Appendix 1: Author Guidelines for the Journal of Intellectual and Developmental Disability

About the journal

Journal of Intellectual & Developmental Disability is an international, peer reviewed journal, publishing high-quality, original research. Please see the journal's Aims & Scope for information about its focus and peer-review policy.

Please note that this journal only publishes manuscripts in English.

Word limits

Please include a word count for your paper.

- A typical Original Article for this journal should be no more than 8000 words; this limit includes Abstract, Endnotes, Tables, Figures, Figure captions or legends, References, Acknowledgements, Appendices.
- A typical Brief Report for this journal should be no more than 3000 words; this limit includes Abstract, Endnotes, Tables, Figures, Figure captions or legends, References, Acknowledgements, Appendices.
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- A typical Literature Review for this journal should be no more than 7000 words; this limit includes Abstract, Endnotes, Tables, Figures, Figure captions or legends, References, Acknowledgements, Appendices.
- A typical Conceptual Paper for this journal should be no more than 2000 words; this limit includes Abstract, Endnotes, Tables, Figures, Figure captions or legends, References, Acknowledgements, Appendices.
- A typical Case Report for this journal should be no more than 3000 words; this limit includes Abstract, Endnotes, Tables, Figures, Figure captions or legends, References, Acknowledgements, Appendices.

Style guidelines

Authors should prepare manuscripts according to the Publication Manual of the American Psychological Association (7th ed.), except that Macquarie spelling should be used.
Please use Australian spelling style consistently throughout your manuscript.

Please use double quotation marks, except where "a quotation is 'within' a quotation". Please note that long quotations should be indented without quotation marks.

Formatting and templates

Papers may be submitted in any standard format, including Word and LaTex. Figures should be saved separately from the text. To assist you in preparing your paper, we provide formatting templates.Word templates are available for this journal. Please save the template to your hard drive, ready for use. A LaTeX template is available for this journal. If you are not able to use the templates via the links (or if you have any other template queries) please contact us here.

References
Please use this reference style guide when preparing your paper. An EndNote output style is also available to assist you. Please check here for differences between APA-6 and APA-7.

Checklist: what to include
1. *Author details.* All authors of a manuscript should include their full names and affiliation on the cover page of the manuscript. Where available, please also include ORCID identifiers and social media handles (Facebook, Twitter or LinkedIn). One author will need to be identified as the corresponding author, with their email address normally displayed in the article PDF (depending on the journal) and the online article. Authors' affiliations are the affiliations where the research was conducted. If any of the named co-authors moves affiliation during the peer-review process, the new affiliation can be given as a footnote. Please note that no changes to affiliation can be made after your paper is accepted. Read more on authorship.
2. *A structured abstract* of no more than 150 words with the following subheadings: Background, Method, Results, Conclusions. These subsections should outline the questions investigated, the design, essential findings, and main conclusions of the study. Read tips on writing your abstract.
3. You can *opt to include a video abstract* with your article. Find out how these can help your work reach a wider audience, and what to think about when filming.
4. Each manuscript should have *3 to 6 keywords*. Read making your article more discoverable, including information on choosing a title and search engine optimization.
5. *Funding details.* Please supply all details required by your funding and grant-awarding bodies as follows:
- For single agency grants: This work was supported by the [Funding Agency] under Grant [number xxxx].
- For multiple agency grants: This work was supported by the [funding Agency 1]; under Grant [number xxxx]; [Funding Agency 2] under Grant [number xxxx]; and [Funding Agency 3] under Grant [number xxxx].

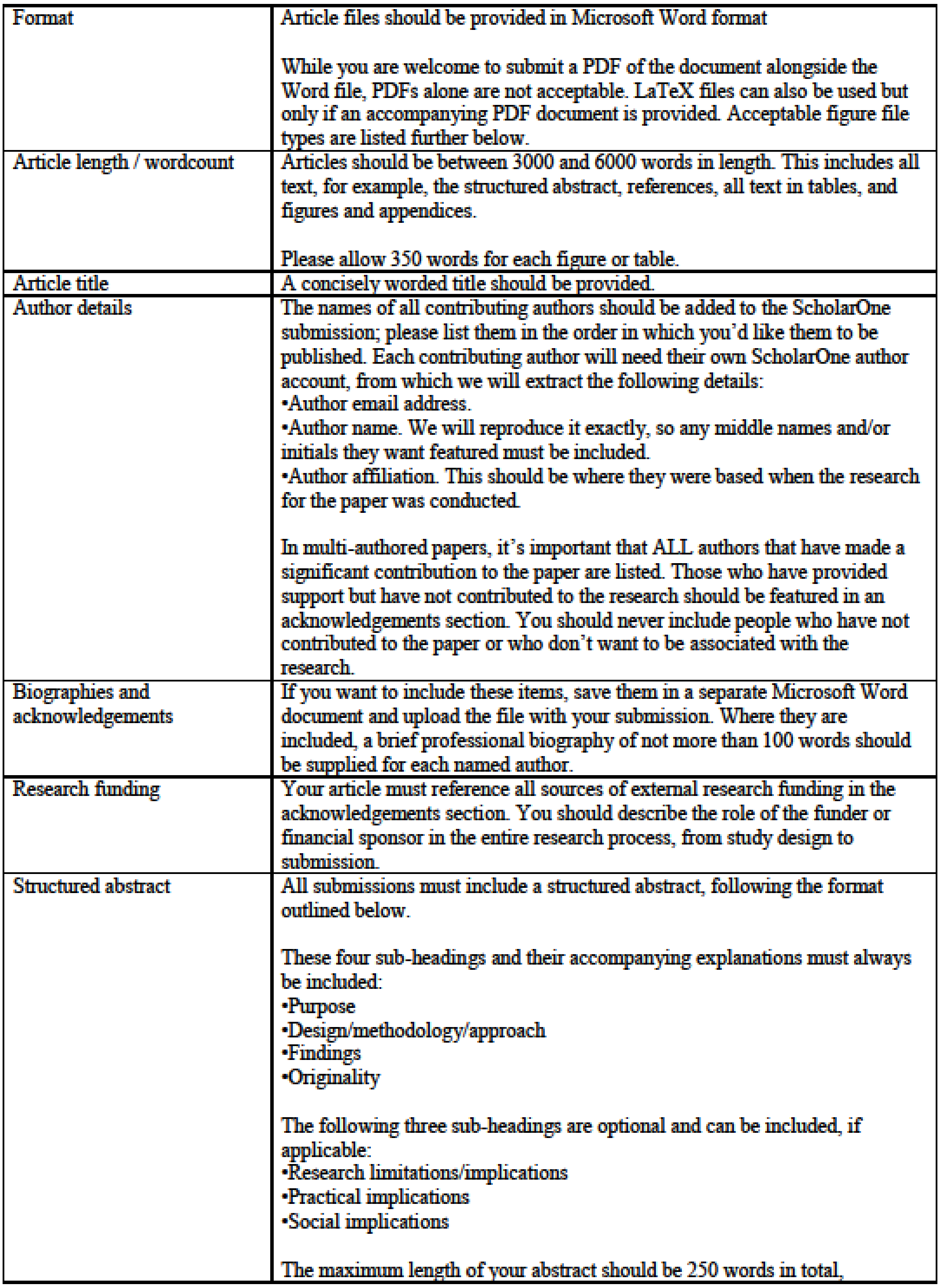
6. *Disclosure statement.* This is to acknowledge any financial interest or benefit that has arisen from the direct applications of your research. Further guidance on what is a conflict of interest and how to disclose it.
7. *Data availability statement.* If there is a data set associated with the paper, please provide information about where the data supporting the results or analyses presented in the paper can be found. Where applicable, this should include the hyperlink, DOI or other persistent identifier associated with the data set(s). Templates are also available to support authors.
8. *Data deposition.* If you choose to share or make the data underlying the study open, please deposit your data in a recognized data repository prior to or at the time of submission. You will be asked to provide the DOI, pre-reserved DOI, or other persistent identifier for the data set.
9. *Supplemental online material.* Supplemental material can be a video, dataset, fileset, sound file or anything which supports (and is pertinent to) your paper. We publish supplemental material online via Figshare. Find out more about supplemental material and how to submit it with your article.
10. *Figures.* Figures should be high quality (1200 dpi for line art, 600 dpi for grayscale and 300 dpi for color, at the correct size). Figures should be supplied in one of our preferred formats: EPS, PS, JPEG, GIF, or Microsoft Word (DOC or DOCX). For information relating to other file types, please consult our submission of electronic artwork document.

11. *Tables.* Tables should present new information rather than duplicating what is in the text. Readers should be able to interpret the table without reference to the text. Please supply editable files.
12. *Equations*. If you are submitting your manuscript as a Word document, please ensure that equations are editable. More information about mathematical symbols and equations.
13. *Units.* Please use SI units (non-italicized).
14. *Data sharing*: Authors of data-based articles should have their research data available for at least five years after publication. On request, these data should be shared with other competent professionals for reanalysis, solely for the purpose of verifying the published findings, provided that participants' confidentiality is protected and unless legal rights concerning proprietary data prevent their release. Where relevant, the specific computer program used for data analysis should be identified.

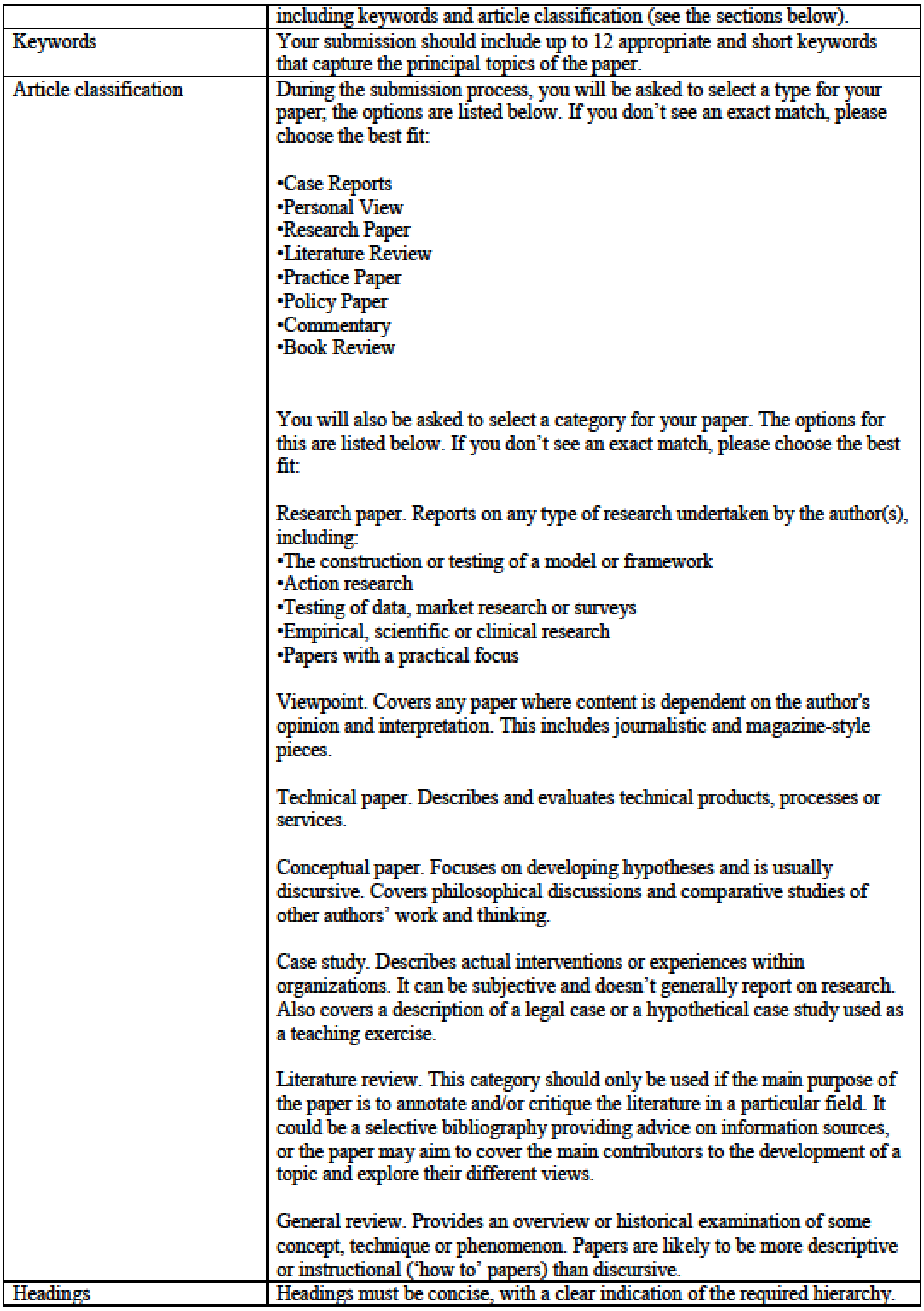
From:

https://www.tandfonline.com/action/authorSubmission?show=instructions&journalCode=cjid20

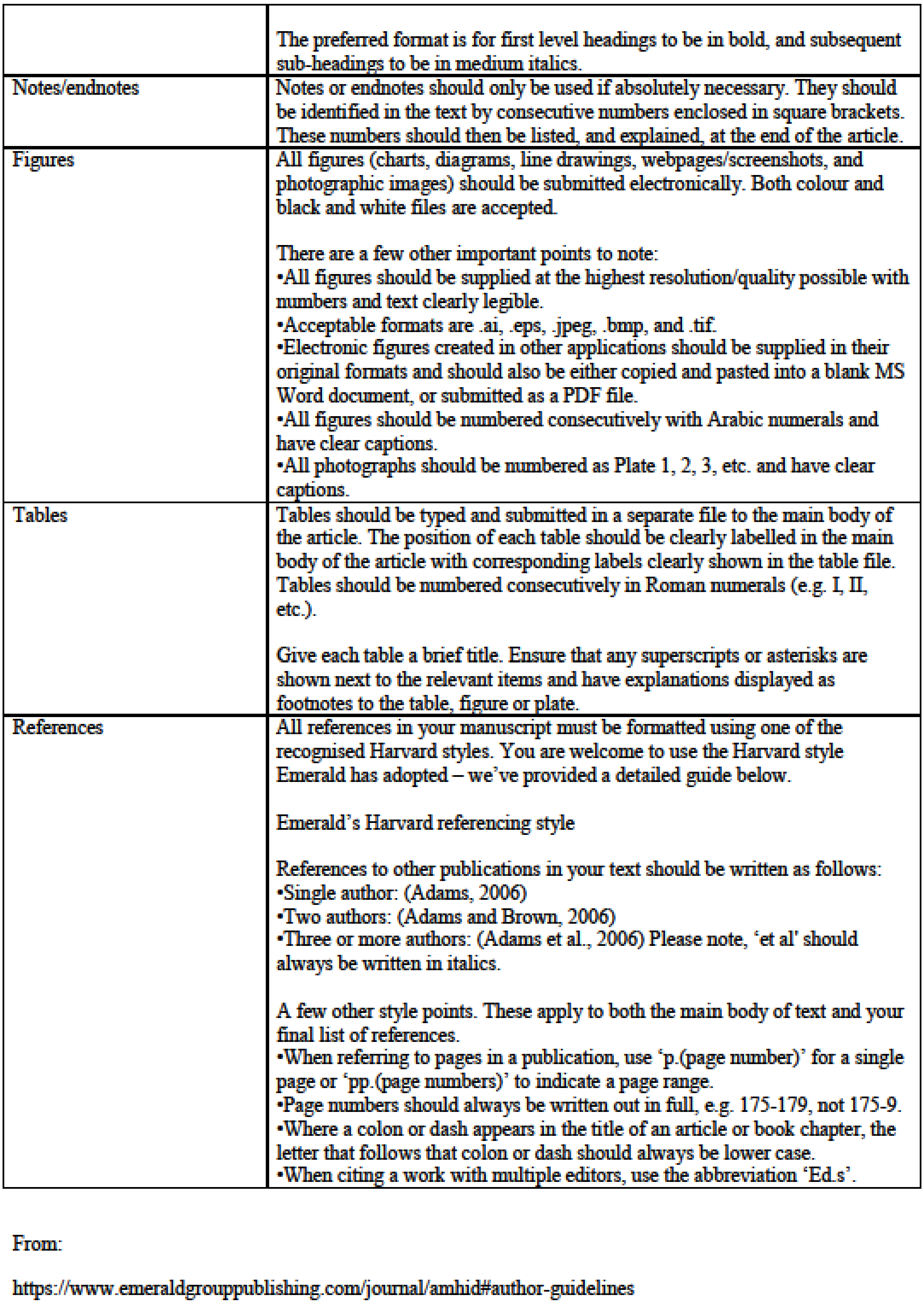
Appendix 2: Author Guidelines for Advances in Mental Health and Intellectual Disabilities



Format	Article files should be provided in Microsoft Word format While you are welcome to submit a PDF of the document alongside the Word file, PDFs alone are not acceptable. LaTeX files can also be used but only if an accompanying PDF document is provided. Acceptable figure file types are listed further below.
Article length / wordcount	Articles should be between 3000 and 6000 words in length. This includes all text, for example, the structured abstract, references, all text in tables, and figures and appendices. Please allow 350 words for each figure or table.
Article title	A concisely worded title should be provided.
Author details	The names of all contributing authors should be added to the ScholarOne submission; please list them in the order in which you'd like them to be published. Each contributing author will need their own ScholarOne author account, from which we will extract the following details: •Author email address. •Author name. We will reproduce it exactly, so any middle names and/or initials they want featured must be included. •Author affiliation. This should be where they were based when the research for the paper was conducted. In multi-authored papers, it's important that ALL authors that have made a significant contribution to the paper are listed. Those who have provided support but have not contributed to the research should be featured in an acknowledgements section. You should never include people who have not contributed to the paper or who don't want to be associated with the research.
Biographies and acknowledgements	If you want to include these items, save them in a separate Microsoft Word document and upload the file with your submission. Where they are included, a brief professional biography of not more than 100 words should be supplied for each named author.
Research funding	Your article must reference all sources of external research funding in the acknowledgements section. You should describe the role of the funder or financial sponsor in the entire research process, from study design to submission.
Structured abstract	All submissions must include a structured abstract, following the format outlined below. These four sub-headings and their accompanying explanations must always be included: •Purpose •Design/methodology/approach •Findings •Originality The following three sub-headings are optional and can be included, if applicable: •Research limitations/implications •Practical implications •Social implications The maximum length of your abstract should be 250 words in total,



	including keywords and article classification (see the sections below).
Keywords	Your submission should include up to 12 appropriate and short keywords that capture the principal topics of the paper.
Article classification	During the submission process, you will be asked to select a type for your paper; the options are listed below. If you don't see an exact match, please choose the best fit: •Case Reports •Personal View •Research Paper •Literature Review •Practice Paper •Policy Paper •Commentary •Book Review You will also be asked to select a category for your paper. The options for this are listed below. If you don't see an exact match, please choose the best fit: Research paper. Reports on any type of research undertaken by the author(s), including: •The construction or testing of a model or framework •Action research •Testing of data, market research or surveys •Empirical, scientific or clinical research •Papers with a practical focus Viewpoint. Covers any paper where content is dependent on the author's opinion and interpretation. This includes journalistic and magazine-style pieces. Technical paper. Describes and evaluates technical products, processes or services. Conceptual paper. Focuses on developing hypotheses and is usually discursive. Covers philosophical discussions and comparative studies of other authors' work and thinking. Case study. Describes actual interventions or experiences within organizations. It can be subjective and doesn't generally report on research. Also covers a description of a legal case or a hypothetical case study used as a teaching exercise. Literature review. This category should only be used if the main purpose of the paper is to annotate and/or critique the literature in a particular field. It could be a selective bibliography providing advice on information sources, or the paper may aim to cover the main contributors to the development of a topic and explore their different views. General review. Provides an overview or historical examination of some concept, technique or phenomenon. Papers are likely to be more descriptive or instructional ('how to' papers) than discursive.
Headings	Headings must be concise, with a clear indication of the required hierarchy.



	The preferred format is for first level headings to be in bold, and subsequent sub-headings to be in medium italics.
Notes/endnotes	Notes or endnotes should only be used if absolutely necessary. They should be identified in the text by consecutive numbers enclosed in square brackets. These numbers should then be listed, and explained, at the end of the article.
Figures	All figures (charts, diagrams, line drawings, webpages/screenshots, and photographic images) should be submitted electronically. Both colour and black and white files are accepted. There are a few other important points to note: •All figures should be supplied at the highest resolution/quality possible with numbers and text clearly legible. •Acceptable formats are .ai, .eps, .jpeg, .bmp, and .tif. •Electronic figures created in other applications should be supplied in their original formats and should also be either copied and pasted into a blank MS Word document, or submitted as a PDF file. •All figures should be numbered consecutively with Arabic numerals and have clear captions. •All photographs should be numbered as Plate 1, 2, 3, etc. and have clear captions.
Tables	Tables should be typed and submitted in a separate file to the main body of the article. The position of each table should be clearly labelled in the main body of the article with corresponding labels clearly shown in the table file. Tables should be numbered consecutively in Roman numerals (e.g. I, II, etc.). Give each table a brief title. Ensure that any superscripts or asterisks are shown next to the relevant items and have explanations displayed as footnotes to the table, figure or plate.
References	All references in your manuscript must be formatted using one of the recognised Harvard styles. You are welcome to use the Harvard style Emerald has adopted – we've provided a detailed guide below. Emerald's Harvard referencing style References to other publications in your text should be written as follows: •Single author: (Adams, 2006) •Two authors: (Adams and Brown, 2006) •Three or more authors: (Adams et al., 2006) Please note, 'et al' should always be written in italics. A few other style points. These apply to both the main body of text and your final list of references. •When referring to pages in a publication, use 'p.(page number)' for a single page or 'pp.(page numbers)' to indicate a page range. •Page numbers should always be written out in full, e.g. 175-179, not 175-9. •Where a colon or dash appears in the title of an article or book chapter, the letter that follows that colon or dash should always be lower case. •When citing a work with multiple editors, use the abbreviation 'Ed.s'.

From:

https://www.emeraldgrouppublishing.com/journal/amhid#author-guidelines

Appendix 3: Andresen Characteristics for Assessing the Tools of Disability Outcomes Research

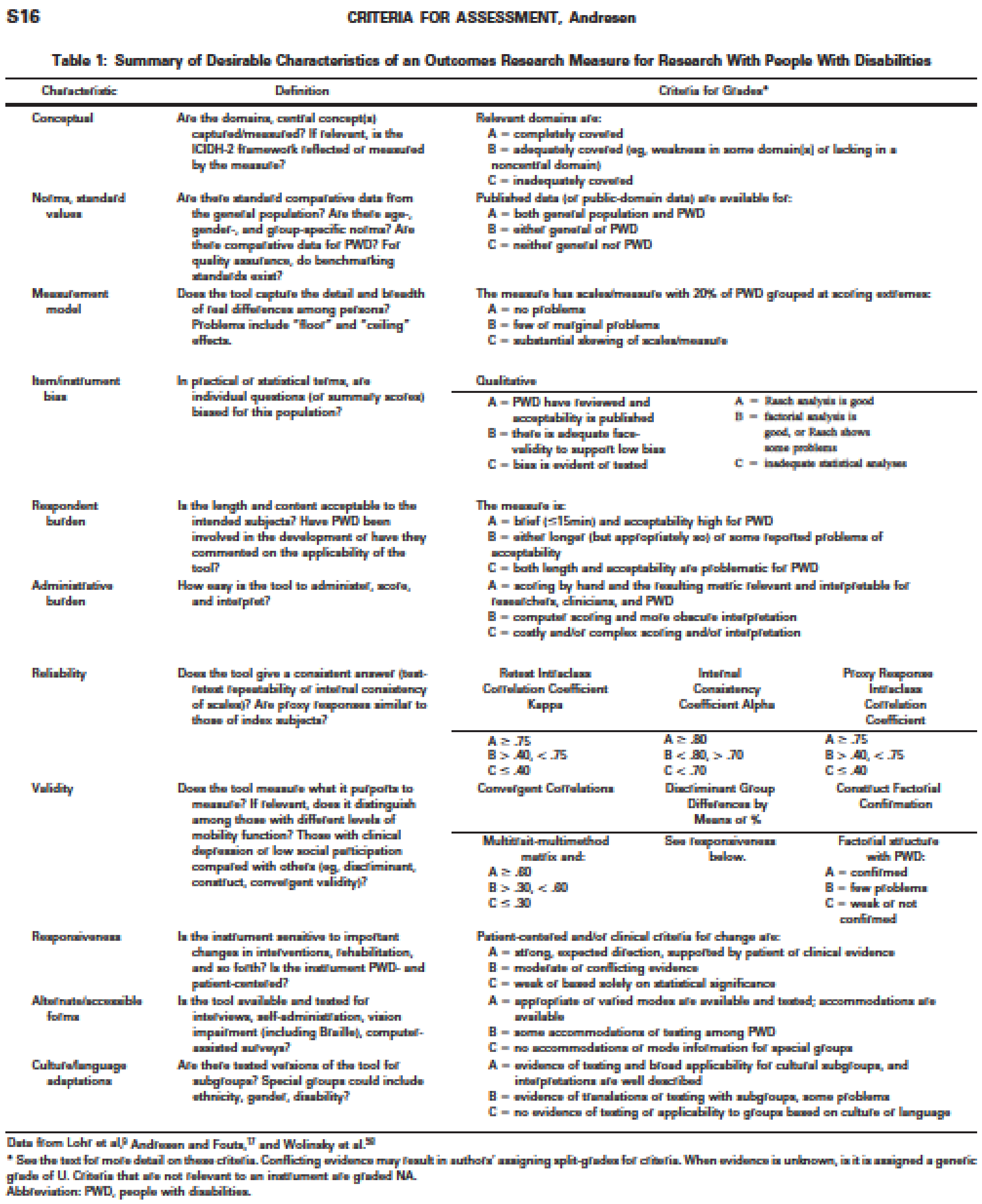


Table 1: Summary of Desirable Characteristics of an Outcomes Research Measure for Research With People With Disabilities

Characteristic	Definition	Criteria for Grades*		
Conceptual	Are the domains, central concept(s) captured/measured? If relevant, is the ICIDH-2 framework reflected or measured by the measure?	Relevant domains are: A = completely covered B = adequately covered (eg, weakness in some domain(s) or lacking in a noncentral domain) C = inadequately covered		
Norms, standard values	Are there standard comparative data from the general population? Are there age-, gender-, and group-specific norms? Are there comparative data for PWD? For quality assurance, do benchmarking standards exist?	Published data (or public-domain data) are available for: A = both general population and PWD B = either general or PWD C = neither general nor PWD		
Measurement model	Does the tool capture the detail and breadth of real differences among persons? Problems include "floor" and "ceiling" effects.	The measure has scales/measure with 20% of PWD grouped at scoring extremes: A = no problems B = few or marginal problems C = substantial skewing of scales/measure		
Item/instrument bias	In practical or statistical terms, are individual questions (or summary scores) biased for this population?	Qualitative		
		A = PWD have reviewed and acceptability is published B = there is adequate face-validity to support low bias C = bias is evident or tested	A = Rasch analysis is good B = factorial analysis is good, or Rasch shows some problems C = inadequate statistical analyses	
Respondent burden	Is the length and content acceptable to the intended subjects? Have PWD been involved in the development or have they commented on the applicability of the tool?	The measure is: A = brief (≤15min) and acceptability high for PWD B = either longer (but appropriately so) or some reported problems of acceptability C = both length and acceptability are problematic for PWD		
Administrative burden	How easy is the tool to administer, score, and interpret?	A = scoring by hand and the resulting metric relevant and interpretable for researchers, clinicians, and PWD B = computer scoring and more obscure interpretation C = costly and/or complex scoring and/or interpretation		
Reliability	Does the tool give a consistent answer (test-retest repeatability or internal consistency of scales)? Are proxy responses similar to those of index subjects?	Retest Intraclass Correlation Coefficient Kappa	Internal Consistency Coefficient Alpha	Proxy Response Intraclass Correlation Coefficient
		A ≥ .75 B > .40, < .75 C ≤ .40	A ≥ .80 B < .80, > .70 C < .70	A ≥ .75 B > .40, < .75 C ≤ .40
Validity	Does the tool measure what it purports to measure? If relevant, does it distinguish among those with different levels of mobility function? Those with clinical depression or low social participation compared with others (eg, discriminant, construct, convergent validity)?	Convergent Correlations	Discriminant Group Differences by Means or %	Construct Factorial Confirmation
		Multitrait-multimethod matrix and: A ≥ .60 B > .30, < .60 C ≤ .30	See responsiveness below.	Factorial structure with PWD: A = confirmed B = few problems C = weak or not confirmed
Responsiveness	Is the instrument sensitive to important changes in interventions, rehabilitation, and so forth? Is the instrument PWD- and patient-centered?	Patient-centered and/or clinical criteria for change are: A = strong, expected direction, supported by patient or clinical evidence B = moderate or conflicting evidence C = weak or based solely on statistical significance		
Alternate/accessible forms	Is the tool available and tested for interviews, self-administration, vision impairment (including Braille), computer-assisted surveys?	A = appropriate or varied modes are available and tested; accommodations are available B = some accommodations or testing among PWD C = no accommodations or mode information for special groups		
Culture/language adaptations	Are there tested versions of the tool for subgroups? Special groups could include ethnicity, gender, disability?	A = evidence of testing and broad applicability for cultural subgroups, and interpretations are well described B = evidence of translations or testing with subgroups, some problems C = no evidence of testing or applicability to groups based on culture or language		

Data from Lohr et al,[9] Andresen and Fouts,[17] and Wolinsky et al.[58]

* See the text for more detail on these criteria. Conflicting evidence may result in authors' assigning split-grades for criteria. When evidence is unknown, is it is assigned a generic grade of U. Criteria that are not relevant to an instrument are graded NA.

Abbreviation: PWD, people with disabilities.

Appendix 4: Smart Multi-Dimensional Model of Clinical Utility

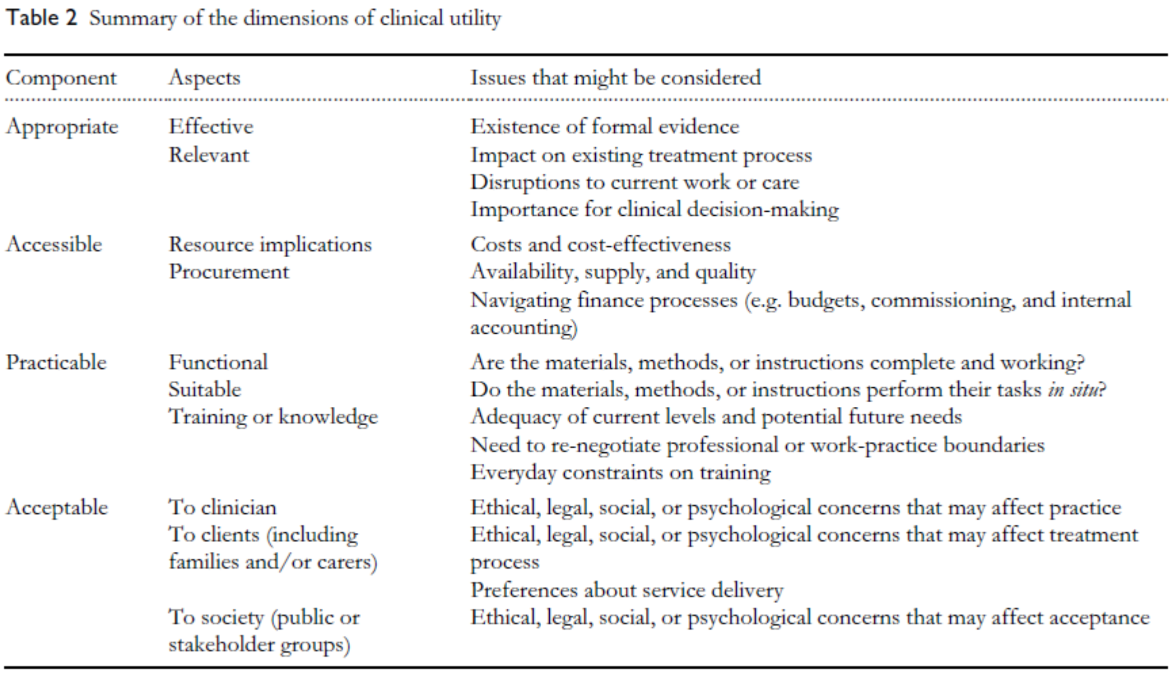


Table 2 Summary of the dimensions of clinical utility

Component	Aspects	Issues that might be considered
Appropriate	Effective Relevant	Existence of formal evidence Impact on existing treatment process Disruptions to current work or care Importance for clinical decision-making
Accessible	Resource implications Procurement	Costs and cost-effectiveness Availability, supply, and quality Navigating finance processes (e.g. budgets, commissioning, and internal accounting)
Practicable	Functional Suitable Training or knowledge	Are the materials, methods, or instructions complete and working? Do the materials, methods, or instructions perform their tasks *in situ*? Adequacy of current levels and potential future needs Need to re-negotiate professional or work-practice boundaries Everyday constraints on training
Acceptable	To clinician To clients (including families and/or carers) To society (public or stakeholder groups)	Ethical, legal, social, or psychological concerns that may affect practice Ethical, legal, social, or psychological concerns that may affect treatment process Preferences about service delivery Ethical, legal, social, or psychological concerns that may affect acceptance

Appendix 5: Andresen and Smart Criteria with Explanations for Item Removal

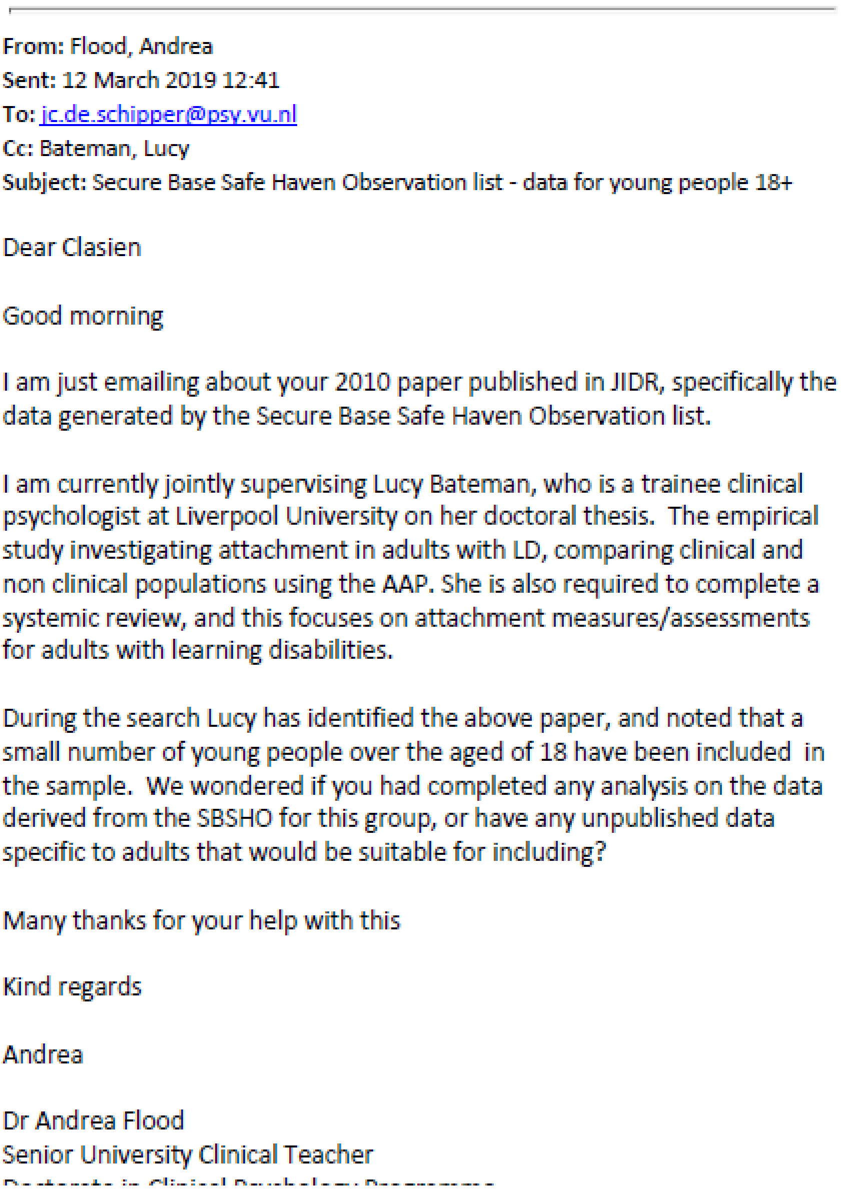
Desirable Characteristics of an Outcome Research Measure for Research with People with Disabilities (Andresen, 2000)

Conceptual – retained at descriptive level and re-termed ‘concept/construct measured’
Norms, standard values – not applicable or not reported in any papers
Measurement model – not applicable or not reported in any papers
Item/instrument bias – not applicable for any measures reported in papers
Respondent burden – retained at descriptive level
Administrative burden – retained at descriptive level
Reliability – retained at descriptive level
Validity – retained at descriptive level
Responsiveness – not applicable for any measures reported in papers
Alternate/accessible forms – retained at descriptive level and re-termed ‘Accessibility/applicability for PWID’
Culture/language adaptations – not reported in any papers

Multi-Dimensional Model of Clinical Utility (Smart, 2006)

Appropriate – retained at descriptive level in terms of effectiveness as measured by existence of formal evidence. Organised under ‘Reliability’ and ‘Validity’. Other aspects of component not reported in any papers
Accessible – retained at descriptive level in terms of cost and availability as this information was reported in papers. Organised under ‘Materials/training required’. Other aspects of component not reported in any papers
Practicable – retained at descriptive in terms of materials/training as this information was reported in papers. Re-termed ‘Materials/training required’. Other aspects of component not reported in any papers
Acceptable – not reported in any papers

Appendix 6: Email Communication with Authors of Paper Containing Sub-Sample of Adults



From: Flood, Andrea
Sent: 12 March 2019 12:41
To: jc.de.schipper@psy.vu.nl
Cc: Bateman, Lucy
Subject: Secure Base Safe Haven Observation list - data for young people 18+

Dear Clasien

Good morning

I am just emailing about your 2010 paper published in JIDR, specifically the data generated by the Secure Base Safe Haven Observation list.

I am currently jointly supervising Lucy Bateman, who is a trainee clinical psychologist at Liverpool University on her doctoral thesis. The empirical study investigating attachment in adults with LD, comparing clinical and non clinical populations using the AAP. She is also required to complete a systemic review, and this focuses on attachment measures/assessments for adults with learning disabilities.

During the search Lucy has identified the above paper, and noted that a small number of young people over the aged of 18 have been included in the sample. We wondered if you had completed any analysis on the data derived from the SBSHO for this group, or have any unpublished data specific to adults that would be suitable for including?

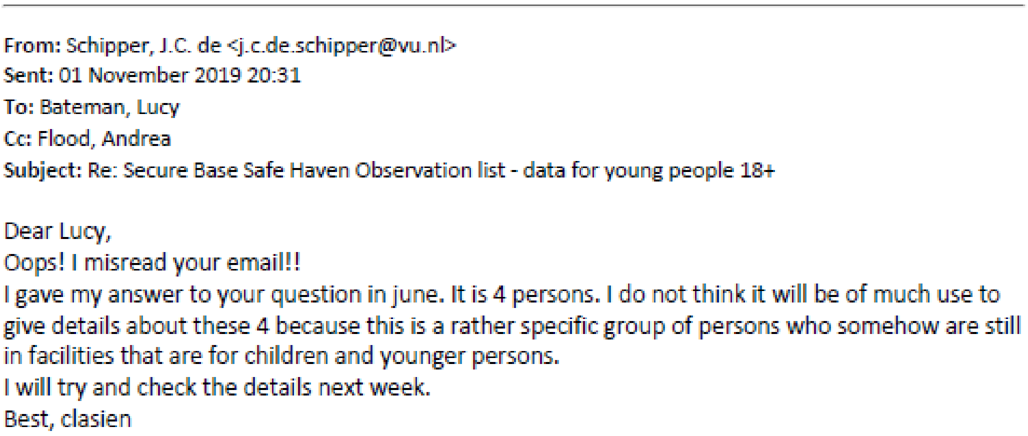
Many thanks for your help with this

Kind regards

Andrea

Dr Andrea Flood
Senior University Clinical Teacher

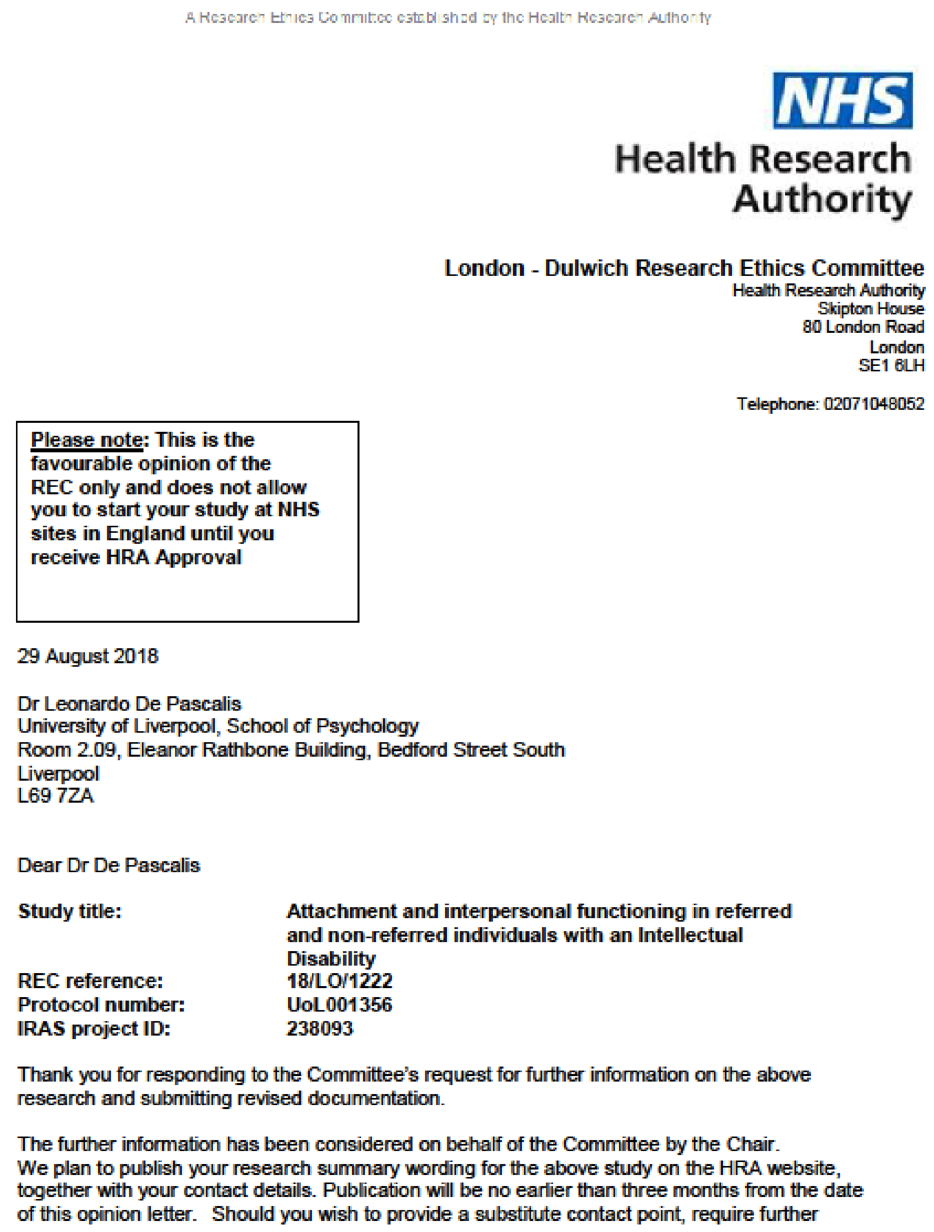
....



From: Schipper, J.C. de <j.c.de.schipper@vu.nl>
Sent: 01 November 2019 20:31
To: Bateman, Lucy
Cc: Flood, Andrea
Subject: Re: Secure Base Safe Haven Observation list - data for young people 18+

Dear Lucy,
Oops! I misread your email!!
I gave my answer to your question in june. It is 4 persons. I do not think it will be of much use to give details about these 4 because this is a rather specific group of persons who somehow are still in facilities that are for children and younger persons.
I will try and check the details next week.
Best, clasien

Appendix 7: NHS Ethical Approval



A Research Ethics Committee established by the Health Research Authority

NHS
Health Research Authority

London - Dulwich Research Ethics Committee
Health Research Authority
Skipton House
80 London Road
London
SE1 6LH

Telephone: 02071048052

<u>Please note</u>: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England until you receive HRA Approval

29 August 2018

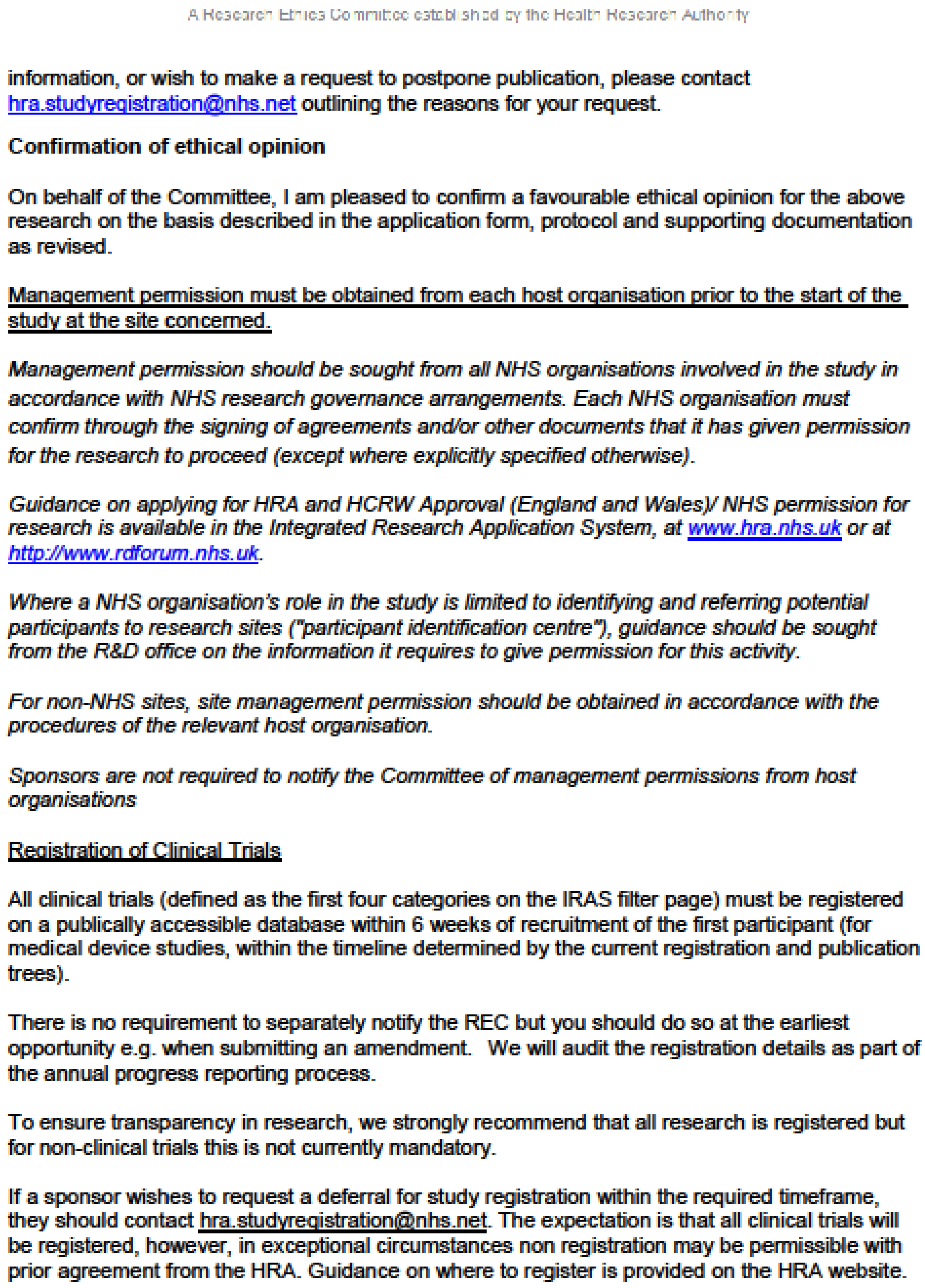
Dr Leonardo De Pascalis
University of Liverpool, School of Psychology
Room 2.09, Eleanor Rathbone Building, Bedford Street South
Liverpool
L69 7ZA

Dear Dr De Pascalis

Study title:	**Attachment and interpersonal functioning in referred and non-referred individuals with an Intellectual Disability**
REC reference:	**18/LO/1222**
Protocol number:	**UoL001356**
IRAS project ID:	**238093**

Thank you for responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.
We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this opinion letter. Should you wish to provide a substitute contact point, require further



information, or wish to make a request to postpone publication, please contact hra.studyregistration@nhs.net outlining the reasons for your request.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Management permission must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements. Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for HRA and HCRW Approval (England and Wales)/ NHS permission for research is available in the Integrated Research Application System, at www.hra.nhs.uk or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of management permissions from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact hra.studyregistration@nhs.net. The expectation is that all clinical trials will be registered, however, in exceptional circumstances non registration may be permissible with prior agreement from the HRA. Guidance on where to register is provided on the HRA website.

Ethical review of research sites

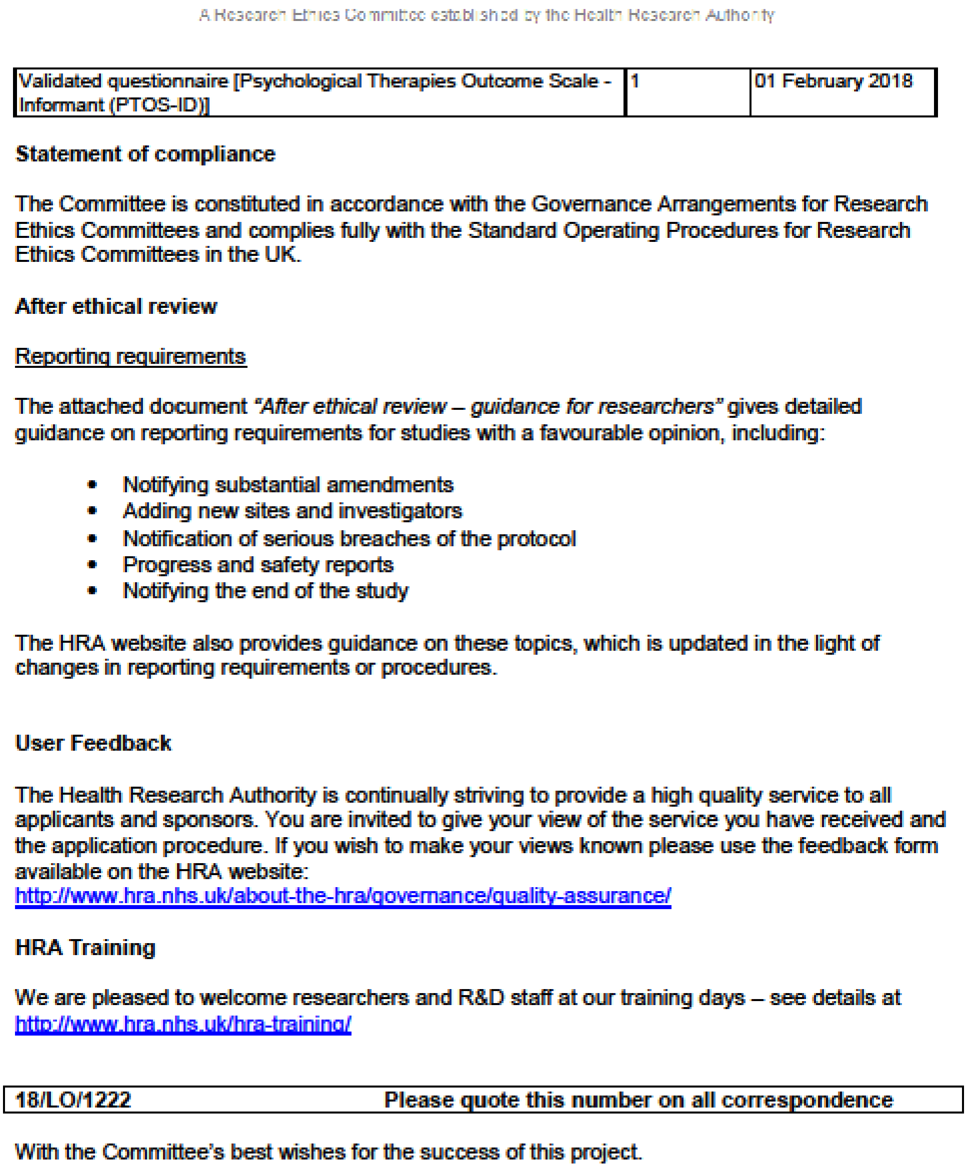
NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [UoL Sponsor Insurance]	1	27 July 2017
Interview schedules or topic guides for participants [Post AAP Short Interview Schedule]	1	01 February 2018
IRAS Application Form [IRAS_Form_21052018]		21 May 2018
IRAS Application Form [IRAS_Form_23082018]		23 August 2018
IRAS Application Form XML file [IRAS_Form_23082018]		23 August 2018
IRAS Checklist XML [Checklist_20082018]		20 August 2018
IRAS Checklist XML [Checklist_23082018]		23 August 2018
Letter from sponsor [Sponsor Approval Letter]	2	13 March 2018
Non-validated questionnaire [Study Partner Questionnaire Based on Post AAP Short Interview Schedule]	1	01 February 2018
Non-validated questionnaire [Demographic Questionnaire]	1	13 February 2018
Other [Validation Queries]		22 May 2018
Other [The development and preliminary validation of a new measure of adult attachment: the Adult Attachment Projective']	1	07 August 2018
Other [Response letter to REC]		20 August 2018
Participant consent form [Service User Consent Form]	1	01 February 2018
Participant consent form [Study Partner Consent Form]	1	01 February 2018
Participant consent form [Service User Consent Form]	2	03 August 2018
Participant consent form [Study Partner Consent Form]	2	03 August 2018
Participant information sheet (PIS) [Service User Information Sheet]	1	01 February 2018
Participant information sheet (PIS) [Study Partner Information Sheet]	1	01 February 2018
Participant information sheet (PIS) [Study Partner Information Sheet]	2	03 August 2018
Research protocol or project proposal [Project Proposal]	3	27 February 2018
Summary CV for Chief Investigator (CI) [Chief Investigator CV]	1	01 February 2018
Summary CV for student [CV for Student]	1	01 February 2018
Summary CV for supervisor (student research) [Primary Supervisor CV]	1	15 March 2018
Summary CV for supervisor (student research) [Secondary Supervisor CV]	1	01 February 2018
Validated questionnaire [Manchester Attachment Scale (MAST)]	1	01 February 2018
Validated questionnaire [Psychological Therapies Outcome Scale - Client (PTOS-ID)]	1	01 February 2018



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Validated questionnaire [Psychological Therapies Outcome Scale - Informant (PTOS-ID)]	1	01 February 2018

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback

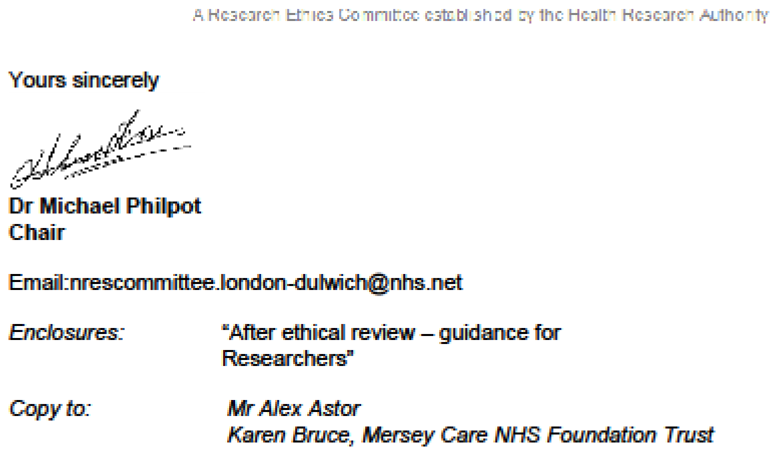
The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

18/LO/1222 **Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project.



A Research Ethics Committee established by the Health Research Authority

Yours sincerely

Dr Michael Philpot
Chair

Email:nrescommittee.london-dulwich@nhs.net

Enclosures:	"After ethical review – guidance for Researchers"
Copy to:	*Mr Alex Astor* *Karen Bruce, Mersey Care NHS Foundation Trust*

Appendix 8: Health Research Authority Permission to Conduct Research

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Dr Leonardo De Pascalis
University of Liverpool, School of Psychology
Room 2.09, Eleanor Rathbone Building, Bedford Street South
Liverpool
L69 7ZA

Email: hra.approval@nhs.net
Research-permissions@wales.nhs.uk

24 September 2018

Dear Dr De Pascalis

HRA and Health and Care Research Wales (HCRW) Approval Letter

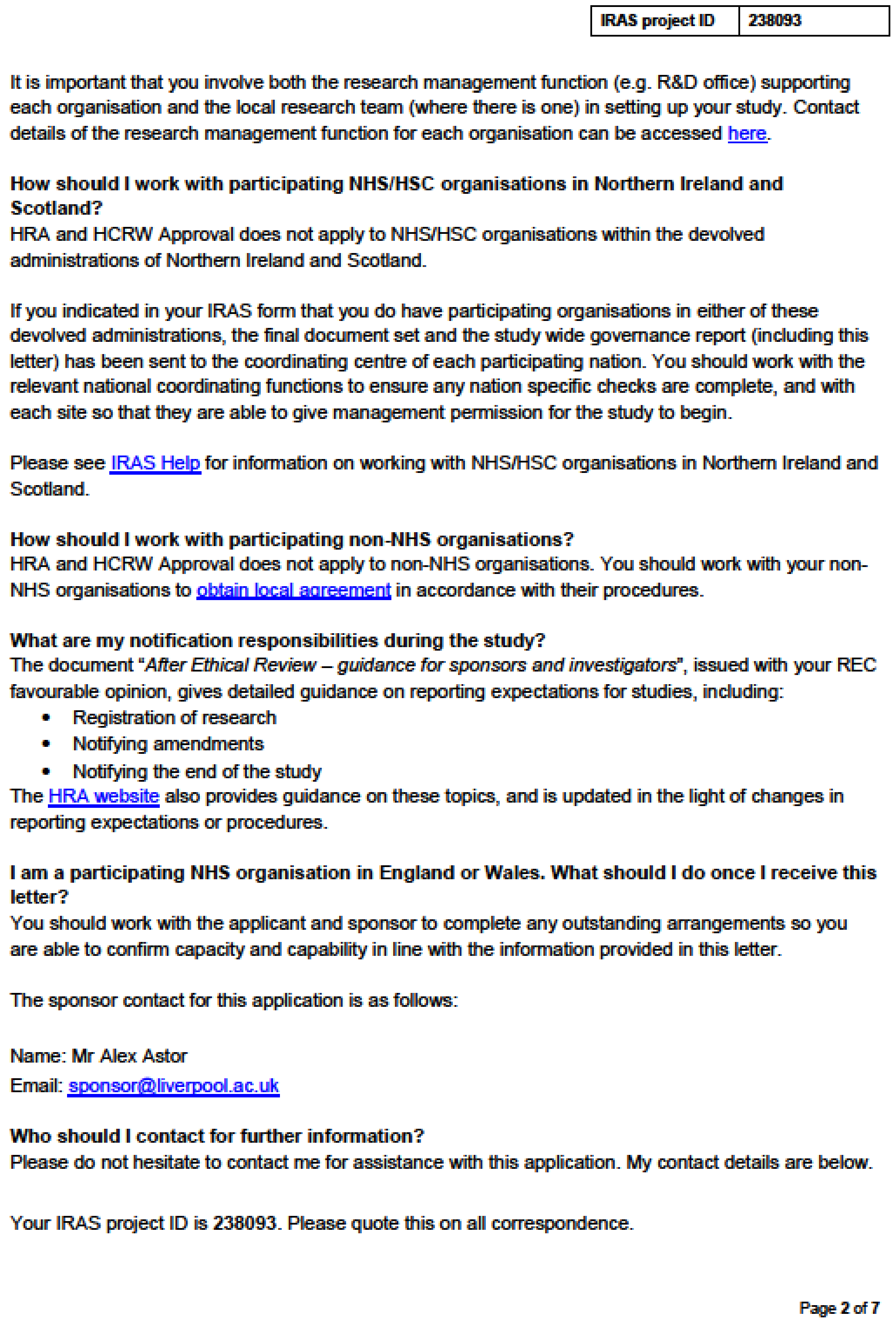
Study title:	**Attachment and interpersonal functioning in referred and non-referred individuals with an Intellectual Disability**
IRAS project ID:	**238093**
Protocol number:	**UoL001356**
REC reference:	**18/LO/1222**
Sponsor	**University of Liverpool**

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

How should I continue to work with participating NHS organisations in England and Wales?
You should now provide a copy of this letter to all participating NHS organisations in England and Wales, as well as any documentation that has been updated as a result of the assessment.

Following the arranging of capacity and capability, participating NHS organisations should formally confirm their capacity and capability to undertake the study. How this will be confirmed is detailed in the "*summary of assessment*" section towards the end of this letter.

You should provide, if you have not already done so, detailed instructions to each organisation as to how you will notify them that research activities may commence at site following their confirmation of capacity and capability (e.g. provision by you of a 'green light' email, formal notification following a site initiation visit, activities may commence immediately following confirmation by participating organisation, etc.).



It is important that you involve both the research management function (e.g. R&D office) supporting each organisation and the local research team (where there is one) in setting up your study. Contact details of the research management function for each organisation can be accessed here.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within the devolved administrations of Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) has been sent to the coordinating centre of each participating nation. You should work with the relevant national coordinating functions to ensure any nation specific checks are complete, and with each site so that they are able to give management permission for the study to begin.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?
The document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

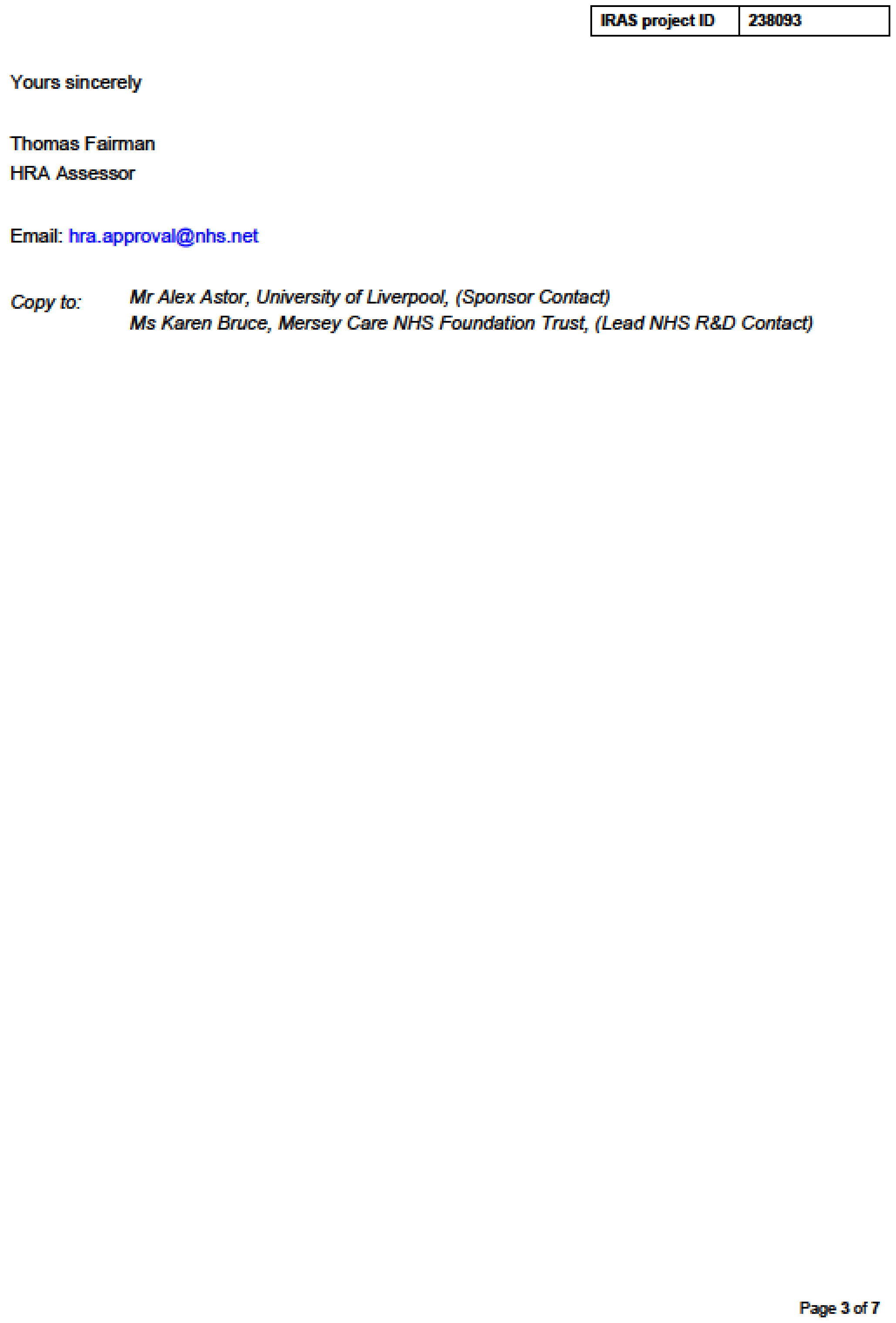
I am a participating NHS organisation in England or Wales. What should I do once I receive this letter?
You should work with the applicant and sponsor to complete any outstanding arrangements so you are able to confirm capacity and capability in line with the information provided in this letter.

The sponsor contact for this application is as follows:

Name: Mr Alex Astor
Email: sponsor@liverpool.ac.uk

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is 238093. Please quote this on all correspondence.



IRAS project ID	**238093**

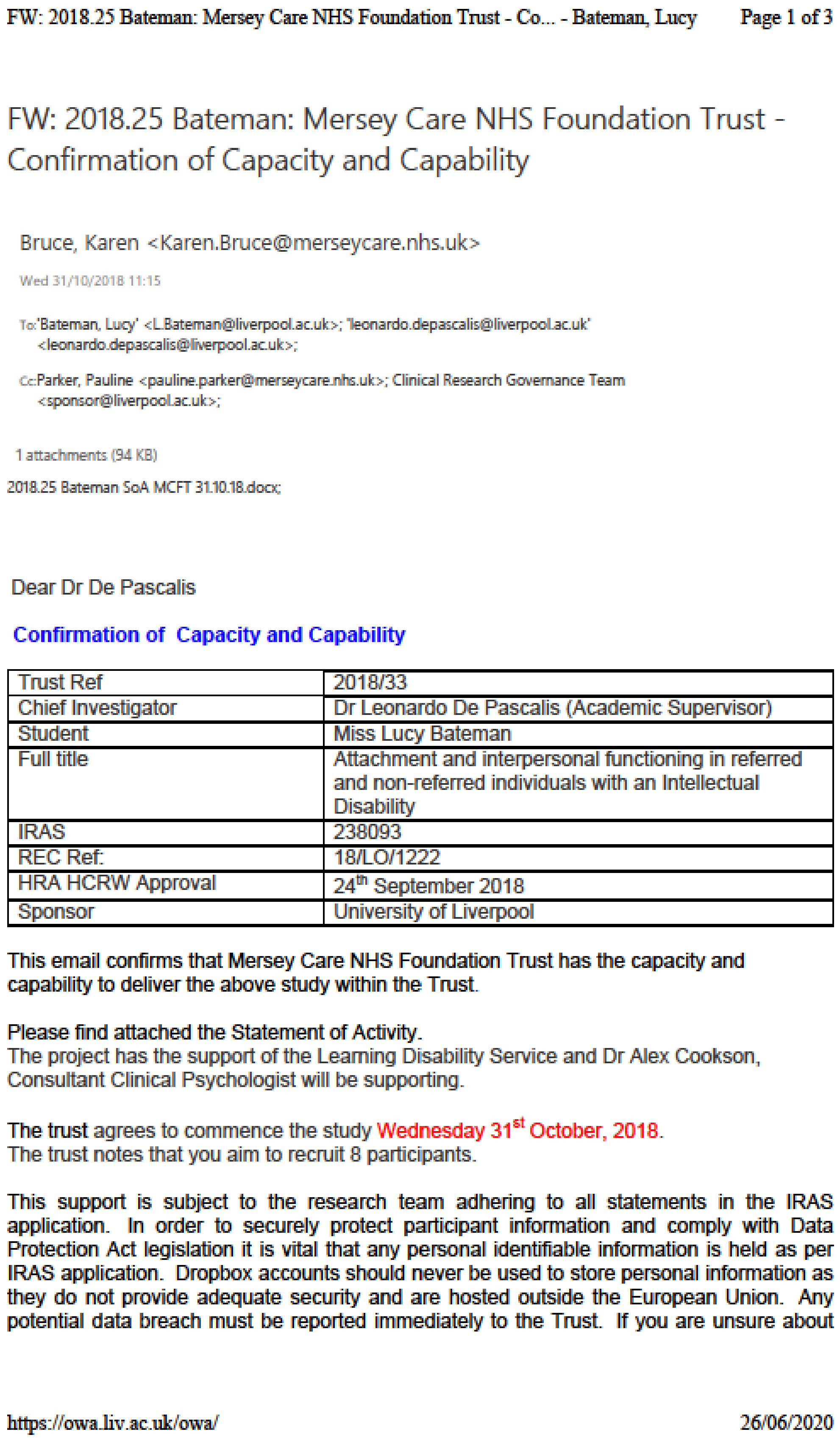
Yours sincerely

Thomas Fairman
HRA Assessor

Email: hra.approval@nhs.net

Copy to: *Mr Alex Astor, University of Liverpool, (Sponsor Contact)*
Ms Karen Bruce, Mersey Care NHS Foundation Trust, (Lead NHS R&D Contact)

Appendix 9: Approval: Mersey Care NHS Foundation Trust



FW: 2018.25 Bateman: Mersey Care NHS Foundation Trust - Confirmation of Capacity and Capability

Bruce, Karen <Karen.Bruce@merseycare.nhs.uk>

Wed 31/10/2018 11:15

To:'Bateman, Lucy' <L.Bateman@liverpool.ac.uk>; 'leonardo.depascalis@liverpool.ac.uk' <leonardo.depascalis@liverpool.ac.uk>;

Cc:Parker, Pauline <pauline.parker@merseycare.nhs.uk>; Clinical Research Governance Team <sponsor@liverpool.ac.uk>;

1 attachments (94 KB)

2018.25 Bateman SoA MCFT 31.10.18.docx;

Dear Dr De Pascalis

Confirmation of Capacity and Capability

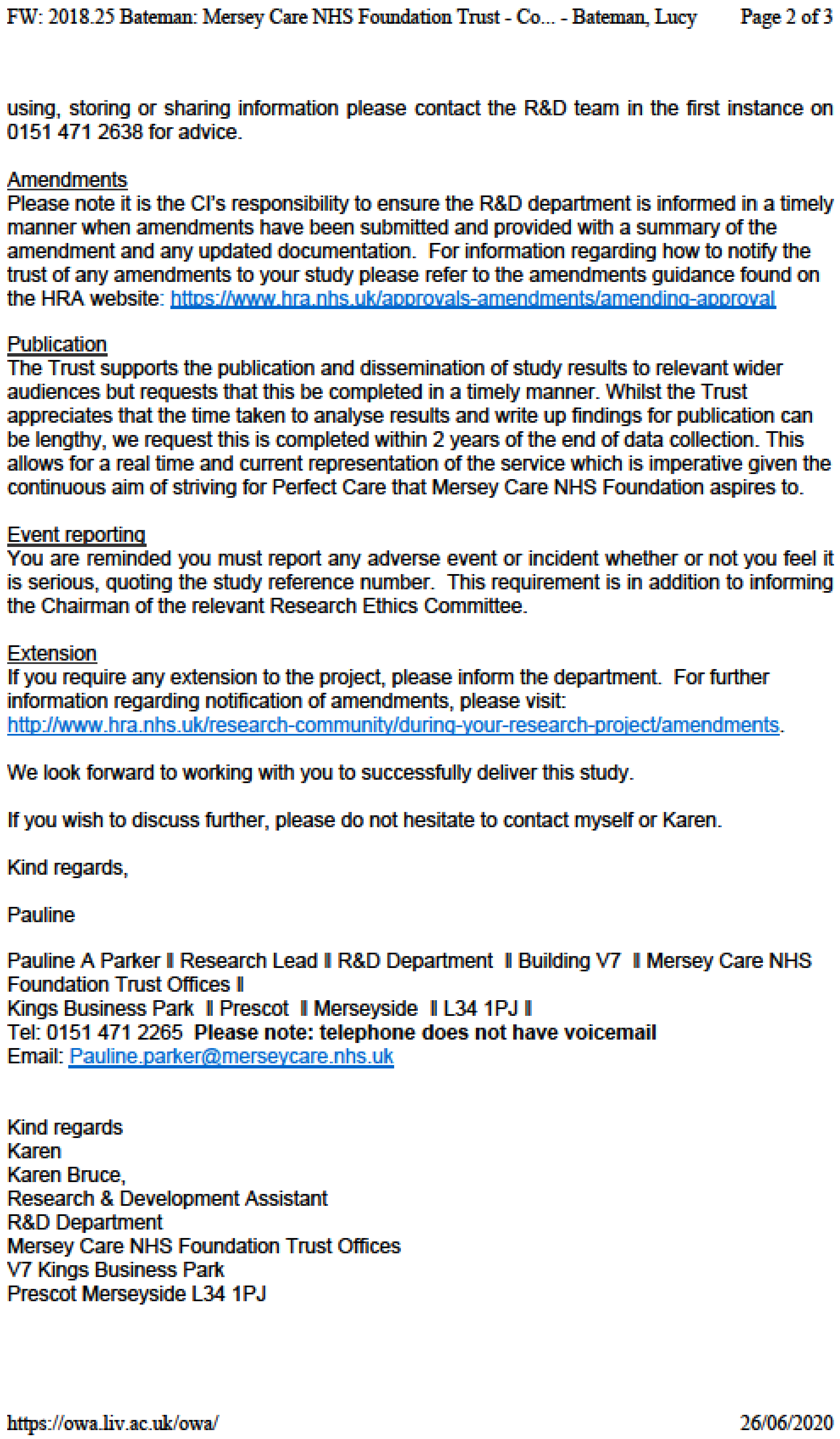
Trust Ref	2018/33
Chief Investigator	Dr Leonardo De Pascalis (Academic Supervisor)
Student	Miss Lucy Bateman
Full title	Attachment and interpersonal functioning in referred and non-referred individuals with an Intellectual Disability
IRAS	238093
REC Ref:	18/LO/1222
HRA HCRW Approval	24th September 2018
Sponsor	University of Liverpool

This email confirms that Mersey Care NHS Foundation Trust has the capacity and capability to deliver the above study within the Trust.

Please find attached the Statement of Activity.
The project has the support of the Learning Disability Service and Dr Alex Cookson, Consultant Clinical Psychologist will be supporting.

The trust agrees to commence the study Wednesday 31st October, 2018.
The trust notes that you aim to recruit 8 participants.

This support is subject to the research team adhering to all statements in the IRAS application. In order to securely protect participant information and comply with Data Protection Act legislation it is vital that any personal identifiable information is held as per IRAS application. Dropbox accounts should never be used to store personal information as they do not provide adequate security and are hosted outside the European Union. Any potential data breach must be reported immediately to the Trust. If you are unsure about



using, storing or sharing information please contact the R&D team in the first instance on 0151 471 2638 for advice.

Amendments
Please note it is the CI's responsibility to ensure the R&D department is informed in a timely manner when amendments have been submitted and provided with a summary of the amendment and any updated documentation. For information regarding how to notify the trust of any amendments to your study please refer to the amendments guidance found on the HRA website: https://www.hra.nhs.uk/approvals-amendments/amending-approval

Publication
The Trust supports the publication and dissemination of study results to relevant wider audiences but requests that this be completed in a timely manner. Whilst the Trust appreciates that the time taken to analyse results and write up findings for publication can be lengthy, we request this is completed within 2 years of the end of data collection. This allows for a real time and current representation of the service which is imperative given the continuous aim of striving for Perfect Care that Mersey Care NHS Foundation aspires to.

Event reporting
You are reminded you must report any adverse event or incident whether or not you feel it is serious, quoting the study reference number. This requirement is in addition to informing the Chairman of the relevant Research Ethics Committee.

Extension
If you require any extension to the project, please inform the department. For further information regarding notification of amendments, please visit: http://www.hra.nhs.uk/research-community/during-your-research-project/amendments.

We look forward to working with you to successfully deliver this study.

If you wish to discuss further, please do not hesitate to contact myself or Karen.

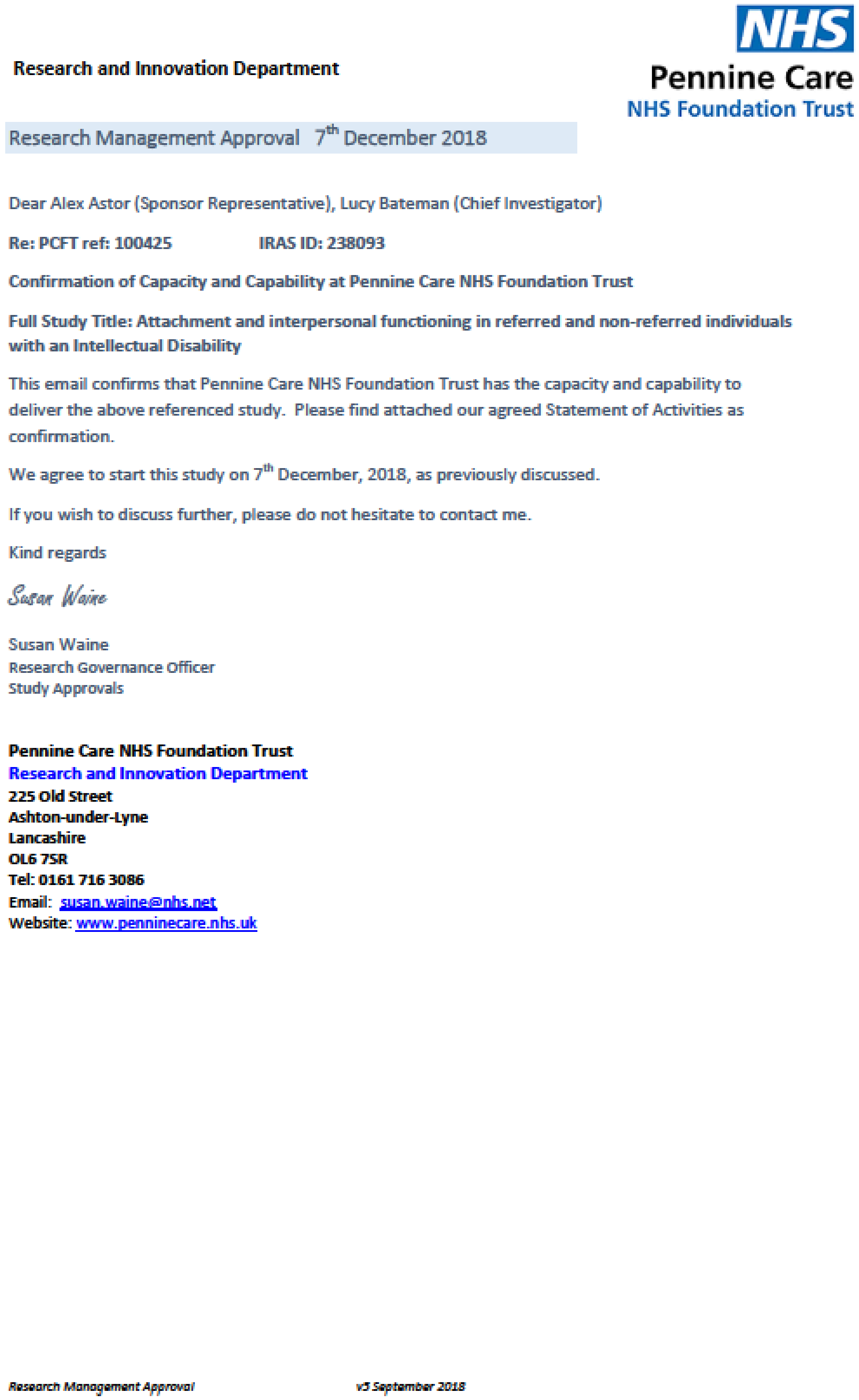
Kind regards,

Pauline

Pauline A Parker | Research Lead | R&D Department | Building V7 | Mersey Care NHS Foundation Trust Offices |
Kings Business Park | Prescot | Merseyside | L34 1PJ |
Tel: 0151 471 2265 **Please note: telephone does not have voicemail**
Email: Pauline.parker@merseycare.nhs.uk

Kind regards
Karen
Karen Bruce,
Research & Development Assistant
R&D Department
Mersey Care NHS Foundation Trust Offices
V7 Kings Business Park
Prescot Merseyside L34 1PJ

Appendix 10: Approval: Pennine Care NHS Foundation Trust



Research and Innovation Department

NHS
Pennine Care
NHS Foundation Trust

Research Management Approval 7th December 2018

Dear Alex Astor (Sponsor Representative), Lucy Bateman (Chief Investigator)

Re: PCFT ref: 100425 IRAS ID: 238093

Confirmation of Capacity and Capability at Pennine Care NHS Foundation Trust

Full Study Title: Attachment and interpersonal functioning in referred and non-referred individuals with an Intellectual Disability

This email confirms that Pennine Care NHS Foundation Trust has the capacity and capability to deliver the above referenced study. Please find attached our agreed Statement of Activities as confirmation.

We agree to start this study on 7th December, 2018, as previously discussed.

If you wish to discuss further, please do not hesitate to contact me.

Kind regards

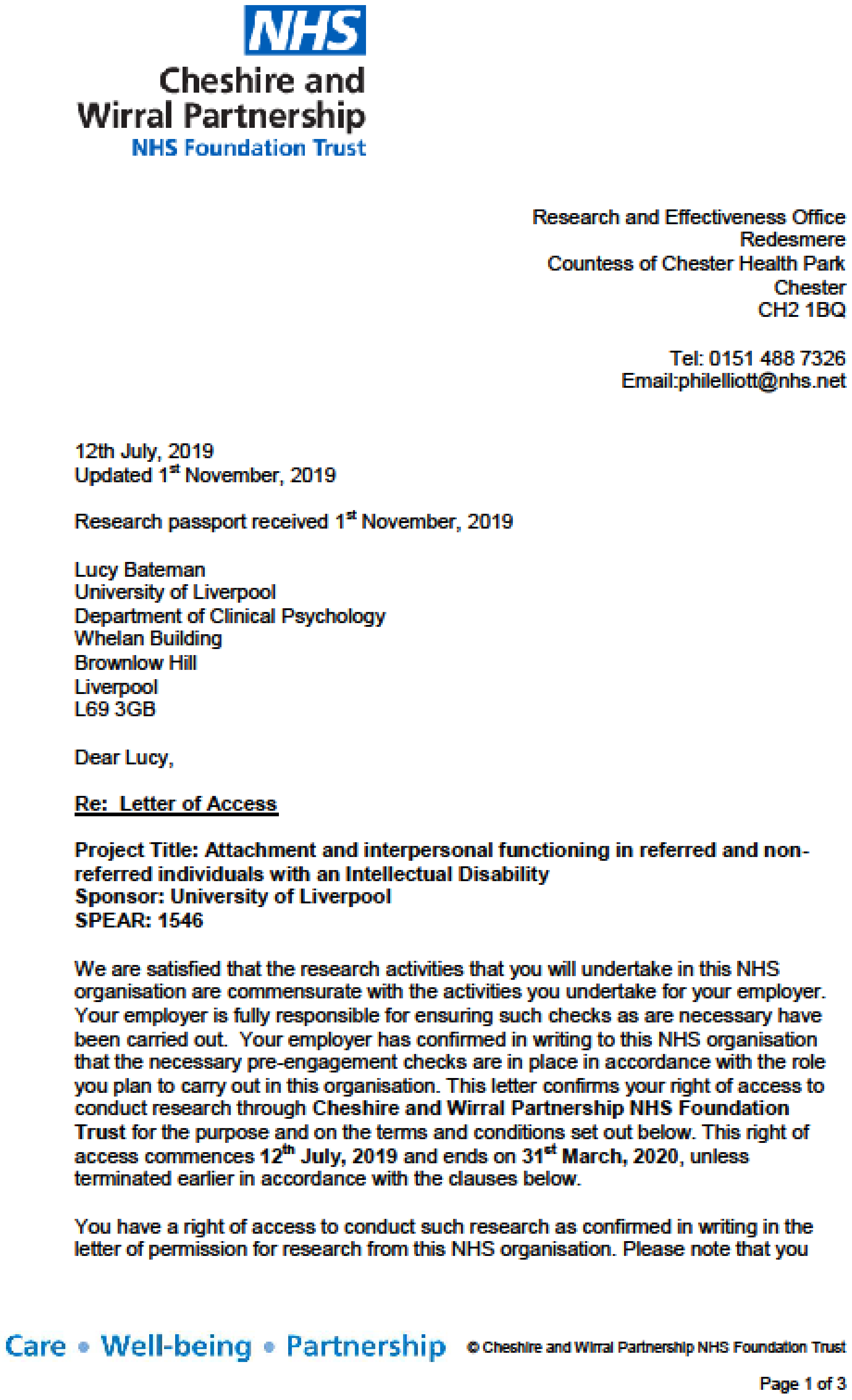
Susan Waine

Susan Waine
Research Governance Officer
Study Approvals

Pennine Care NHS Foundation Trust
Research and Innovation Department
225 Old Street
Ashton-under-Lyne
Lancashire
OL6 7SR
Tel: 0161 716 3086
Email: susan.waine@nhs.net
Website: www.penninecare.nhs.uk

Research Management Approval *v3 September 2018*

Appendix 11: Approval: Cheshire and Wirral NHS Foundation Trust



NHS
Cheshire and
Wirral Partnership
NHS Foundation Trust

Research and Effectiveness Office
Redesmere
Countess of Chester Health Park
Chester
CH2 1BQ

Tel: 0151 488 7326
Email:philelliott@nhs.net

12th July, 2019
Updated 1st November, 2019

Research passport received 1st November, 2019

Lucy Bateman
University of Liverpool
Department of Clinical Psychology
Whelan Building
Brownlow Hill
Liverpool
L69 3GB

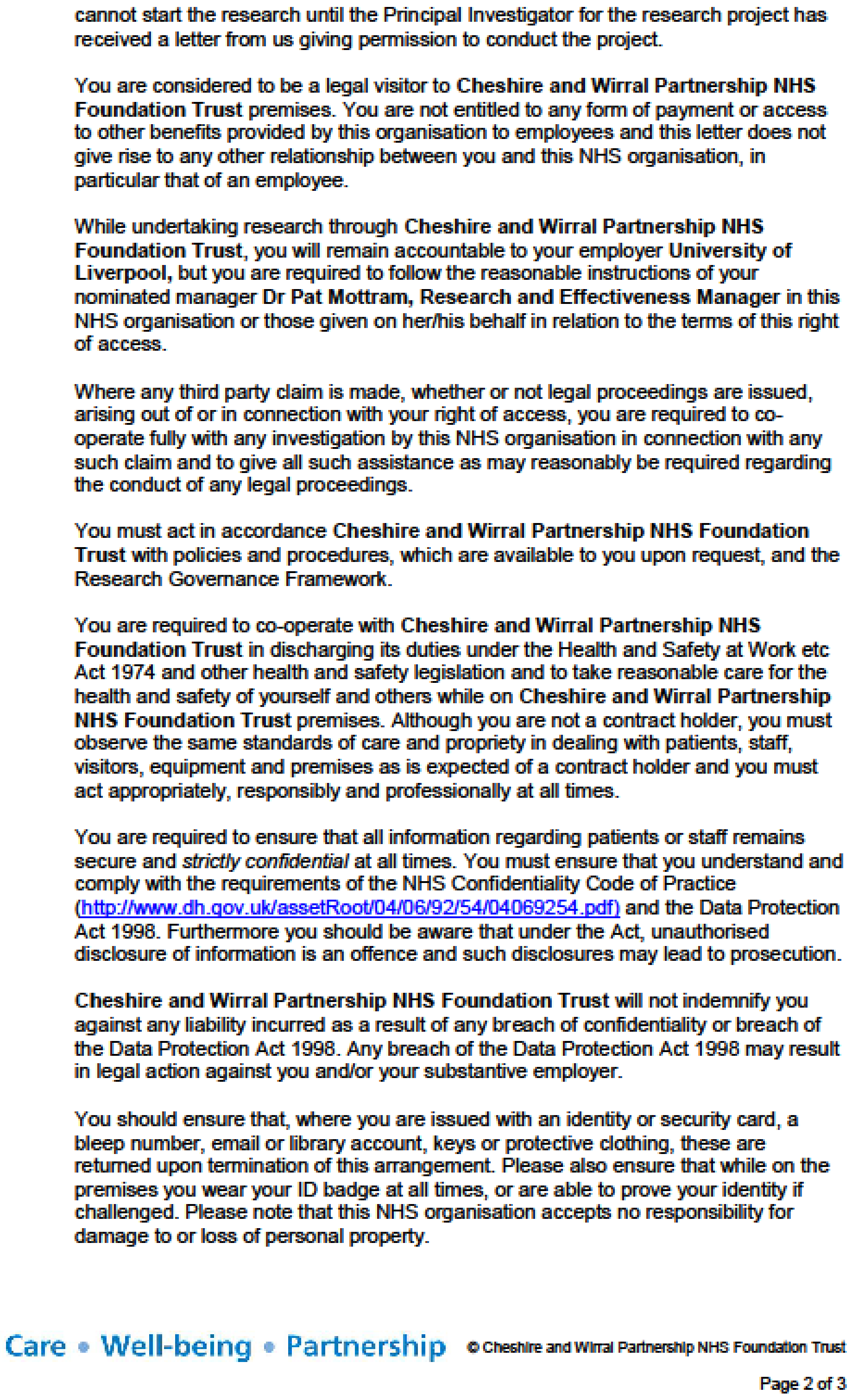
Dear Lucy,

Re: Letter of Access

Project Title: Attachment and interpersonal functioning in referred and non-referred individuals with an Intellectual Disability
Sponsor: University of Liverpool
SPEAR: 1546

We are satisfied that the research activities that you will undertake in this NHS organisation are commensurate with the activities you undertake for your employer. Your employer is fully responsible for ensuring such checks as are necessary have been carried out. Your employer has confirmed in writing to this NHS organisation that the necessary pre-engagement checks are in place in accordance with the role you plan to carry out in this organisation. This letter confirms your right of access to conduct research through **Cheshire and Wirral Partnership NHS Foundation Trust** for the purpose and on the terms and conditions set out below. This right of access commences **12th July, 2019** and ends on **31st March, 2020**, unless terminated earlier in accordance with the clauses below.

You have a right of access to conduct such research as confirmed in writing in the letter of permission for research from this NHS organisation. Please note that you



cannot start the research until the Principal Investigator for the research project has received a letter from us giving permission to conduct the project.

You are considered to be a legal visitor to **Cheshire and Wirral Partnership NHS Foundation Trust** premises. You are not entitled to any form of payment or access to other benefits provided by this organisation to employees and this letter does not give rise to any other relationship between you and this NHS organisation, in particular that of an employee.

While undertaking research through **Cheshire and Wirral Partnership NHS Foundation Trust**, you will remain accountable to your employer **University of Liverpool,** but you are required to follow the reasonable instructions of your nominated manager **Dr Pat Mottram, Research and Effectiveness Manager** in this NHS organisation or those given on her/his behalf in relation to the terms of this right of access.

Where any third party claim is made, whether or not legal proceedings are issued, arising out of or in connection with your right of access, you are required to co-operate fully with any investigation by this NHS organisation in connection with any such claim and to give all such assistance as may reasonably be required regarding the conduct of any legal proceedings.

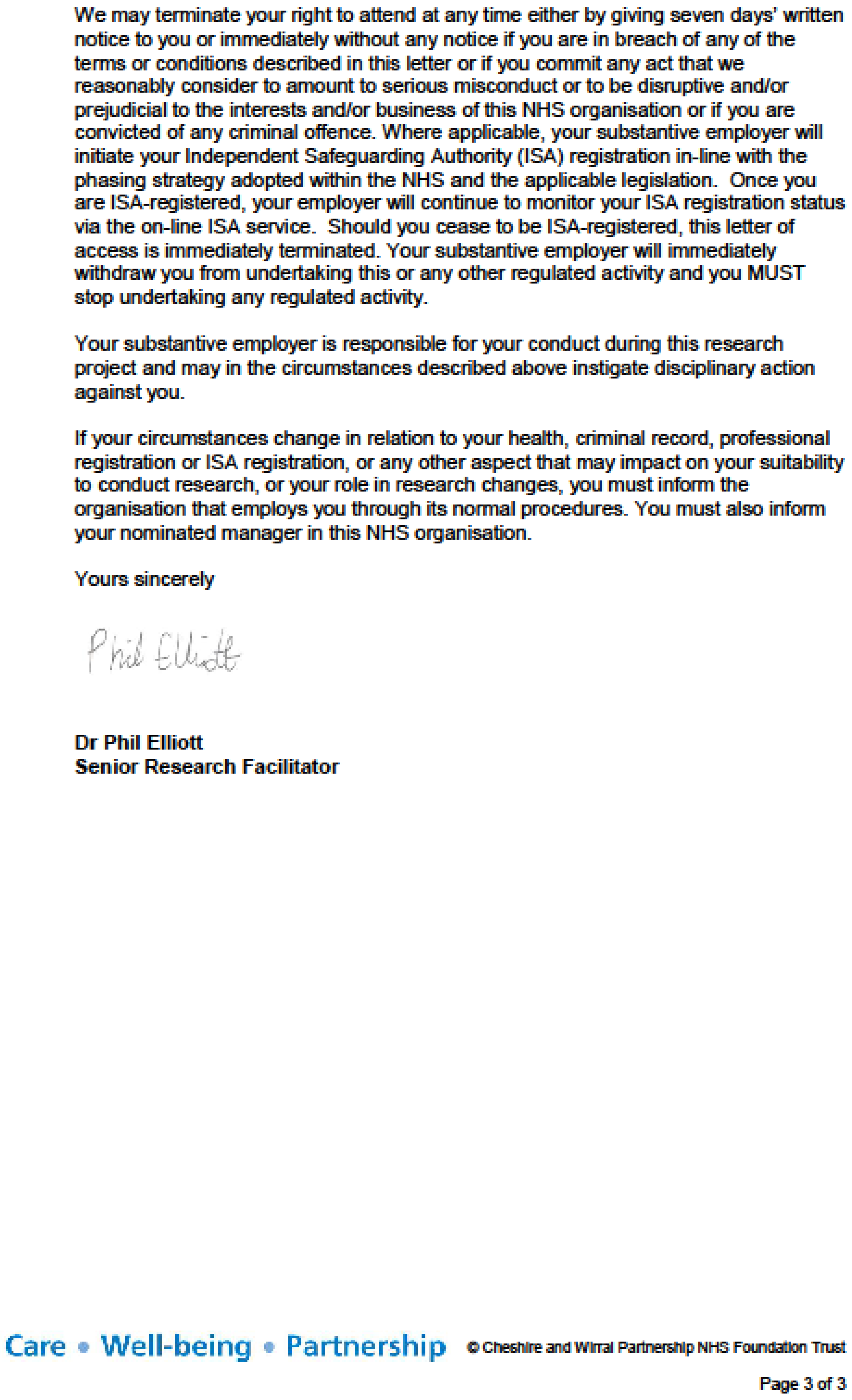
You must act in accordance **Cheshire and Wirral Partnership NHS Foundation Trust** with policies and procedures, which are available to you upon request, and the Research Governance Framework.

You are required to co-operate with **Cheshire and Wirral Partnership NHS Foundation Trust** in discharging its duties under the Health and Safety at Work etc Act 1974 and other health and safety legislation and to take reasonable care for the health and safety of yourself and others while on **Cheshire and Wirral Partnership NHS Foundation Trust** premises. Although you are not a contract holder, you must observe the same standards of care and propriety in dealing with patients, staff, visitors, equipment and premises as is expected of a contract holder and you must act appropriately, responsibly and professionally at all times.

You are required to ensure that all information regarding patients or staff remains secure and *strictly confidential* at all times. You must ensure that you understand and comply with the requirements of the NHS Confidentiality Code of Practice (http://www.dh.gov.uk/assetRoot/04/06/92/54/04069254.pdf) and the Data Protection Act 1998. Furthermore you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.

Cheshire and Wirral Partnership NHS Foundation Trust will not indemnify you against any liability incurred as a result of any breach of confidentiality or breach of the Data Protection Act 1998. Any breach of the Data Protection Act 1998 may result in legal action against you and/or your substantive employer.

You should ensure that, where you are issued with an identity or security card, a bleep number, email or library account, keys or protective clothing, these are returned upon termination of this arrangement. Please also ensure that while on the premises you wear your ID badge at all times, or are able to prove your identity if challenged. Please note that this NHS organisation accepts no responsibility for damage to or loss of personal property.



We may terminate your right to attend at any time either by giving seven days' written notice to you or immediately without any notice if you are in breach of any of the terms or conditions described in this letter or if you commit any act that we reasonably consider to amount to serious misconduct or to be disruptive and/or prejudicial to the interests and/or business of this NHS organisation or if you are convicted of any criminal offence. Where applicable, your substantive employer will initiate your Independent Safeguarding Authority (ISA) registration in-line with the phasing strategy adopted within the NHS and the applicable legislation. Once you are ISA-registered, your employer will continue to monitor your ISA registration status via the on-line ISA service. Should you cease to be ISA-registered, this letter of access is immediately terminated. Your substantive employer will immediately withdraw you from undertaking this or any other regulated activity and you MUST stop undertaking any regulated activity.

Your substantive employer is responsible for your conduct during this research project and may in the circumstances described above instigate disciplinary action against you.

If your circumstances change in relation to your health, criminal record, professional registration or ISA registration, or any other aspect that may impact on your suitability to conduct research, or your role in research changes, you must inform the organisation that employs you through its normal procedures. You must also inform your nominated manager in this NHS organisation.

Yours sincerely

Phil Elliott

Dr Phil Elliott
Senior Research Facilitator

Appendix 12: Participant Information Sheet

Research study: Relationships and People with Learning Disabilities

Please read this sheet carefully.

My name is Lucy. I am a Trainee Clinical Psychologist from the University of Liverpool. I am doing some research. I would like to invite you to take part.

What is research?

Research is the name for what people do when they want to find out more about something.

What is the research about?

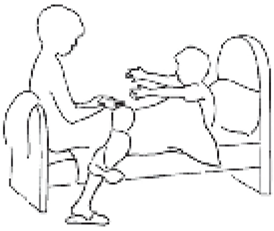
The research is about the thoughts and feelings that people with Learning Disabilities have about relationships. This is something that we do not know very much about.

Why have I been asked to take part?

You have been asked to take part because you are supported by a Learning Disability service. Lucy is hoping that 30 people with a Learning Disability and their carers will take part.

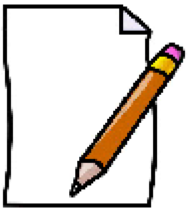
What will happen if I say yes?

Lucy will meet you somewhere private. Lucy will ask you to give permission for your carer to provide some information about you. They will go to another room and fill out some questionnaires. The questionnaires ask about how you cope with your feelings.

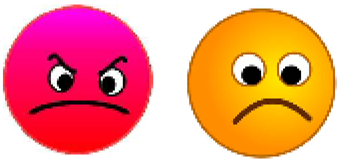


Lucy will show you some pictures about relationships. Lucy will ask you to make up a story about the pictures. There are no right or wrong answers, you just have to make up your own story. You will not have to say anything that you do not want to.

Lucy will record the stories so she can hear and remember what you say. If you want to finish the meeting at any point, just tell Lucy and it will stop right away.



After the pictures, Lucy will also ask you some questions and write down your answers. These questions are about your feelings and how you get on with other people.



Are there any bad things about taking part?

Looking at the pictures is OK for most people but sometimes the pictures can make people remember things from the past. People may remember things that make them feel sad or angry. It is important to know this could happen to you.

Please think carefully about this before deciding whether to take part.

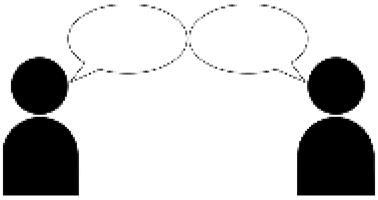
Are there any good things about taking part?

We hope that the research will help us to learn more about how people with Learning Disabilities think and feel about relationships. This may help us to understand people better.

What if I change my mind?

If you change your mind at any point, just tell Lucy you want to stop. You do not have to give a reason. If you do not want your stories to be used, they will be destroyed.

What if I want to talk to someone after taking part?



Some people may want to talk to someone after looking at the pictures. They may feel sad or angry, or just want to talk more. You can talk to Lucy after looking at the pictures. You can also talk to people close to you, like your family or support workers. If you want to talk to someone outside your family, Lucy will help to make this happen.

What will happen to the information I give?

Lucy will listen to your stories and type them out. She will not put your real name on the stories. She will put a number on the stories, so no-one will know that they are yours.

Carol

Deanna

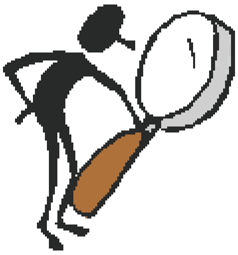
Lucy will send the stories to two psychologists. They are called Deanna and Carol. Deanna lives in the south of England and Carol lives in America. You will not meet them. When Deanna and Carol read your stories, they will only see a number at the top. They will not know your name, or anything else about you.

All the information will be kept in a locked file at the university. These files are private. Nobody else can see them apart from Lucy.

When the research has finished, Lucy will write a report. She may want to include some of the stories, but she will never use your name so no-one will be able to tell it was you.

The people who will read the report will be workers who do the same job as Lucy, or professors at universities. The report will help them learn more about people with Learning Disabilities.

<u>What will happen to my personal information?</u>



Personal information is information that can be used to identify you. This includes things like your name and phone number.

The research is being looked after by the University of Liverpool. Their job is to look after your personal information and make sure it is used properly. They will keep information about you for five years after the research has finished.

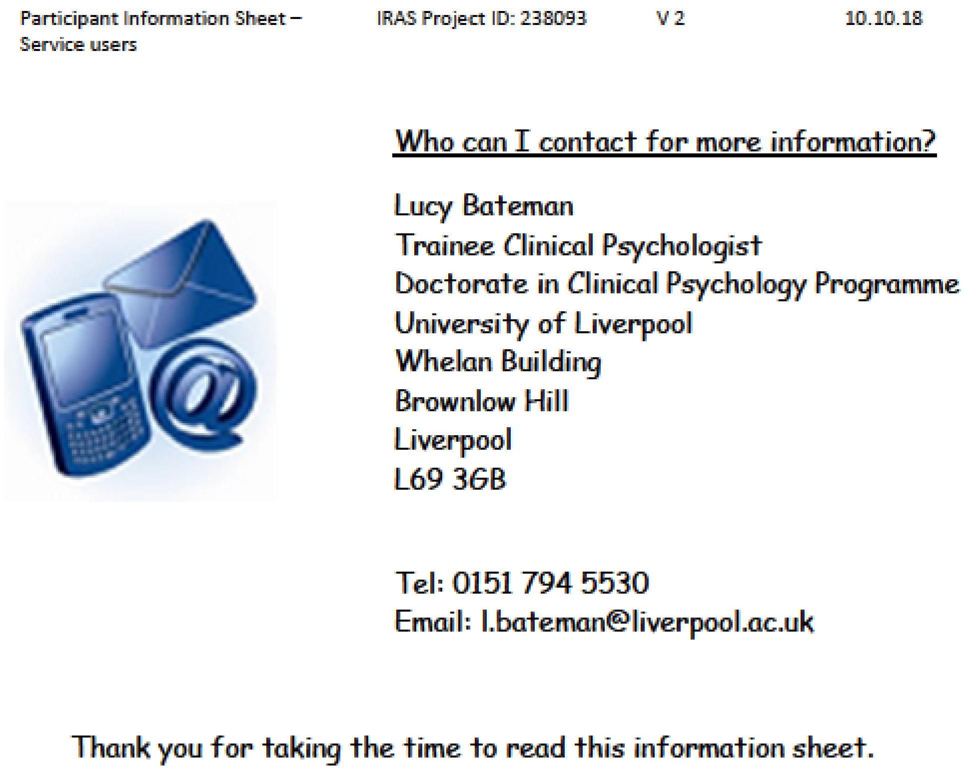
If you decide that you do not want to take part in the research, we will keep the information about you that we already have.

Lucy will keep your name and contact details confidential. She won't give them to the University of Liverpool.

Some people from the university may look at your research record to check that the research is being done properly. The people who look at this information will not be able to find out your name or contact details.

How do I get involved with the research?

Lucy will meet with you to explain the research. You can ask her any questions you like. You will have at least 7 days to decide if you want to take part. If you want to take part you will be asked to sign a form to say so.



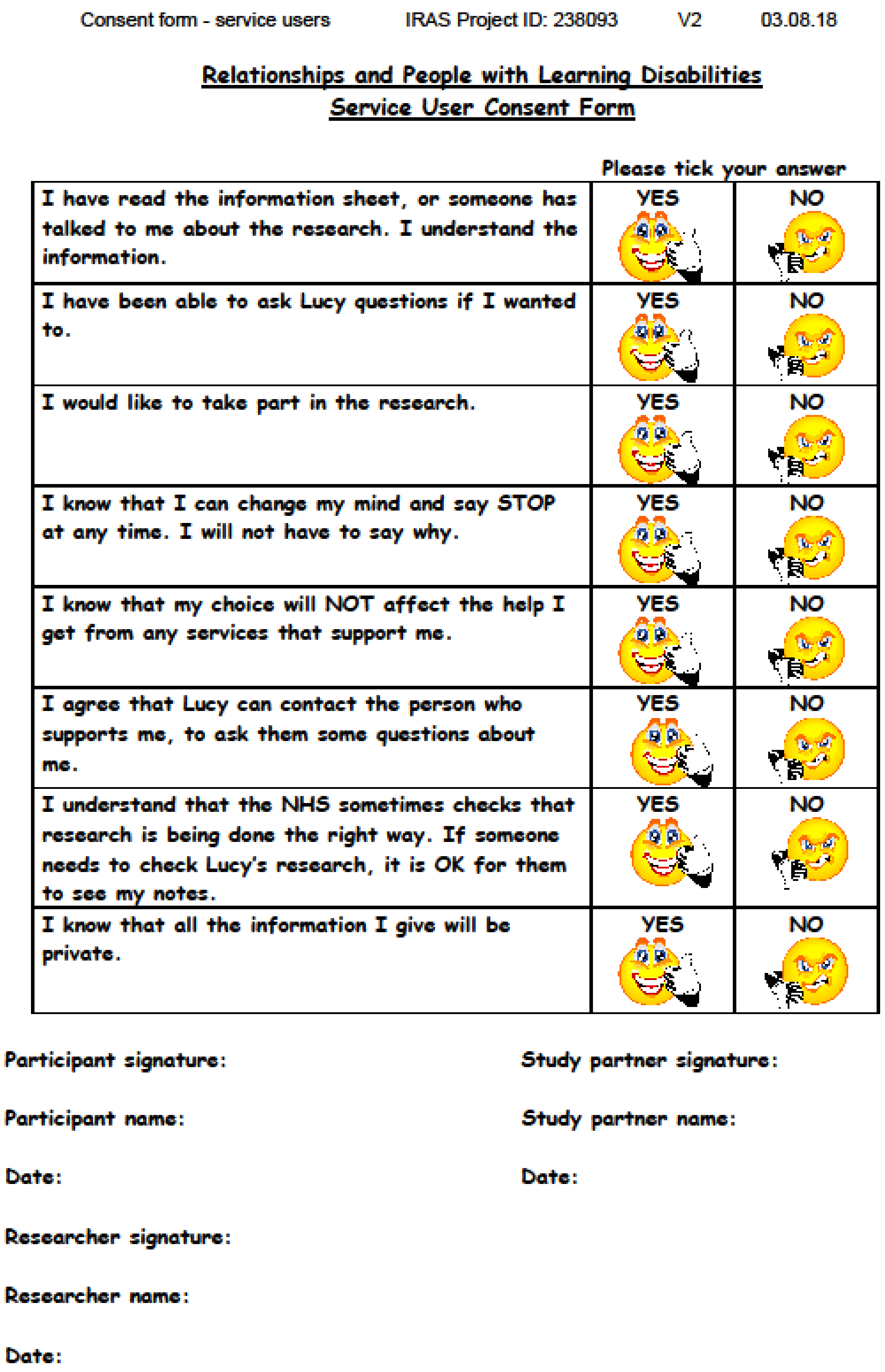
Who can I contact for more information?

Lucy Bateman
Trainee Clinical Psychologist
Doctorate in Clinical Psychology Programme
University of Liverpool
Whelan Building
Brownlow Hill
Liverpool
L69 3GB

Tel: 0151 794 5530
Email: l.bateman@liverpool.ac.uk

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

Appendix 13: Consent Form



Consent form - service users IRAS Project ID: 238093 V2 03.08.18

Relationships and People with Learning Disabilities
Service User Consent Form

Please tick your answer

I have read the information sheet, or someone has talked to me about the research. I understand the information.	YES	NO
I have been able to ask Lucy questions if I wanted to.	YES	NO
I would like to take part in the research.	YES	NO
I know that I can change my mind and say STOP at any time. I will not have to say why.	YES	NO
I know that my choice will NOT affect the help I get from any services that support me.	YES	NO
I agree that Lucy can contact the person who supports me, to ask them some questions about me.	YES	NO
I understand that the NHS sometimes checks that research is being done the right way. If someone needs to check Lucy's research, it is OK for them to see my notes.	YES	NO
I know that all the information I give will be private.	YES	NO

Participant signature:

Participant name:

Date:

Study partner signature:

Study partner name:

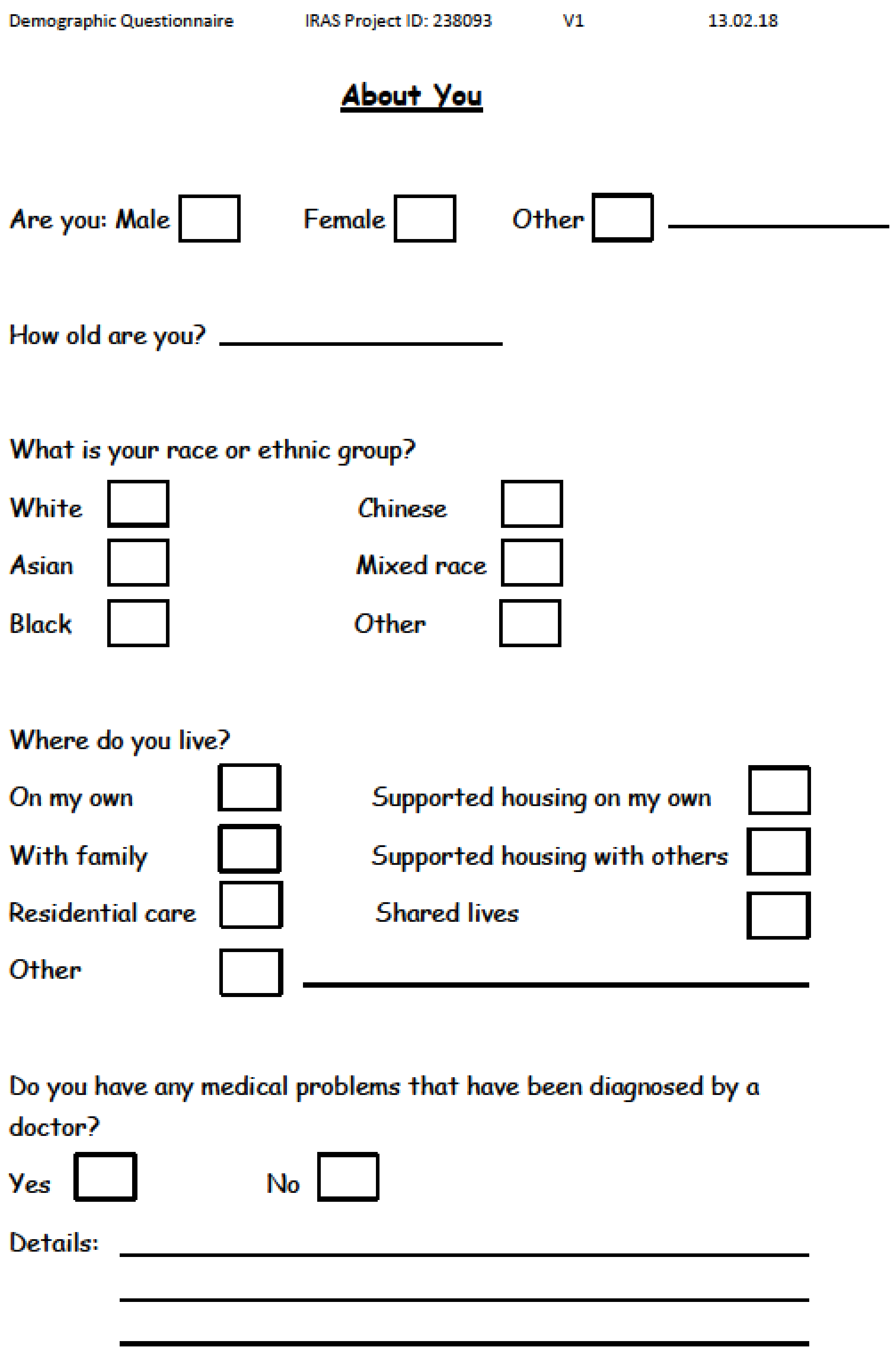
Date:

Researcher signature:

Researcher name:

Date:

Appendix 14: Demographic Questionnaire



Demographic Questionnaire IRAS Project ID: 238093 V1 13.02.18

About You

Are you: Male ☐ Female ☐ Other ☐ ____________

How old are you? ____________

What is your race or ethnic group?

White ☐ Chinese ☐
Asian ☐ Mixed race ☐
Black ☐ Other ☐

Where do you live?

On my own ☐ Supported housing on my own ☐
With family ☐ Supported housing with others ☐
Residential care ☐ Shared lives ☐
Other ☐ ____________

Do you have any medical problems that have been diagnosed by a doctor?

Yes ☐ No ☐

Details: ____________
____
____

Other than respite, have you ever lived with another family for a period of time, or in a residential school or children's home?

Yes ☐ No ☐

If yes, how long for? ______________________

Do you access any of these services?

Day centre ☐

Employment support ☐

Community Learning Disability Team: Nursing ☐

Psychology ☐

Speech & Language Therapy ☐

Physiotherapy ☐

Occupational Therapy ☐

Social work ☐

Details: ______________________

____

____

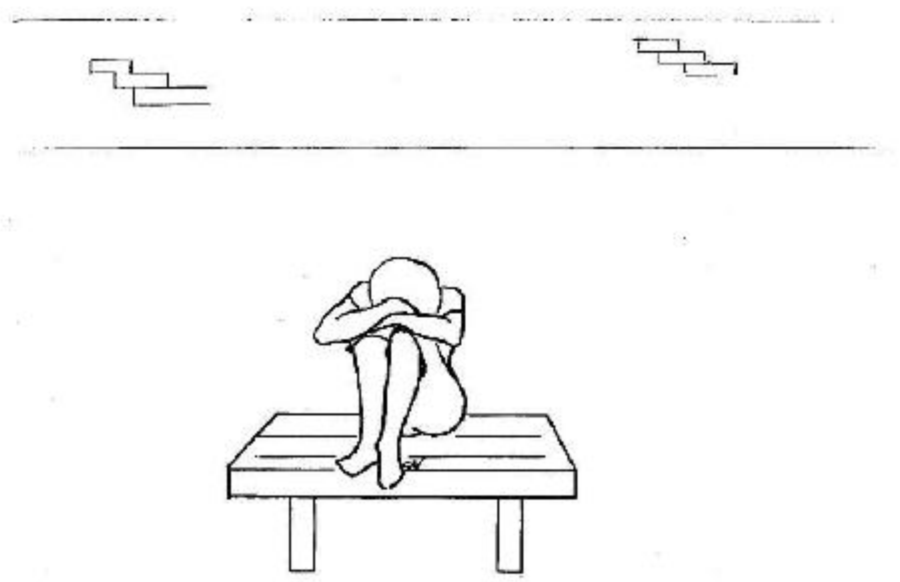
If no, why not? ______________________

____

____

Thank you for taking the time to complete this questionnaire.

Appendix 15: Example Picture Stimuli from The Adult Attachment Projective Picture System



Bench ©

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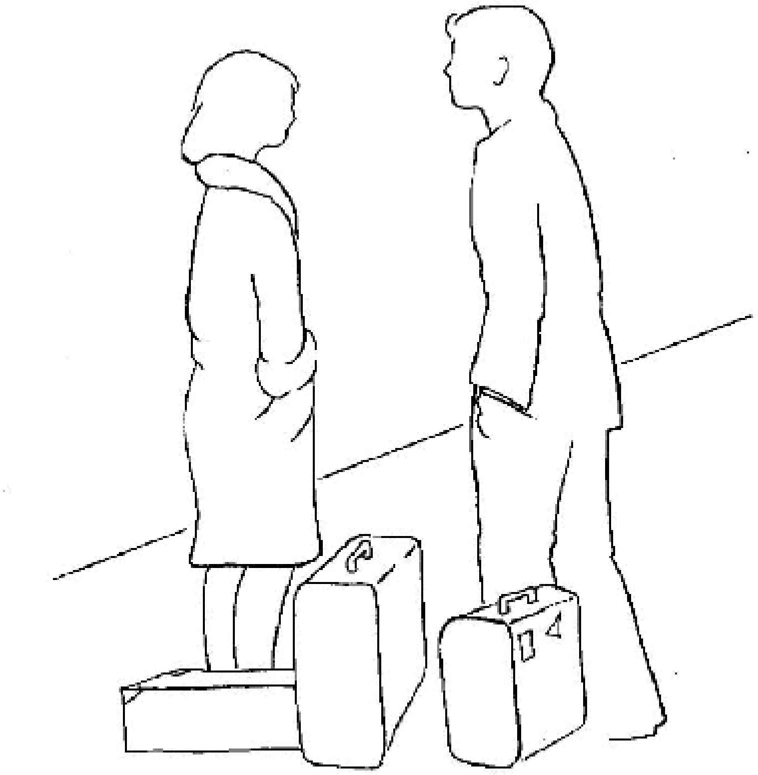
Appendix 16: Example Picture Stimuli from The Adult Attachment Projective Picture System



Departure ©

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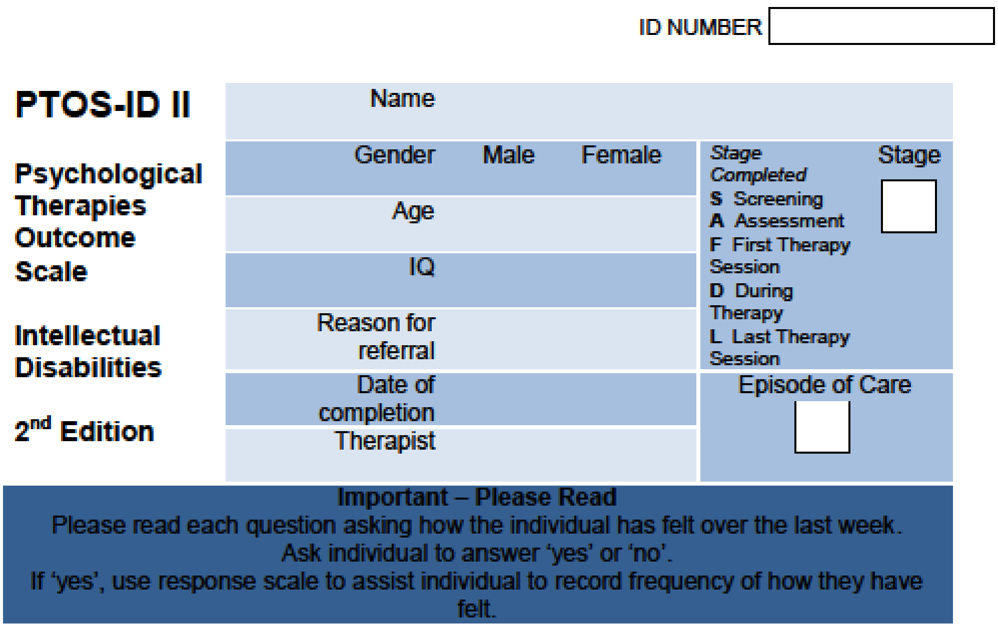
Appendix 17: Psychological Therapies Outcome Scale – Intellectual Disabilities 2nd Edition



ID NUMBER ☐

PTOS-ID II

Psychological Therapies Outcome Scale

Intellectual Disabilities

2nd Edition

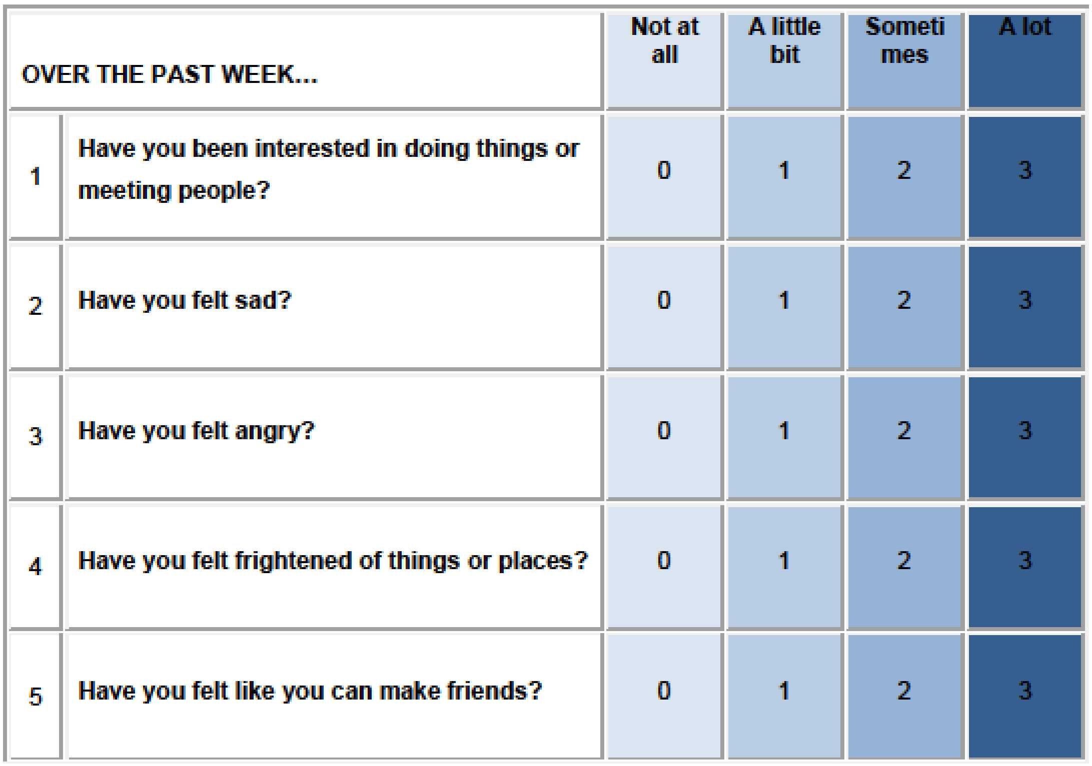
Name				
Gender	Male	Female	*Stage Completed* **S** Screening **A** Assessment **F** First Therapy Session **D** During Therapy **L** Last Therapy Session	Stage ☐
Age				
IQ				
Reason for referral				
Date of completion			Episode of Care ☐	
Therapist				

Important – Please Read

Please read each question asking how the individual has felt over the last week.

Ask individual to answer 'yes' or 'no'.

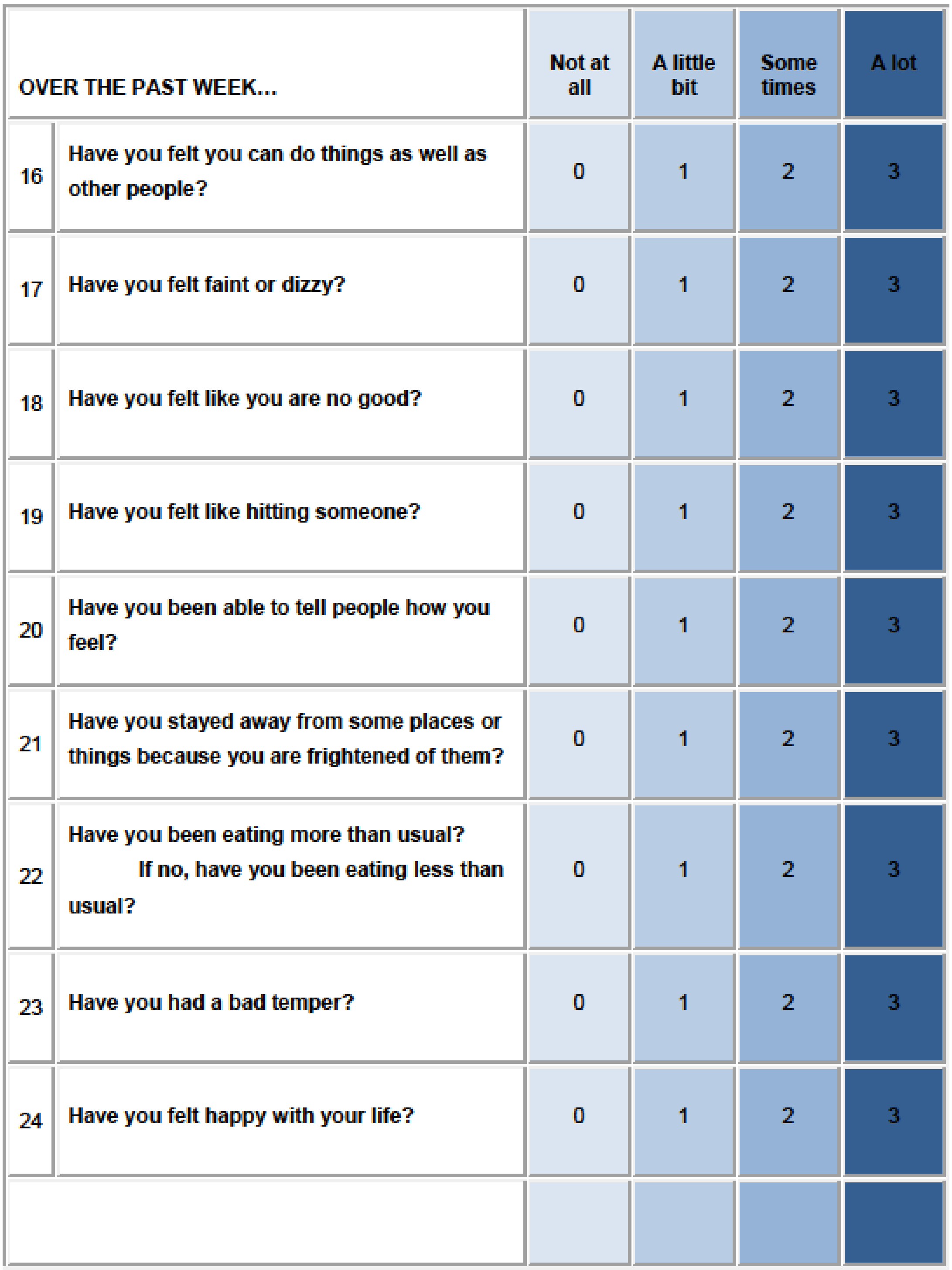
If 'yes', use response scale to assist individual to record frequency of how they have felt.



OVER THE PAST WEEK...		Not at all	A little bit	Sometimes	A lot
1	Have you been interested in doing things or meeting people?	0	1	2	3
2	Have you felt sad?	0	1	2	3
3	Have you felt angry?	0	1	2	3
4	Have you felt frightened of things or places?	0	1	2	3
5	Have you felt like you can make friends?	0	1	2	3

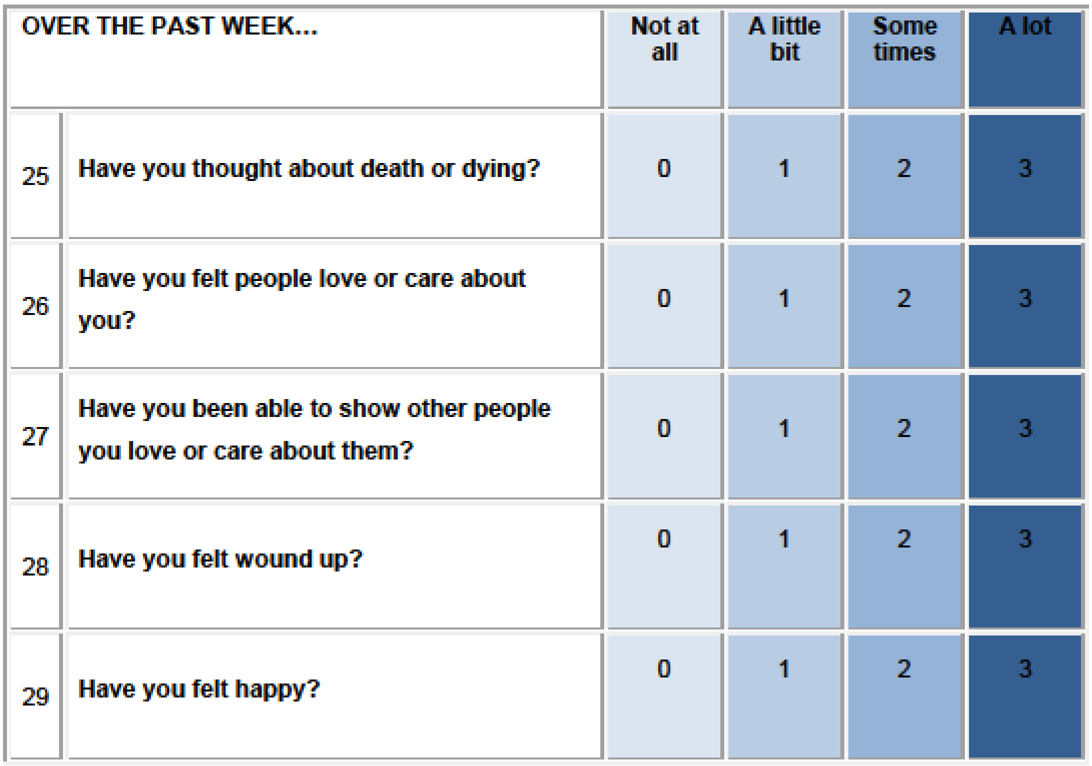
OVER THE PAST WEEK…		Not at all	A little bit	Some times	A lot
6	Have you felt annoyed?	0	1	2	3
7	Have you felt you are a good person?	0	1	2	3
8	Have you suddenly felt scared?	0	1	2	3
9	Have you felt like smashing things?	0	1	2	3
10	Have you felt anxious?	0	1	2	3
11	Have you been sleeping less than usual? If no, have you been sleeping more than usual?	0	1	2	3
12	Have you been able to cope with problems?	0	1	2	3
13	Have you checked things over and over again?	0	1	2	3
14	Have you looked forward to things?	0	1	2	3
15	Have you been able to stand up for yourself?	0	1	2	3

Jackson, Beail & Vlissides (2011) Psychological Therapies Outcome Scale – ID II



OVER THE PAST WEEK...		Not at all	A little bit	Some times	A lot
16	Have you felt you can do things as well as other people?	0	1	2	3
17	Have you felt faint or dizzy?	0	1	2	3
18	Have you felt like you are no good?	0	1	2	3
19	Have you felt like hitting someone?	0	1	2	3
20	Have you been able to tell people how you feel?	0	1	2	3
21	Have you stayed away from some places or things because you are frightened of them?	0	1	2	3
22	Have you been eating more than usual? If no, have you been eating less than usual?	0	1	2	3
23	Have you had a bad temper?	0	1	2	3
24	Have you felt happy with your life?	0	1	2	3

Jackson, Beail & Vlissides (2011) Psychological Therapies Outcome Scale – ID II



OVER THE PAST WEEK…		Not at all	A little bit	Some times	A lot
25	Have you thought about death or dying?	0	1	2	3
26	Have you felt people love or care about you?	0	1	2	3
27	Have you been able to show other people you love or care about them?	0	1	2	3
28	Have you felt wound up?	0	1	2	3
29	Have you felt happy?	0	1	2	3

Jackson, Beail & Vlissides (2011) Psychological Therapies Outcome Scale – ID II

PTOS-ID II:
Scoring

Psychological Distress

Q2
+
Q3
+
Q4
+
Q6
+
Q8
+
Q9
+
Q10
+
Q11
+
Q17
+
Q18
+
Q19
+
Q21
+
Q22
+
Q23
+
Q25
+
Q28

Total
/16
=

Positive Well-Being

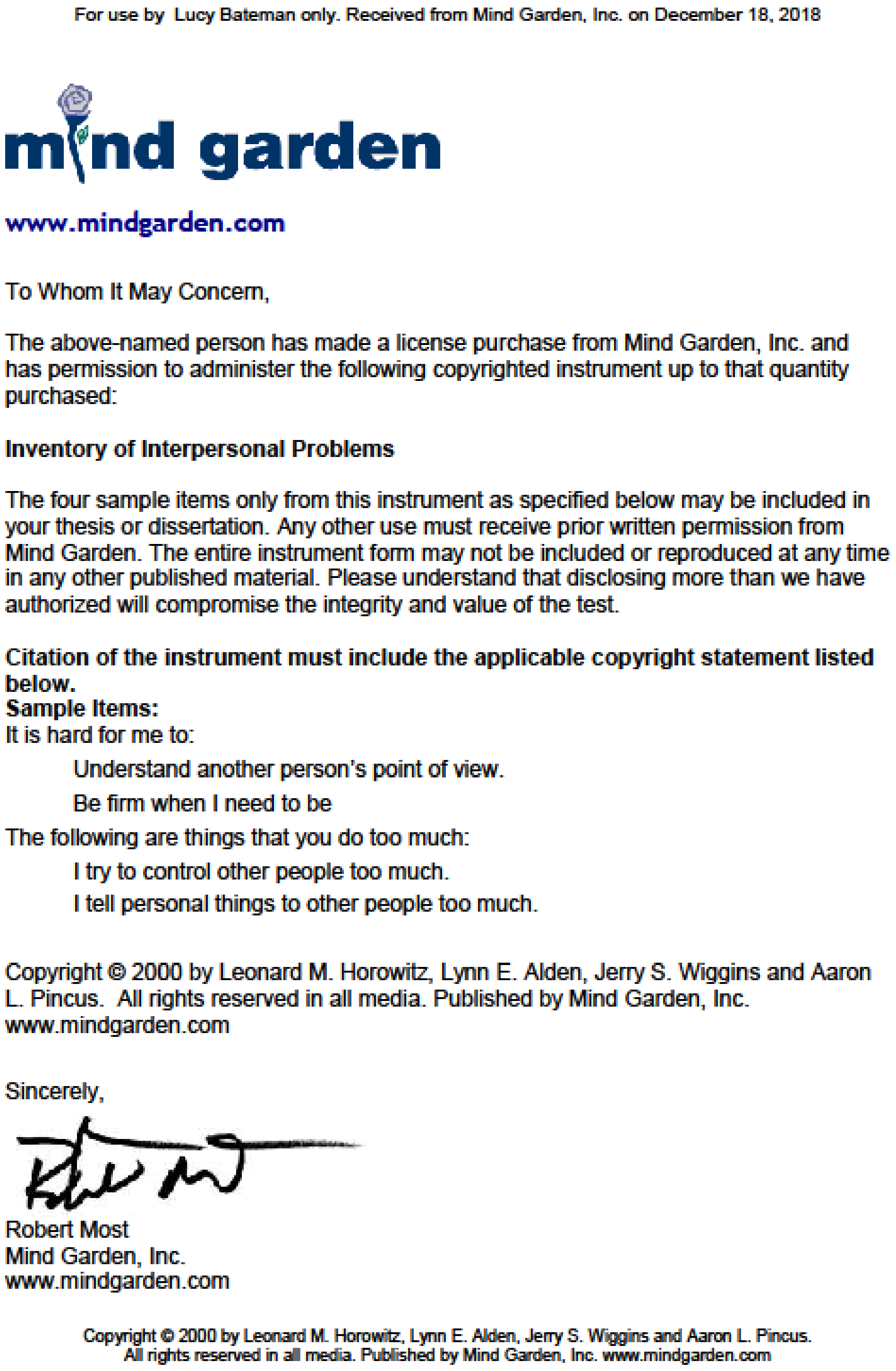
Q1
+
Q5
+
Q7
+
Q14
+
Q15
+
Q16
+
Q20
+
Q24
+
Q26
+
Q27
+
Q29

Total
/11
=

Q 12 and Q 13 do not contribute to the indexes.

Jackson, Beail & Vlissides (2011) Psychological Therapies Outcome Scale – ID II

Appendix 18: Inventory of Interpersonal Problems – Sample Items



mind garden
www.mindgarden.com

To Whom It May Concern,

The above-named person has made a license purchase from Mind Garden, Inc. and has permission to administer the following copyrighted instrument up to that quantity purchased:

Inventory of Interpersonal Problems

The four sample items only from this instrument as specified below may be included in your thesis or dissertation. Any other use must receive prior written permission from Mind Garden. The entire instrument form may not be included or reproduced at any time in any other published material. Please understand that disclosing more than we have authorized will compromise the integrity and value of the test.

Citation of the instrument must include the applicable copyright statement listed below.
Sample Items:
It is hard for me to:

Understand another person's point of view.

Be firm when I need to be

The following are things that you do too much:

I try to control other people too much.

I tell personal things to other people too much.

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Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

Appendix 19: Critical Reflection

This chapter provides a critical and personally reflective account of the research process. I have chosen to write this in the hope that readers will, by virtue of their interest in the thesis topic, be interested in some of the academic, clinical and personal learning I gained from completing the research. I have also written this as a means of helping myself understand and process some of the challenges encountered throughout the research journey, in line with my professional values of the importance of self-reflection in relation to both clinical practice and personal wellbeing. Finally, I am writing this for those who participated in the research. Their enthusiasm and commitment encouraged me to continue to pursue what at times felt like a daunting and difficult process, and I hope that these reflections will enable others to further this work that so many people passionately contributed to.

Topic Selection

I chose this particular area of research for a number of reasons. Having worked in ID services prior to training, I was aware of the paucity of research involving PWID, and was keen to produce something which, even in a small way, would help address this. I was also mindful that the research that is available, is often done ‘about’ individuals rather than ‘with’ individuals. I therefore wanted to gather data directly from PWID, rather than via a third-party or informant. I was aware of the increasing evidence base with regards to the application of attachment theory to the lives of PWID, however, noted an absence of this perspective both in clinical practice and the day-to-day support of those with ID. I therefore wanted to research something that I felt could have relevance not only for clinical practice, but for the everyday lives of PWID and those who support them. I knew that the research journey would likely contain challenges, and I felt that, for the above described reasons, picking this particular topic would sustain my interest and motivation.

The choice of topic for the systematic review stemmed naturally from the topic of the empirical paper. When selecting an appropriate attachment measure for use in the empirical study, it became apparent that whilst there were individual pieces of literature describing available measures, this information had not been collated to allow researchers to compare and contrast the measures when selecting them for use. Additionally, given the absence of the application of attachment theory to clinical practice, I hoped that providing a resource comparing available measures would aid clinicians in selecting appropriate tools, and thereby facilitate increased use of the attachment perspective in practice.

Systematic Review

The majority of the present critical reflection focuses on the empirical chapter of the thesis because there were some contextual factors which I wanted to capture, but which would not have been appropriately placed in the degree of detail necessary for the empirical chapter itself. However, this is not to say that the systematic review was without challenge, or could not benefit from revisions with the hindsight provided by its completion. These issues are discussed in the systematic review paper itself.

Empirical Study

In terms of the empirical study, many of the research stages and processes were new to me. This meant that there was some degree of uncertainty that I had to deal with, and some things which I would do differently in future research ventures.

Research Governance

The research governance process included many more stages than originally anticipated, particularly with using samples from both clinical and non-clinical settings. Lack of clarity regarding sponsorship and amendment procedures, alongside waiting for an available ethics committee resulted in approval taking longer than anticipated. This subsequently affected the commencement of recruitment. In future I would aim to begin these processes even sooner. The time taken between first approaching potential services and finalisation of the approval process was considerable, and circumstances for one advocacy group that was approached changed, meaning they were no longer able to participate. In future I would therefore seek to maintain relationships and contacts with potential recruitment sources to an even greater degree, to help ensure that the project was held in mind alongside their many other commitments.

Recruitment

The biggest challenge to the study was recruitment. The initial plan was to recruit from services in which I had already established contacts, in the hope that this would facilitate participation. Three community services in a geographical area in which I had worked previously were approached, and all agreed to share the information with individuals after having been told about inclusion/exclusion criteria. However, once the ethics process had been undertaken, these services said that they were unable to identify any individuals who didn’t have past/current contact with psychological services. This meant that alternative sources for the non-clinical sample had to be sought, and appropriate governance amendments to the project processed. With their understanding and interest in the study, two advocacy groups were added as recruitment sites; however, one of these were not able to commit to the project later down the line, due to other commitments. A further advocacy group therefore had to be added as a recruitment site, which resulted in further delay. Two National Health Service (NHS) trusts had agreed to support the study in terms of identifying the clinical sample; however, the number identified for this side of the sample continued to be small, and a decision was made to add another NHS trust in the hope of increasing the number of people recruited. Once accessed, there were a number of differences in recruiting from advocacy groups in comparison to the NHS. The first of these related to the number of layers of ‘system’ one had to navigate to reach individuals. In the community, the research process involved liaising with those who facilitate the advocacy group before I could meet with individuals. In the clinical settings, there was contact with psychological professionals, service managers, team leaders, and support staff to navigate before being able to make contact with the person. This mirrors Stalker’s (1998) experience of conducting research in ID settings, where the hierarchical structure of services means that the individual themselves are often consulted later than those who support them. This could have impacted recruitment in some cases, with decisions being made by the ‘system’ that the individual was not psychologically ‘well enough’ to take part, or that the process would be confusing for them, for example. Where such explanations were given, discussions were held to ensure that those who were eligible were able to participate if they wished, whilst being mindful of the individual’s wellbeing and the often well-meaning views of those supporting them.

Such examples also highlight a further challenge to recruitment, namely that of the topic area under investigation. There was often concern in the system that the picture stimuli in the attachment measure would be distressing for clients, notwithstanding explanations about the projective nature of the measure, alongside evidence contradicting this supposed distressing nature, from previous participants and clients who had engaged with the AAP. This attempt to protect PWID from distress likely serves to prevent their participation in research, and facilitates a wider held narrative that PWID should not be allowed to experience negative emotions, or should not have these feelings at all.

The vast majority of potential participants I met took part in the study, which was encouraging. The small number of those who did not go on to participate demonstrated interest in the study, and the reasons for them not taking part were due to circumstantial changes (e.g., hospital admission, change in support hours) rather than an uncertainty or unwillingness to engage with the research itself. This was very encouraging in terms of considering future research.

Sample Size

The challenges relating to the research governance and recruitment processes meant that the sample size was smaller than originally desired. Based on guidelines suggesting that 15 participants per group is acceptable to detect existing effects (Sevilla et al., 1992), a desired number of 15 participants per group was aimed for, and when this was not close to being met, a decision was made to extend the time available for recruitment as well as the submission date for the thesis. Whilst this was a difficult time in the research, I feel this was the correct decision, as it allowed additional time in which a significant proportion of the sample were recruited. Given the time and efforts required to obtain the final sample size, I am pleased with the final numbers as this felt close to unachievable at points. It should be acknowledged however, that the small sample influenced the analyses that could be undertaken. Use of non-parametric tests comes with a number of factors for consideration including lower statistical power leading to increased chance of Type II errors (Ogee et al., 2016). Whilst it was disappointing not to be able to conduct more sophisticated analyses, it was important to recognise the limitations of the sample size in terms of power, the ability to detect effects, and the subsequent utility of any such analyses conducted without sufficient power.

Measures

There were a number of challenges to using the IIP-32 (Horowitz et al., 2000) with participants. Whilst it has been used with PWID (Kellett et al., 2005), the literature on the assisted completion procedure employed in order to do so was limited. I therefore used clinical judgement and experience in supporting PWID in order to support them to complete the measure, whilst retaining its validity. This primarily involved use of a visual representation of the Likert response scale and reading out the questions to participants rather than having them read them themselves. Differentiating between five points on the Likert scale was challenging for some participants, and there may therefore have been a tendency for individuals to use the mid-point and either end of the scale when responding. Further, the wording of the items may not be accessible for some, as it includes double negatives and requires the respondent to switch from thinking about things they find difficult to do, to things they do too much. This second concept may have been particularly difficult for some participants, as the self-appraisal required is more cognitively complex than that required in the first concept of things they find difficult to do. There was also the possibility that social desirability may have played a part in people’s responses to the items, with them not wanting to be seen as “too aggressive” or “too controlling”, or concerns that responding positively to these items may have resulted in a change of care.

Whilst there is a growing body of evidence with regards to the utility, validity and reliability of the AAP for use with PWID (Gallichan & George, 2014, 2018), there are a number of factors which require consideration in the context of this study. Whilst anecdotal, I noticed a tendency for those in the clinical sample to give greater detail in their responses. Aside from the potential bias in my perception of participants’ responses brought about by the impossibility of my being blind to group membership, this could have been due to more significant attachment phenomena being present and activated in the clinical sample, which could be hypothesised to be the case given the psychological distress which placed them in this sample. However, an alternative explanation could be that those in the clinical sample were ‘primed’ in terms of the process of completing psychological assessments. On explaining my role as a Trainee Clinical Psychologist, the clinical sample were immediately able to relate to this, having seen a psychological professional. This meant that they had both a greater understanding of the use of psychological assessments, but also may have set up an expectation that they share experiences in the same way they would do in therapy. Whilst I was mindful of explaining my role as a researcher as explicitly as I could to participants, in terms of me not being there to provide therapeutic support, it is possible that the above factors impacted the degree of information shared by each group.

Researcher Role

As alluded to earlier, undertaking the role of researcher rather than clinician was challenging at times. This was particularly the case when interacting with participants from the clinical sample. Some had a tendency to seek advice and support regarding emotional experiences, and given that they had seen individuals with a similar job title to me previously, and likely were experiencing difficulties in these areas by nature of them accessing clinical services, such seeking of support was understandable. Whilst I tried to explain my role as researcher as explicitly as possible and remain boundaried at all times, this was a learning process as it also felt important to acknowledge and empathise with what people told me. As all such individuals were accessing clinical services, this was managed in a practical way, by advising that they contact the clinician supporting them to ask for any advice required. On the one occasion where risk information was disclosed, I passed this directly to the involved clinician, and a discussion took place in which it was confirmed that the clinician and service were aware of, and working to support and manage, the risk.

Implications for Future Research

I hope that rather than discourage, the above factors and associated reflections will encourage others to conduct research in this area. To do so will require both practical and emotional preparedness. Firstly in relation to the research process, including navigating governance and ethical procedures and dilemmas, and doing this as soon as absolutely possible. Whilst I was aware these things would take time, in future I would initiate them even sooner to allow for the inevitable ‘bumps in the road’. Secondly, with regards to recruitment, including maintaining contact with recruitment sources as much as practicable, and being aware that navigating the ‘systems’ surrounding PWID not only takes time, but employment of good interpersonal skills. These factors were found to help in developing relationships and challenging any barriers to accessing potential participants. As is the case with most research with PWID, use of a larger sample would help better establish experiences of attachment, psychological distress and interpersonal functioning in clinical versus non-clinical samples, which in turn would assist in considering the most effective interventions. Further work on the development of measures for use with those with ID would also help ensure the reliability and validity of research conducted, and strengthen the ability of research to inform clinical practice.

At the start of this research journey, I was informed that the challenges to conducting research in ID were very real. Whilst I felt I had a good appreciation of this, one challenge that I was not prepared for was encountering narratives about how the difficulties in my study exemplified why so little research is conducted with PWID. I was determined to meet the challenges to my study to the best of my ability, and in doing so I hope to leave the reader with an alternative narrative: that the challenges experienced in my research are the very reason we should do more, not less.

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