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Working with Trauma:
Perceived Competence and Burnout in Mental Health Staff

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Working with Trauma: Perceived Competence and Burnout in Mental Health Staff

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Bangor University

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Thesis submitted in partial fulfilment of the requirements for the degree of Doctorate of Clinical Psychology

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Section One

Thesis Summary

This thesis consists of three papers that explore the impact on staff of working with survivors of trauma, and their preparedness to work with this client group. The first paper is a literature review investigating levels of burnout in mental health staff working with trauma. 21 papers were included in the review. These demonstrated that staff working exclusively with trauma have higher levels of burnout, specifically exhaustion, when compared with other mental health staff. The literature did not indicate that amount of secondary exposure to trauma is related to burnout in staff working in general mental health services. The second paper presents findings from a quantitative research study, exploring the relationship between training, knowledge and perceived competence amongst mental health staff working with survivors of complex trauma. This cross sectional survey indicated that clinicians had low levels of knowledge about complex trauma and its treatment. However, there was a moderate relationship between training and levels of knowledge. Both training and supervision were related to clinicians perceiving themselves as more competent in working with this client group and these relationships were fully mediated by clinicians' perceptions of their knowledge. The third paper integrates the findings from the literature review and empirical study and considers their theoretical implications alongside recommendations for further research. The clinical implications from the aforementioned papers are then considered, with recommendations that services better equip staff to work with trauma to improve the quality of care provided by services.

Declarations

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Finally I would like to express my gratitude to Dr Karen Parkhill, Dr Susan Allan and my fellow trainees for their support and encouragement at every stage.

Section Two: Literature Review

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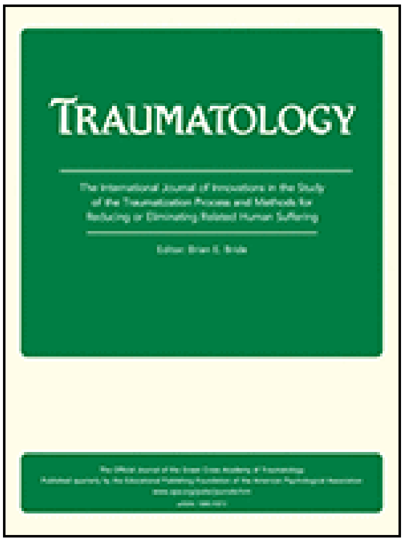
Traumatology



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Burnout in Mental Health Professionals Working with Trauma

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Abstract

Background: Working with trauma can be an especially emotionally demanding form of work within mental health services. Demands and workload have been linked with burnout, and this is a recognised concern within mental health services. *Aims:* The current paper aims to systematically review the literature on burnout in trauma therapists to establish the levels of burnout in this staff group. In addition, the paper will review the literature that investigates the relationship between secondary trauma exposure and burnout. *Method:* Three databases were searched for papers that reported burnout in trauma therapists working with adults. Papers were included if they reported the relationship between trauma exposure and burnout or if they reported a measure of burnout in trauma specific therapists. *Results:* A total of 21 papers were included in the review. These indicated that levels of burnout are higher in mental health professionals working in trauma specific services but there was no clear relationship between burnout and level of trauma exposure in general mental health professionals. Findings were limited by methodological shortcomings in the included papers and a lack of consistency in the measurement of burnout. *Conclusions:* Staff working in trauma specific services are at higher risk of burnout than staff in general mental health services. However, the field would benefit from further research into the specific variables within these services that influence staff risk of burnout.

Keywords: trauma, therapist, burnout, systematic review.

Introduction

Burnout is especially relevant for staff working in human service occupations and was originally considered to be a consequence of working in environments within which interpersonal relationships were integral to the role (Maslach & Jackson, 1981). Burnout, as conceptualised by Maslach and Jackson (1981), encompasses three separate domains, the primary element of which is *exhaustion*. This is proposed to result from depleted resources leading to subsequent physical and emotional exhaustion. Burnout is also considered to have an attitudinal component with the dimension of *depersonalisation* or *cynicism* relating to the tendency for staff to distance themselves from the individuals they work with. In non-human services, this factor of burnout is demonstrated by cynical attitudes towards work (Schaufeli & Leiter, 1996). The third factor of burnout relates to individuals' shifting attitude to themselves and their abilities, becoming more negative. This has been labelled as *reduced personal accomplishment* or *reduced personal efficacy*.

Burnout in Mental Health Services

Burnout is a concern for staff in mental health services, with recognised detrimental effects on clinicians, services and service users (Morse, Salyers, Rolins, Monroe-DeVita & Pfahlar, 2012). Within mental health services, studies in the UK have indicated high levels of burnout as demonstrated by levels of emotional exhaustion measured using the Maslach Burnout Inventory (MBI; Onyett, Pillinger & Muijen, 1997).

In general nursing and in mental health services, levels of burnout have been found to correlate with lower patient satisfaction (Aiken et al., 2012; Garman, Corrigan & Morris, 2002) and lower quality of care (Salyers et al., 2015). Burnout is also detrimental to services and has been linked to lower job satisfaction (Prosser et al.,1997), absenteeism (Pines & Maslach,

1978) and intention to leave the workplace (Acker, 2004). As well as employment related concerns, there are also links between burnout and staff mental health, including higher levels of depression, anxiety, sleep difficulties and substance misuse (Ahola et al., 2005; Rohland 2000).

Predictors of Burnout

Considerable research has been undertaken exploring the predictors of burnout, and there is consistent evidence that environmental, individual and client factors play a part. High caseloads and a lack of supportive environments are linked with higher staff burnout (Hannigan, Edwards, Coyle, Fothergill & Burnard 2000; Hannigan, Edwards & Burnard, 2004), as well as a lack of appropriate training and poor management or leadership (Crawford, Adedeji, Price & Rutter, 2010). Individual staff differences have also been linked to burnout, with women reporting higher levels of emotional exhaustion (Purvanova & Muros, 2010) and some professions appearing to be at a higher risk of burnout than others. For example, psychiatrists have been found to be at higher risk of depersonalisation and emotional exhaustion (Kumar, Fischer, Robinson, Hatcher & Bhagat, 2007) and social workers have been found to be at higher risk of emotional exhaustion (Lloyd, King & Chenoweth, 2002; Onyett et al., 1997).

Client factors, such as clients who are considered difficult to work with are found to relate to higher levels of burnout (Hannigan et al., 2004), as have unrealistic expectations of change (Melchior et al., 1996). Higher levels of emotional demands and higher levels of emotional dissonance have been found to correlate with both higher emotional exhaustion and depersonalisation (Bakker & Heuven 2006; Xanthopoulou, Bakker, Demerouti & Shaufeli, 2007). As a result, staff in mental health services may be at higher risk of burnout as a result of the emotional demands of the role (Awa, Plaumann & Walter, 2010; Zapf, Deifert, Schmutte, Mertini & Holz, 2001).

Burnout and Trauma

Within mental health services, many clients will have experienced previous traumatic events (Davidson & Smith 1990) and working with trauma may be a particularly emotionally demanding task. Staff working with survivors of sexual violence have reported challenges around the emotional distress associated with listening to traumatic accounts, as well as dealing with their own negative emotions towards perpetrators (Schauben & Frazier, 1995). Iliffe & Steed (2000) interviewed clinicians working with survivors of domestic violence and found that most clinicians reported experiencing visual imagery of the traumatic material they heard leading to personal distress. Given this relationship between emotional demands and burnout, staff burnout is a particular concern in this field.

Secondary Traumatic Stress

Within the trauma specific literature there has been increasing recognition of the impact of working with trauma on staff. The terms secondary traumatic stress (STS), vicarious traumatisation (VT) and compassion fatigue (CF) have been proposed to encapsulate the effects of indirect exposure to trauma, such as when clinicians engage with service users recounting traumatic events. Although often used interchangeably in the literature, there are differences in theoretical conceptualisation of these constructs (Newell & MacNeil 2010). STS originally referred to the presence of symptoms in clinicians similar to those of Post Traumatic Stress Disorder following indirect exposure to trauma (Salston & Figley 2003). In contrast, VT refers to the cognitive and schematic changes in clinicians following secondary exposure to trauma (McCann & Pearlman 1990). Burnout is explicitly recognised as one of the potential consequences of working with trauma within the proposed definition of CF (Figley 1995), and the construct of compassion fatigue includes elements of both STS and burnout. However, burnout as conceptualised from the CF literature, and measured from this perspective, focuses more on depersonalisation aspects rather than the exhaustion dimension of burnout (Maslach, Leiter & Schaufeli 2008).

Although there are differences in the theoretical constructs of STS, VT, CF and burnout, these have been considered to be partially overlapping (Jenkins & Baird 2002) and Voss Horrell, Holohan, Didion and Vance (2011) have suggested that these may represent a homogenous group of responses to secondary trauma exposure. A meta-analysis of studies has concluded that as much as 48% of the variance between the constructs is shared (Ceislak et al., 2014). Furthermore, research into these constructs has found that STS and VT correlate less highly with each other than with burnout. Therefore, it has been suggested that measures of STS and VT may be tapping into a broader construct of burnout rather than more trauma related symptomology (Devilly, Wright & Varker, 2009).

Previous Reviews

Given the potential for burnout in clinicians working with trauma indicated by the literature, this is an important area of further study. A number of previous reviews have been published exploring the impact of working with survivors of trauma. However, many of these are narrative rather than systematic reviews of the literature (Arvay, 2001; Canfield, 2005; Hesse, 2002). Although more rigorous systematic reviews have been undertaken, these frequently do not focus specifically on burnout, rather looking at the wider conceptualisation of secondary traumatic stress (Baum, Rahav & Sharon, 2014; Bride, 2004; Hensel, Ruiz, Finney & Dewa, 2015). A recent meta-analysis, which investigated the relationship between STS and burnout in staff working with trauma survivors, went some way to address these issues

(Ceislak et al., 2014). The review found a significant relationship between these constructs; however, it did not differentiate between staff working therapeutically with trauma and staff exposed to trauma survivors in a medical context. In addition, studies were included based on reports of working with trauma rather than including rigorous criteria regarding what defines a trauma therapist. Whilst this was appropriate for the aims of their review, it does not allow for estimates to be made of the levels of burnout in therapeutic staff working specifically with trauma.

Aims

This review aims to address these gaps by exploring the levels of burnout in mental health professionals working specifically with trauma. In addition, the review will explore the relationship between secondary exposure to trauma and burnout. This will be done in two ways: firstly by comparing the levels of burnout in staff working specifically with trauma when compared non-trauma specific staff groups; secondly, the review will report the relationship between levels of indirect trauma exposure and burnout in non trauma specific staff. This will include burnout conceptualised as an exhaustion based phenomenon resulting from work stressors, and when considered as a response to secondary exposure to trauma.

Method

Search Strategy

A systematic literature search of PsycInfo, PILOTS and CINAHL was carried out for peer-reviewed articles published on or before 31st January 2016. The following search terms were used: (*"compassion fatigue" OR burnout) AND trauma*)* which identified a total of 583 articles. A manual search of reference lists of relevant reviews and articles resulted in the identification of an additional 14 studies.

Inclusion and Exclusion Criteria

The titles and abstracts of identified articles were screened for inclusion according to the following criteria. (1) Studies were published in English (2) Participants were mental health professionals working primarily with adults who had experienced trauma. (3) A measure of burnout was included in the study. Where burnout was reported to have been measured but was not reported, the original authors were contacted to request this information. (4) If multiple studies reported the same data, only one paper was included. In these instances, the article that provided the most complete data set relating to trauma work and burnout was included for further analysis. (5) Studies that focused on staff engaged in brief trauma interventions, such as crisis response work, were excluded. As burnout is hypothesised to be a response to prolonged stressors in the workplace (Maslach, 2003), staff who worked only briefly in this environment may not be impacted to the same extent as those engaged in more long term work with trauma survivors.

Defining Trauma Work

Given that most mental health professionals, if not all, can expect to come into contact with clients who have experienced trauma, work with trauma clients alone was not sufficient to warrant inclusion in the current review. Studies that focused on clinicians working specifically with traumatised clients were included as were studies that reported relationships between indirect trauma exposure and burnout. Studies focusing on clients who had experienced bereavement or serious illness were not included as these were viewed as severe stressors rather than trauma.

Included Studies

Following screening, a total of 89 papers were identified. The full text articles were then examined according to the above criteria resulting in 21 articles being included in the final review. This consisted of 12 papers focusing on therapists working primarily with trauma and an additional 9 papers that reported relationships between trauma exposure and burnout. Figure 1. outlines the search process and reasons for exclusion in more detail using PRISMA reporting standards (Moher, liberati, Tetzlaff & Altman, 2009).

<Insert Figure 1>

Outcome Measures

Burnout was assessed using a range of outcome measures. The primary measure used was the Maslach Burnout Inventory (MBI), which conceptualises burnout as a response to job related strains leading to exhaustion, depersonalisation or cynicism, and reduced sense of self-efficacy (Maslach et al., 2008). There are a number of versions of this scale available, including translations into numerous languages and versions aimed at specific staff groups. The included studies used the MBI Human Services Survey (MBI-HSS; Maslach & Jackson, 1981), MBI General Survey (MBI-GS, Maslach, Jackson & Leiter, 1996) and the Dutch and German versions of the MBI HSS (MBI-NL and MBI-D; Bussing & Perrar, 1992; Schaufeli & Van Dierendonck, 1995). The different versions of the MBI have all been found to have good internal consistency, with Cronbach’s α values ranging from 0.71 to 0.90 (Bussing & Perrar 1992; Maslach et al., 1996; Schaufeli & Van Dierendonck, 1995).

The remaining measures that conceptualised burnout as stemming from work related stress, were the Copenhagen Burnout Inventory (CBI; Kristensen, Borritz, Villasden & Christensen, 2005) and the Pines Burnout Measure (Pines, Aronson & Kafry, 1981). These focused on the single factor of exhaustion. The Oldenberg Burnout Inventory (OLBI;

Demerouti & Bakker, 2008) includes the factors of exhaustion and disengagement. These have all been found to have good internal reliability with Cronbach's α values of between 0.81 and 0.92 (Halbesleben & Demerouti, 2005; Kristensen et al., 2005; Pines et al., 1981).

The Compassion Fatigue Self-Test (CFST) is a measure of compassion fatigue (Figley, 1995). This measure has been revised and renamed on a number of occasions including the addition of a compassion satisfaction subscale (The Compassion Satisfaction/Fatigue Test (CSF; Stamm 2002) and the Professional Quality of Life Scale (ProQOL; Stamm 2005). These measures all include a burnout subscale and conceptualise burnout as a consequence of secondary exposure to trauma with less of a focus on exhaustion, and more emphasis on changes in an individual's emotional and cognitive appraisals. Again, these scales have been found to have good internal consistency with Cronbach's α ranging from 0.73 to 0.90 (Figley & Stamm, 1996; Stamm, 2002; Stamm 2005).

Quality Assessment

A measure of study quality was developed specifically for the current review given the lack of measures available for quality assessment of cross sectional studies (Appendix A). This was designed by combining and adapting items from pre-existing scales, including the scale developed by Downs and Black (1998) and the Joanna Brigs Institute Prevalence Critical Appraisal Tool (Munn, Moola, Ritano & Lisy, 2014). All studies were rated by two raters. When discrepancies existed, the rating was agreed through discussion.

Results

Description of Studies

All of the studies were cross sectional with the exception of Shoji et al., (2015) and Collins & Long (2003) who employed a longitudinal design. Where reported, the percentage of female respondents was higher across the studies as would be expected given the higher percentage of females typically found working in mental health services. Studies included a range of professional groups, and 14 studies used samples of mixed staff groups, including social workers, nurses, psychiatrists, counsellors, occupational therapists and psychologists. Two studies included a small percentage of non-clinical staff in the samples (<30%; Collins & Long 2003; Kjellenberg, Nilsson, Daukantaite & Cardena, 2014). Studies were also carried out in multiple countries, including Israel (n=1), Canada (n=3), Australia (n=4), Europe (n=6) and USA (n=7).

Response rates ranged from 27% to 70%, however, most of the studies had a response rate of less than 50%. In three of the studies the response rate was based on an estimate (Devilly et al., 2009; Garcia et al., 2015; Kjellenberg et al., 2014) and four studies failed to report a response rate (Baird & Jenkins, 2003; Ben-Porat & Itzhaky, 2011; Collins & Long, 2003; Sodeke-Gregson, Holttum & Billings, 2013)

The general characteristics of the 12 studies that reported burnout in clinicians working solely with trauma are reported in Table 1.

<Insert Table 1>

Levels of Burnout in Trauma Therapists

A range of burnout measures were reported although most studies used versions of the MBI and reported the three separate subscales scores. Baird & Jenkins (2003) also reported the total MBI score. This is not considered to be a valid measure of burnout (Maslach et al., 2008) and this data was not included for further analysis in this review. The remaining studies reported a single factor of burnout. The was no information available on cut off or normative scores for the Pines Burnout Measure used by Ben-Porat and Itzhaky (2011) due to idiosyncrasies in this scoring of this measure. As such, the following results relate to levels of burnout in the remaining 11 studies.

Findings were mixed with regard to overall levels of burnout. Levels of emotional exhaustion across the studies using the MBI measure tended to be highest with all studies reporting this as high or average. In contrast, scores on the personal accomplishment and depersonalisation subscales on the MBI tended to be varied, with high, average and low levels reported across the studies. For CF measures of burnout, these demonstrated low levels of burnout with the exception of Kjellenberg et al. (2014).

Trauma context varied across the studies, including war and torture survivors (n=4), sexual violence and domestic violence survivors (n=4), veterans' services (n=1) and non-specific services (n=3). The mean levels of burnout varied across these groups with staff working with survivors of torture reporting the highest levels of burnout and staff working with survivors of sexual and domestic violence reporting the widest variation in burnout scores, with a number of these falling in the low range.

The mean level of burnout in therapists, along with norms drawn from relevant comparison samples, is summarised in Table 2. Studies are grouped according to the measure of burnout reported. Where sufficient data was available, *t*-tests have been carried out to test for significant differences between the samples.

<Insert Table 2>

Emotional Exhaustion

Emotional exhaustion was higher in staff working specifically with trauma for all studies except Baird and Jenkins (2003). Four studies reported this difference to be statistically significant (Deighton, Gurris & Traue, 2007; Johnson & Hunter, 1997; Kadambi & Truscott, 2004; Smith, Kleijn, Trijsburg & Hutschemaekers, 2007), in two studies this difference was not significant (Baird & Jenkins, 2003; McLean, Wade & Encel, 2003), and in one study it was not possible to test for statistical significance (Garcia et al., 2015).

Depersonalisation and Cynicism

The comparisons between burnout in trauma specific and non-trauma specific staff groups were less clear for the dimension of depersonalisation. Depersonalisation was found to be significantly lower in one study (Baird & Jenkins, 2003) but was significantly higher in one (Deighton et al., 2007). In the remaining four studies that tested for significance, there was no significant difference (Johnson & Hunter, 1997; Kadambi & Truscott, 2004; McLean et al., 2003; Smith et al., 2007). This suggests that there are no clear differences in this construct between staff in trauma specific services and general services.

Personal Accomplishment

Lower scores of personal accomplishment relate to higher levels of burnout (Maslach et al., 1996). In the included studies, personal accomplishment was significantly higher in trauma specific staff groups in four studies (Baird & Jenkins, 2003; Deighton et al., 2007; Kadambi & Truscott 2004; Smith et al., 2007). In one study there was no significant difference (Johnson & Hunter, 1997) and in one study this was significantly lower (McLean et al., 2003). This indicates that although staff may have high levels of exhaustion, they have not become cynical and perceive a sense of accomplishment in their work.

Single Factor of Burnout

For the five studies that measured burnout as a single factor, data from comparison samples was available for four of these (Birck, 2001; Buchanan, Anderson, Uhlemann & Horwitz, 2006; Collins & Long, 2003; Kjellenberg et al., 2014). Of these, one study found that there was no significant difference in levels of burnout for trauma specific staff compared with a sample of human services staff (Kjellenberg et al., 2014). However, the remaining three studies found that burnout was significantly higher in trauma specific staff than a sample of mental health staff (Birck, 2001; Buchanan et al., 2006; Collins & Long, 2003).

Burnout and Indirect Exposure to Trauma

A general description of studies which did not include a trauma specific population but which reported the relationship between staff burnout and levels of exposure to trauma are reported in Table 3.

<Insert Table 3>

Nine relevant studies were identified. These reported burnout in therapists who were not working exclusively with trauma clients. In these studies, indirect exposure to trauma was measured in a variety of ways. Frequency of indirect exposure was measured using a Likert type scale (Shoji et al., 2015), using the number or percentage of trauma clients on a caseload (Adams, Boscarino & Figley, 2006; Craig & Sprang 2010; Devilly et al., 2009; Schauben & Frazier 1995; Sodeke-Gregson et al., 2013) or the number of hours per week working with clients who have experienced trauma (Arvay & Uhlmann, 1996; Robinson, Clements & Land, 2003). One study also assessed the relationship between the severity of client trauma and burnout in staff (Hardiman & Simmonds 2013).

There was no significant relationship found between the frequency of indirect trauma exposure and burnout in four of the eight studies which assessed this (Adams et al., 2006, Devilly et al., 2009; Schauben & Frazier, 1995; Sodeke-Gregson et al., 2013). Two studies found a significant positive relationship between frequency of trauma exposure and burnout as measured by percentage of clients with a diagnosis of Post Traumatic Stress Disorder (PTSD; Craig & Sprang, 2010) and number of clients with a history of trauma (Arvay & Uhlmann, 1996). A further study found a significant positive relationship between the number of hours per week spent working with clients with a trauma history (Robinson et al., 2003) and one study found a significant negative correlation between exposure and both emotional exhaustion and depersonalisation (Shoji et al., 2015). Emotional exhaustion was also found to be significantly negatively correlated with the severity of clients' trauma, as measured on a nine point Likert scale (1 low to 9 high; Hardiman & Simmonds 2013).

Study quality

The quality rating of the studies is outlined in full in Appendix B. Studies generally tended to be of medium quality, with low response rates and self selected samples. Inclusion and exclusion criteria for studies frequently did not report the type or degree of trauma work in detail in the trauma specific studies. In addition, few studies reported a power analysis to determine an appropriate sample size to detect significant effects.

Discussion

The current review aimed to explore levels of burnout in staff working with trauma and to investigate if there is a link between the level of secondary exposure to trauma and burnout. The findings of the review demonstrate mixed findings with levels of burnout varying between studies. When compared to normative levels of burnout in mental health staff, burnout in clinicians working specifically with trauma appears to be higher. This indicates that there may be something specific to working with trauma that results in higher levels of burnout, particularly exhaustion. Given previous findings that working specifically with trauma may be an especially emotionally demanding element of working in mental health services (Iliffe & Steed, 2000), this may account for the higher levels found than in generic mental health services.

Studies that investigated the relationship between levels of secondary exposure and burnout were reported separately in the current study in an attempt to explore this relationship in more detail. These demonstrated that there was no clear relationship between the level of trauma exposure and burnout in clinicians in generic mental health services. Although three studies indicated positive relationships between trauma exposure and burnout, and only one study indicated a negative relationship, these results need to be interpreted cautiously given that three of these studies used measures of trauma exposure that were not independent of their overall workload. Therefore, the number of hours worked with trauma per week as a measure of exposure would likely be related to the overall workload of a clinician, which is known to correlate with burnout (Lasalvia et al., 2009). As such, it is not possible to disentangle the effects of workload and trauma work within studies that used this measurement of indirect exposure.

Limitations

The studies in the review suffer from a number of methodological shortcomings that should be taken into account when considering the findings of this review. The majority of studies were exploratory in nature and due to low response rates it is not clear if the study samples were representative of the population. In particular this may be a concern in research into burnout, as it is possible that clinicians who are burntout are less likely to engage in additional activities such as participation in research, meaning that included samples may be more likely to represent those staff who have lower levels of burnout. Previous research has indicated that one of the main reasons for non responses is due to busy work demands (Johnson & Hunter 1997; Prosser et al., 1997).

There are a number of confounding factors that are likely to have impacted on the findings. Organisational environment and demands are known to be significant predictors of burnout in staff (Lasalvia et al., 2009). The studies in the current review varied in their aims and hence in the measurement of these confounding factors. As such, factors such as the overall workload of clinicians, levels of support within the organisation, staff gender and professional role have not been accounted for in the current review. However, it is likely that these factors will have had an impact on burnout in the clinicians in the included studies.

There are likely to be individual differences in the approaches which clinicians take to working with trauma. Trauma is known to be linked to a wide range of mental health difficulties (Turner & Lloyd, 1995), and a history of trauma does not necessarily indicate that staff are working directly with traumatic memories. Therefore, the therapeutic approach of staff and the presenting difficulties of clients may impact on the levels of clinicians' exposure to trauma, and hence the emotional demands placed on clinicians due to the client's trauma. Nevertheless, the comparisons between staff engaged in trauma specific work and staff in general mental health services gives an indication that there is something specific to working with trauma which places staff at higher risk of burnout. In addition, there appear to be higher levels of personal accomplishment in staff working specially with trauma. Given that this is one aspect of burnout, it may be somewhat protective in mediating the impact of emotionally taxing therapeutic work with these clients.

A number of studies were unclear in their definition of what constitutes a trauma therapist. Inclusion criteria were more stringent in the current review than in previous reviews which have explored burnout in trauma therapists (e.g. Ceislak et al., 2014), by excluding studies which did not explicitly state clinicians worked in a trauma specific service or worked primarily with trauma. Whilst this is a strength of the current study, it means that a number of studies were excluded where the trauma population was not described in sufficient detail to warrant inclusion in the current study.

The range of measures and differences in the theoretical constructs of burnout also add to the limitations of the current review. Differences in measures, and the possibility that they are measuring different constructs may confuse the findings somewhat. This may be especially the case, given that CF conceptualisation of burnout has been suggested to link more closely with levels of depersonalisation rather than exhaustion. Given that measures of depersonalisation within studies resulted in varied findings, this may account for some of the differences between the lower levels of burnout when measured by the CFST than when measured by the MBI.

Implications

Services that provide care for traumatised populations should be aware of the increased risk of burnout in their staff. There are a number of organisational factors that are known to reduce the risk of burnout such as participation in training, supervision, an appropriate workload and a supportive work environment. These factors need to be explored in relation to trauma specific work to protect the workforce and contribute to clinically effective and safe working in mental health services. It is of particular importance that these factors are given consideration to provide staff with the necessary support to work with these clients given the significant emotional demands integral to trauma specific work.

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Table 1

Summary of Studies Examining Burnout in Staff Working with Trauma

Study (first author, year)	**Sample**	**Response rate**	**Trauma setting**	**Burnout measure**	**Quality rating (%)**	**Levels of burnout based on mean scores[1]**
Baird (2003)	101 paid and volunteer counsellors 96% female	Not reported	Sexual assault and domestic violence centres USA	MBI HSS	56	Paid staff subsample (n=63) EE - average DP - low PA - low
Ben-Porat (2011)	143 social workers 84.6% female	70%	Working with victims of domestic violence Israel	Pines burnout scale	67	No cut off reported.
Birck (2001)	25 staff (14 therapists) 60% female	Not reported	Treatment centre for torture victims Germany	CSF Burnout Subscale	56	Therapist subsample (n=14) Low risk
Buchanan (2006)	280 mental health professionals. 83% Female	34%	Identified as trauma therapists One third of sample working solely with trauma. Canada	CFST Burnout subscale	56	Low risk
Collins (2003)	13 health care workers in a trauma and recovery team (84.6% working therapeutically with clients) Participant gender not reported	Not reported	Trauma and recovery team Ireland	CSF Burnout subscale	33	Low risk
Deighton (2007)	100 therapists 65% female	55.4%	Treatment centres for torture victims Germany, Austria and Switzerland	MBI –D (HSS version)	56	EE - high DP – high PA – low
Garcia (2015)	137 mental health professionals 67% female	Estimated response rate 20.4%	PTSD clinical team for veterans USA	MBI-GS	67	EX - average CY - high PE - average
Johnson (1997)	41 counsellors 100% female	36.6%	Sexual assault counsellors Australia	MBI HSS	44	EE – high DP – high

						PA – average
Kadambi (2004)	86 mental health professionals 84.3 % female	39.2%	Sexual violence centres Canada	MBI HSS	78	EE – high DP – low PA – low
Kjellenberg (2014)	69 staff (71% therapists) 75% female	Estimated response rate 50%	Trauma treatment centres for war and torture survivors Sweden	ProQOL Swedish Translation	67	High risk
McLean (2003)	116 therapists 73 % female	61%	Therapists identified as working primarily with traumatised clients Australia	MBI -HSS	56	EE - average DP - average PA - high
Smith (2007)	63 mental health professionals (43 therapists, 20 social workers) 60% female	55.4%	Treatment centre for victims of violence, war and persecution Netherlands	MBI NL (HSS version)	44	EE - high DP - average PA - average

Note: MBI subscales are denoted by the following: EE = Emotional exhaustion; DP = depersonalisation; PA = personal accomplishment; EX = exhaustion; CY = cynicism; PE = Personal efficacy.

[1]MBI HSS cut offs (Maslach, Jackson & Leiter,1996): EE High>20, Average 14-20, Low <14; DP High >7, Average 5-7, low <5; PA High<29, Average 28-33, Low>33.
MBI NL cut offs (Shaufeli & Van Dierendonck, 1995): EE High >20, Average 13-20, Low <13; DP High >8, Average 5-8, Low <5; PA High <28, Average 29-32, Low >32
MBI GS cut offs (Maslach, Jackson & Leiter, 1996): EX High >15, Average 11-15, Low <11; CY High >10, Average 6-10, Low <6; PE High <25, Average 24-30, Low >30
CFST and CSF Burnout subscale cut offs (Figley & Stamm, 1996): Extremely high risk >75, High risk 51-75, Moderate risk 37-50, Low risk <37
ProQOLIII (Stamm, 2005): High >22, Moderate 18-22, Low <18

Table 2

Mean Burnout Scores from Included Studies and Comparison Samples

Study	**Sample**	**Measure**	**n**	**Burnout Scores Mean (standard deviation)**		
McLean (2003)	Trauma sample	MBI HSS	116	EE 18.7 (16.5)^{ns}	DP 5.3 (4.9)^{ns}	**PA 10.6 (5.9)*****
Johnson (1997)	Trauma sample	MBI HSS	41	**EE 24 (10.2)*****	DP 5.6 (4.4)^{ns}	PA 32.3 (5.2)^{ns}
Baird (2003)	Trauma sample	MBI HSS	101	EE 16.7 (9.7)^{ns}	**DP 3.7 (4.4)*****	**PA 40.6 (5.9)*****
Kadambi (2004)	Trauma sample	MBI HSS	86	**EE 21.42 (13.61)*****	DP 4.96 (3.88)^{ns}	**40.90 (4.38)*****
Maslach (1996)	*Comparison sample of mental health staff*	*MBI HSS*	*730*	*EE 16.89 (8.9)*	*DP 5.72 (4.62)*	*PA 30.87 (6.37)*
Smith (2007)	Trauma sample	MBI-NL	63	**EE 20.0 (7.7)***	DP 7.2 (4.6)^{ns}	**PA 33.7 (4.4)*****
Schaufeli (1995)	*Comparison sample of human service professionals*	*MBI-NL*	*3892*	*EE 17.86 (8.50)*	*DP 7.55 (4.29)*	*PA 30.95 (5.72)*
Deighton (2007)	Trauma sample	MBI-D	100	**EE 3.42 (0.92)*****	**DP 2.5 (0.76)****	**PA 4.55 (0.43)***
Maslach (1986)	*Comparison sample of human service professionals*	*MBI-HSS*	*1025*	*EE 2.71 (1.30)*	*DP 1.57 (1.17)*	*PA 4.23 (1.04)*
Garcia (2015)	Trauma sample	MBI GS	137	EX 2.98[1]	CY 2.26[1]	PE 4.85[1]
Leiter (1996)	*Comparison sample of mental health staff*	*MBI GS*	*415*	*EX 2.54 (1.53)*	*CY 1.88 (1.44)*	*PE 4.29 (1.01)*
Kjellenberg (2014)	Trauma sample	ProQOL Swedish Version	69	23.51 (4.52)^{ns}		
Stamm (2005)	*Comparison sample of human service professionals*	*ProQOL*	*463*	*22.0 (6.8)*		
Collins (2003)	Trauma therapists	CSF	13	**29.62 (9.32)*****		
Buchanan (2006)	Trauma therapists	CFST	280	**32.9 (9.2)*****		
Birck (2001)	Trauma sample	CSF	14	**35.63 (8.24)*****		
Stamm (1998)	*Comparison sample of mental health staff*	*CSF*	*400*	*23 (6.90)*		
Ben-Porat (2011)	Trauma sample	Pines Burnout Measure	143	2.37 (0.48)		

[1] Mean item scores calculated from mean total subscale scores

* p<0.5

** p<0.01

***p<0.001

ns = not significant

Table 3

Summary of studies reporting relationship between trauma work and burnout

Study (First author and year)	**Sample**	**Setting**	**Exposure to trauma clients**	**Burnout measure**	**Quality rating (%)**	**Relationship between burnout and trauma work**
Adams (2006)	236 social workers 80% female Response rate 46%	Mailing list from social work national organisation. USA	19.1 % participants had traumatised clients making up over 20% of their caseload. 18.2% were considered to have high involvement in counselling victims of the 9/11 attacks.	CFS-R	67	Relationship between job burnout and 9/11 counselling involvement r=0.106 ^{ns} Burnout and percentage of survivors of violence on caseload r =0.034 ^{ns}
Arvay (1996)	161 mental health professional 80% female Response rate 64%	Working in the field of trauma Canada	Mean percentage of clients with trauma = 61%	MBI HSS	67	Relationship between number of trauma cases per week and EE r =0.23 **
Craig (2010)	532 clinical psychologists and clinical social workers 65% female Response rate 27.1%	Recruited from social work register and APA clinicians identified as having expertise in trauma treatment or specialist in trauma treatment USA	98% sample had clients experiencing PTSD on caseload, average 28% caseload PTSD	ProQOL III	78	Significant relationship between percentage of clients with PTSD and burnout. As part of hierarchical regression, accounted for beta 0.15 ***
Devilly (2009)	152 mental health professionals 71% female Estimated response rate 32%	Specific work setting varied and details not reported. Australia	Average trauma patient caseload 37.54 (32.31) Hours per week trauma patients 5.59 (6.05)	CBI	78	Trauma patient caseload was not significantly related to burnout when controlling for work stress, hours worked and history of personal trauma.
Hardiman (2013)	89 counsellors and psychotherapists 79.8% female Response rate 32%	Recruited from general database Australia	91% report working with severely traumatised clients Hours per week with trauma clients 5.97 (5.74)	MBI HSS	44	Relationship between EE and severity of clients trauma r =-0.22*
Robinson (2003)	295 psychiatric nurses 79% female Response rate 29%	Working within specified region in USA.	44% sample reported working with trauma Mean hours per week working with trauma = 10.	MBI HSS	56	Based on sample currently involved in trauma work: n=91. There was a significant relationship between hours of trauma work and EE. Details not reported.

Schauben (1995)	148 psychologists and counsellors 100% female Response rate 42%	Female psychologists and sexual violence counsellors USA	Percentage of clients with a history of sexual violence Psychologists mean = 44.53 (28.57) Violence counsellors mean = 93.76 (10.90)	MBI HSS	67	No significant relationship between percentage of survivors on caseload and burnout $r=0.05^{ns}$
Shoji (2015)	294 behavioural healthcare providers 66.3% female Response rate 45.9%	Working with military personnel USA	All clinicians indirectly exposed to trauma through clients Mean frequency of exposure 6.16 (1.12) based on a likert scale (1 never, 7 everyday).	OLBI	67	Trauma frequency and Emotional exhaustion $r=-0.19$ * Trauma frequency and Depersonalisation $r=-0.31$***
Sodeke-Gregson (2013)	253 therapists 79.9% female Response rate not reported	Working in mental health services UK	All engaged in trauma work	ProQOL v5 burnout subscale	67	Number of trauma focused clients on caseload not significantly related burnout $r=-0.027^{ns}$

** $p<0.5$*
*** $p<0.01$*
****$p<0.001$*
ns = not significant

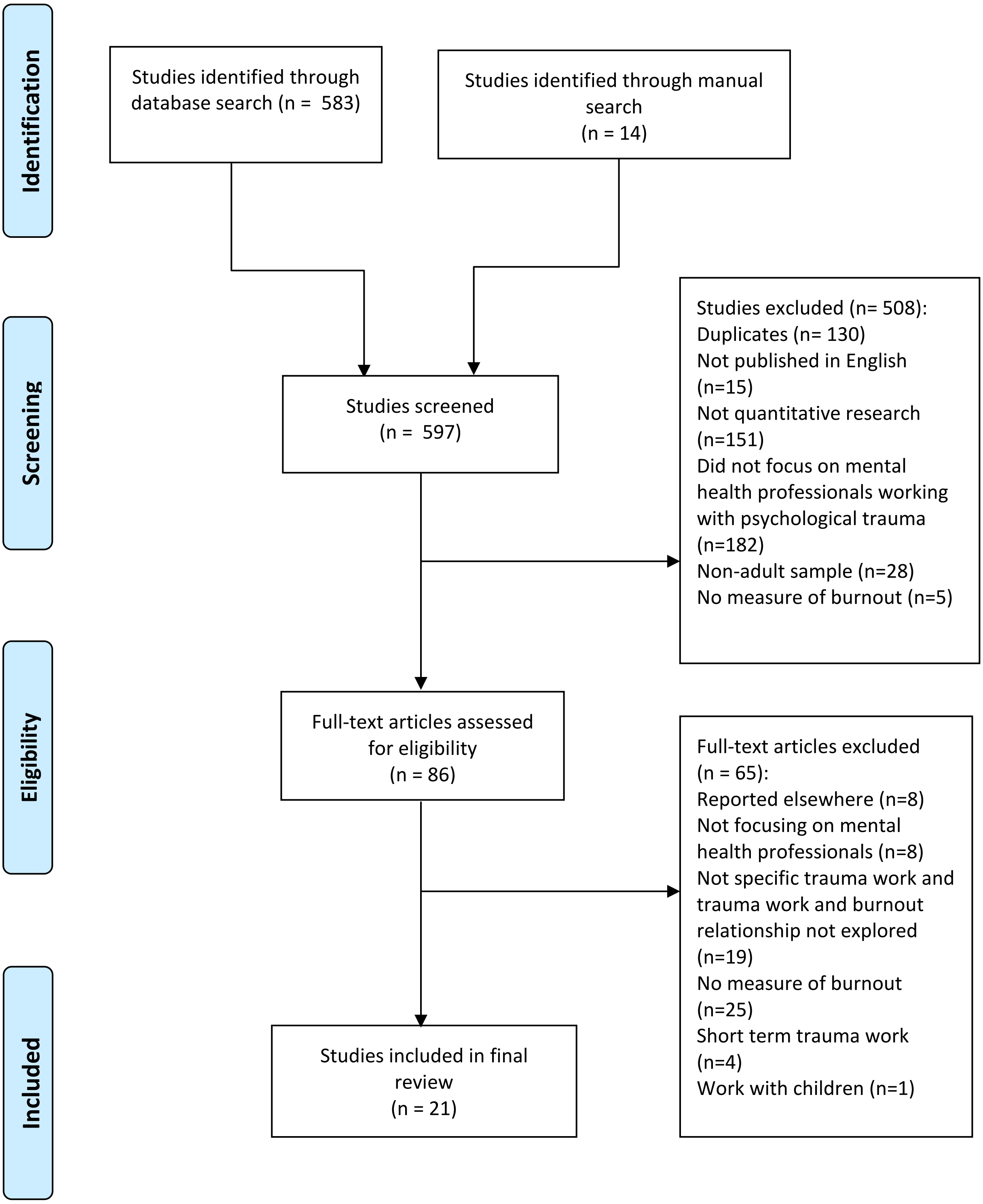

Figure 1. PRISMA flow diagram of included studies

Appendix A

Quality Rating Scale

Criteria	Yes	No	CD / NA[1]
1. Was the research question, aims, or objectives clearly described?			
2. Were the characteristics of the study population clearly specified and defined? Were inclusion and exclusion criteria explicitly stated?			
3. Were participants representative of the population from which they were recruited? Response and attrition rates should be reported.			
4. Was a sample size justification for adequate power provided?			
5. Was there a sufficient time period to reasonably expect an association between the independent variable(s) and dependent variables(s) if it existed?			
6. Were the outcome measures clearly defined, valid and reliable?			
7. Are the main findings of the study clearly reported, including reporting of *p* vales, confidence intervals and effect sizes where appropriate?			
8. Were important confounding variables measured and controlled for?			
9. Were the statistical analyses used to assess the main outcomes appropriate?			

[1] CD = cannot determine; NA = not applicable

Appendix B

Quality Rating of Studies

	Quality assessment questions									
Study (First author and year)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Total (%)
Adams (2006)	Y	Y	CD	N	Y	Y	Y	Y	Y	78
Arvay (1996)	Y	Y	CD	N	CD	Y	Y	Y	Y	67
Baird (2003)	Y	CD	CD	N	Y	Y	N	Y	Y	56
Ben-Porat (2011)	Y	CD	CD	N	Y	Y	Y	Y	Y	67
Birck (2001)	Y	CD	CD	N	Y	Y	Y	N	Y	56
Buchanan (2006)	Y	N	CD	N	Y	Y	Y	N	Y	56
Collins (2003)	N	N	CD	N	Y	Y	N	N	N	22
Craig (2010)	Y	N	CD	Y	Y	Y	Y	Y	Y	78
Deighton (2007)	Y	CD	CD	N	Y	Y	Y	N	Y	56
Devilly (2009)	Y	CD	N	Y	Y	Y	Y	Y	Y	78
Garcia (2015)	N	Y	CD	N	Y	Y	Y	Y	Y	67
Hardiman (2013)	Y	CD	CD	N	Y	N	Y	N	Y	44
Johnson (1997)	Y	CD	CD	N	Y	N	Y	N	Y	44
Kadambi (2004)	Y	Y	CD	N	Y	Y	Y	Y	Y	78
Kjellenberg (2014)	Y	N	CD	N	Y	Y	Y	Y	Y	67
McLean (2003)	Y	N	CD	N	Y	Y	Y	N	Y	56
Robinson (2003)	N	Y	Y	N	Y	Y	N	Y	CD	56
Shoji (2015)	Y	Y	CD	N	Y	Y	Y	N	Y	67
Schauben (1995)	Y	N	CD	N	Y	Y	Y	Y	Y	67
Sodeke-Gregson (2013)	Y	Y	CD	Y	CD	Y	N	Y	Y	67
Smith (2007)	Y	CD	CD	N	Y	CD	Y	N	Y	44

Section Three: Empirical Study

Journal Submission Guidelines

Journal of Traumatic Stress

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6. Format the reference list using APA style: (a) begin on a new page following the text, (b) double-space, (c) use hanging indent format, (d) italicize the journal name or book title, and (e) list alphabetically by last name of first author. If a reference has a Digital Object Identifier (DOI), it must be included as the last element of the reference.

Journal Article

Kraemer, H.C. (2009). Events per person-time (incidence rate): A misleading statistic? *Statistics in Medicine, 28,* 1028–1039. doi: 10.1002/sim.3525

Book

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Book Chapter

Meehl, P. E. (2006). The power of quantitative thinking. In N.G. Waller, L.J. Yonce, W.M. Grove, D. Faust, & M.F. Lenzenweger (Eds.), *A Paul Meehl reader: Essays on the practice of scientific psychology* (pp. 433–444). Mahwah, NJ: Erlbaum.

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Working with Complex Trauma: Knowledge and Perceived Competence of Mental Health Staff

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Abstract

Experiences of complex trauma are common in clients accessing mental health services, and may result in more severe and complex mental health difficulties. There have been recommendations that services and staff are knowledgeable about trauma to work effectively with these clients. The current study therefore aimed to explore the perceived competence of clinicians working with complex trauma, using a mediation model to explore the relationships between training, supervision, knowledge and perceived competence. 146 mental health professionals from two UK health boards participated in the study. Results indicated that training and supervision quality were related to higher perceived competence. These relationships were fully mediated by perceived knowledge but not assessed knowledge. Additionally, specific training variables were found to predict the levels of assessed knowledge of clinicians. In conclusion, staff appear to perceive themselves as more competent as a result of higher levels of perceived knowledge rather than assessed knowledge, however services can improve clinicians' objective knowledge by providing training which is interactive and focuses on treatment interventions. Further research is needed into the predictors of assessed competence in clinicians working with trauma.

Keywords: trauma, staff, perceived competence, training, knowledge

Introduction

Prevalence and Consequences of Trauma

Many clients accessing mental health services will have experienced traumatic events with research suggesting that over 90% have a history of trauma (Cusack, Frueh & Brady 2004). Trauma is known to adversely effect mental health (Solomon & Davidson, 1997) and the number of traumatic events is positively correlated with the severity and complexity of difficulties (Briere, Kaltman & Green, 2008). Repeated interpersonal traumatic stressors, particularly repeated and chronic trauma in early years has been referred to as "complex trauma" (Herman, 1992). This can lead to difficulties with emotion regulation, alterations in self perception, somatic symptoms and difficulty with interpersonal relationships (Courtois, 2004).

Trauma Informed Services

There are recommendations for services to become more trauma informed and for staff to be better equipped to work with this client group, particularly given the complex mental health needs they may experience (Courtois & Gold 2009). Research with survivors of childhood sexual abuse has highlighted the need for clinicians to be knowledgeable about trauma to work effectively with these clients (Harper, Stalker, Palmer & Gadbois, 2008). The quality of care provided by clinicians may be limited by the skills and knowledge of staff (Frenken & Van Stolk, 1990) and working with survivors of trauma without adequate knowledge and skills has been linked to poorer outcomes. This includes longer inpatient stays when there is a failure to recognise trauma in the aetiology of mental health difficulties (Tucker, 2002) and working without sufficient training and skills may lead to an exacerbation of client difficulties (Gold, 2008).

Gold and Faust (2002) proposed that clinicians should receive training in working with trauma as a means to address the need for trauma-informed services. It has been suggested that for services to be considered trauma-informed, staff need to have a good understanding of trauma and its impact (Jennings, 2004), and that training is an essential part of achieving this (Berger & Quiros, 2014).

Evidence based practice

Whilst training is repeatedly cited as necessary and beneficial for clinicians, it is important to consider why and how this may benefit clinicians. This is of relevance in services with limited resources to ensure that training is implemented in such a way as to be both efficient and effective, and to ultimately lead to clinicians changing their practice to reflect the evidence base.

There has been interest in the factors influencing clinician behaviour change in relation to the implementation and dissemination of evidence based practices. Clinician skills and knowledge have repeatedly been found to be necessary for effective behaviour change and increasing knowledge in staff are among the primary aims of staff training (Beidas & Kendall, 2010; Michie et al., 2005). However, a supportive organizational context and clinicians' beliefs about their self-efficacy and competence are also proposed to impact on their use of evidence-based practice (Couineau & Forbes, 2011; Michie et al., 2005).

Supervision

Supervision is one means by which clinicians can be supported to develop their skills (Brunero & Stein-Parbury, 2008), with a higher quality of supervision linked to improved standards of care (Hyrkas, Appleqvist-Schmidlechner & Haataja, 2006). Supervision is also important in supporting staff to implement new knowledge and encouraging changes in staff practices following participation in training (Godley, Garner, Smith, Meyers & Godley, 2011).

Mental health staff report that supervision contributes to their training and development (Reid et al., 1999) and participation in supervision is related to higher levels of perceived competence, both in social workers (Cohen & Laufer, 1999) and domestic violence therapists (Ben-Porat & Itzhaky, 2015). Supervision quality impacts on clinicians' self-efficacy, with significant differences found for high quality supervision compared with low quality supervision. In contrast, clinicians' perceived self-efficacy was similar for those receiving low quality supervision and no supervision (Koivu, Saarinen & Hyrkas, 2012).

Training

Participation in training is linked to beneficial outcomes for staff working with complex trauma, particularly with survivors of childhood sexual abuse. For example, training aimed at increasing clinicians' understanding of the impact of trauma and integrating this into formulations is related to increased empathy when facing challenging behaviours (Greenwald et al., 2008). Attitudes towards clients with Borderline Personality Disorder also improve after participation in training (Krawitz, 2004). Furthermore, training has been linked to beneficial changes in staff practices, such as increases in the frequency of staff asking about trauma, specifically childhood sexual abuse (Read, McGregor, Coggan & Thomas, 2006).

Knowledge and competence

Given that changes in knowledge and competence are a primary aim of training, researchers have investigated this in relation to work with adult survivors of childhood sexual abuse. Campbell & Carlson (1995) conducted a survey of 427 clinicians and found that training was linked to an increase in self-reported knowledge. A further study found that training and supervision significantly impacted on clinicians' perceived confidence and competence working with this client group (Day, Thurlow & Woolliscroft, 2003). Perceived competence is linked to clinicians’ practices and staff who perceive themselves as less competent are less likely to discuss, document and work with complex trauma (Salyers, Evans, Bond & Meyer, 2004).

Accurate measurement of clinicians’ knowledge and competence is difficult, and self-report measures of perceived competence have not been found to correlate with assessed competence in therapists (Mathieson, Barnfield & Beaumont, 2008). Similar results have been found for perceived and assessed knowledge with low to moderate correlations between the two (Khan, Awonuga, Dwarakanath & Taylor, 2001). There have also been studies indicating that as clinicians become more experienced, they may in fact perceive themselves as being more competent whilst having lower levels of assessed competence (Choudhry, Fletcher & Soumerai, 2005). Given this, there is a need to distinguish between perceived and actual knowledge in staff, and to take into account clinician factors which influence knowledge, such as experience and level of education (Salyers et al., 2004).

Although increases in perceived competence are important following training for staff to have the confidence to change their practices, it is also essential that clinicians effectively acquire new knowledge. Whilst training is linked with higher levels of knowledge, which forms of training are most effective in improving clinicians’ knowledge within the context of trauma work has not been investigated. Research indicates that some forms of training may be more effective than others, such as interactive teaching (Beidas & Kendall, 2010), and this was explored further in the current study.

As training and supervision quality have been found to link with perceived competence, it is worth considering the pathways by which perceived competence increases. Whilst supervision and training aim to increase clinicians’ skills and knowledge, therefore leading to an increase in perceived competence, it is possible that clinicians’ perceived knowledge as well as their actual knowledge may mediate this relationship. To date, no studies have explored the pathways by which supervision and training impact on clinicians' perceptions of their competence. The present study aims to rectify this gap in the literature.

Aims

Given the complexities that individuals who have experienced complex trauma may present with, and the repeated calls for further staff training, the current study aimed to explore the mechanisms by which supervision and training may influence clinicians’ perceived competence in adult mental health clinicians working with complex trauma. In addition, different experiences of training may impact on its effectiveness in increasing clinicians’ knowledge and hence the impact of training specific variables on directly assessed knowledge will be explored.

As such, the research aims to test the following hypotheses:

- Clinicians’ perceived and assessed knowledge will mediate the relationship between participation in training and perceived competence (Figure 1).

< Insert Figure 1 >

- Clinicians’ perceived and assessed knowledge will mediate the relationship between supervision quality and perceived competence (Figure 2).

< Insert Figure 2 >

- Training specific variables, such as the type of training, amount of training and format of training, will be related to assessed knowledge.

Method

Participants

Participants were 146 staff working in primary and secondary mental health services in a health board in Scotland and a health board in Wales. 47.9% were recruited from the Scottish health board and 51.4% were recruited from the Welsh health board. A total of 421 staff were invited to participate in the study by letter, with a response rate of 35% This response rate is comparable to other survey studies, such as the 32% response rate of Edwards et al. (2005) in their survey of burnout in Welsh mental health services.

Measures

Demographic information

Information including age, gender, education, and length of time working in mental health services was collected using a questionnaire designed for the current research.

Information was collected on staff's participation in post qualification training in complex trauma. This included information relating to the amount of training they had received (in days), whether the training was didactic or interactive, and the type of training. Data on the type of training was collected through the use of open ended questions and classified as trauma awareness (Awareness), skills working with trauma (Skills), or training in a specific trauma intervention (Intervention). These classifications were ranked according to their relevance and specificity to the treatment of difficulties associated with complex trauma. This was rated by two of the study authors (*HW* and *NH*). Disagreements in classification were resolved by discussion, with eight responses considered to be unclassifiable due to insufficient detail.

Supervision

Participation in supervision was measured using a single item question (yes/no). Supervision Quality was measured using the MCSS-26 (Winstanley & White, 2013) which is a 26 item scale measuring the quality of clinical supervision. This has been found to be have good internal consistency and test retest reliability (Winstanley & White 2013). In the current study, the scale demonstrated good internal consistency with a Cronbach's alpha value of 0.71.

Outcome variables

Perceived Competence

Staff's Perceived Competence working with clients who had experienced complex trauma was measured using an adapted version of the competence scale devised by Salyers et al. (2004; Appendix C). This is an eight item scale which requires participants to respond to a number of statements on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). In the current study, Cronbach's alpha indicated good internal consistency with a value of 0.85.

Knowledge

Assessed Knowledge was measured using a series of true and false questions and multiple choice questions around complex trauma, its consequences and the treatment of Complex Post Traumatic Stress Disorder (CPTSD). These were drawn from the literature on complex trauma, including guidelines on the treatment of CPTSD (Cloitre et al., 2012). Correct items were scored as 1 and incorrect responses or responses of "don't know" were scored as 0. The total score was the sum of correct answers. A 23 item scale was initially piloted with 14 trainee clinical psychologists, following which four items were deleted due to a lack of variance in responses. The resulting 19 item scale was disseminated to participants in the current study. The final scale included in the analysis was a 15 item scale due to a further four items being discarded due to a lack of variance. Split half reliability of the scale was conducted using

Spearman-Brown reliability analysis ($r_{SB} = 0.78$). The Assessed Knowledge Scale used in final analysis is detailed in Appendix D.

Perceived Knowledge was measured on a single item Likert scale from 1 (not at all knowledgeable) to 5 (extremely knowledgeable).

Procedure

Ethical approval was granted by the ethics committee of Bangor University and from the research and development committees of both health boards. Approval was sought from the Directors of Mental Health in both health boards and from relevant managers. Staff were approached at team meetings and by post to explain the research and invite them to participate. One email reminder was sent. Informed consent was assumed by return of the questionnaires and this was made clear to participants in the information regarding the study. Data was collected over a five month period. 149 questionnaires were returned. Three of these were returned blank, two due to staff not currently working within the service, and one as it was not translated into Welsh.

Analysis

Data were analysed using SPSS version 22 and the PROCESS version 2.15 macro for mediation analysis (Hayes & Preacher, 2014). A bias corrected bootstrapping approach was used based on 5000 bootstrap samples to correct for non normally distributed data (Fritz & MacKinnon, 2007). To determine a mediation effect, the predictor, mediator and outcomes variables must be significantly correlated (Baron & Kenny 1986) and this was explored using bivariate correlations. A further assumption of mediation analyses is that the outcome variable (Perceived Competence) must be significantly correlated with the mediator variables when the independent variable is controlled for. This is tested for within the mediation model. For the indirect effect to be significant, the bootstrap bias corrected 95% confidence intervals (BCCI) should not include zero (Hayes & Preacher 2014).

An adequate sample size to detect a small to medium effect was based on a bootstrapping approach for the mediation analysis as suggested by Fritz & MacKinnon (2007). This indicated a sample size of 148 participants would be required for adequate power (0.8) to detect an effect.

To explore the relative contribution of training variables to Assessed Knowledge, a multiple regression analysis was carried out. Again, this was based on a bias corrected bootstrap sample of 5000 to account for skewed data.

Results

Descriptives

Demographics of the sample are reported in Table 1. The proportion of female respondents (66.4%) and professional groups was considered to be representative of the total sample across the two recruitment sites. This was calculated from teams within the two health boards where this information was available. The percentage of females in these teams was 74.3% and the percentage of different professional roles were: nursing 43%; psychology/psychological therapy 22.4%; medicine 10%; allied health professionals 6%, and social work 17%.

< Insert Table 1>

Staff had worked for an average of 10.87 (SD 8.29) years in mental health services, ranging from 6 months to 39 years. Staff rated the importance of asking about trauma and the frequency with which they asked highly, with 87% of staff reporting that they usually or always asked clients about a history of trauma, and 90% of staff reported that they believe it is very or extremely important to ask clients about a history of trauma. 99% of staff reported working with clients with a history of trauma and 96% reported working with clients with a history of complex trauma. The mean percentage and standard deviation of clients with a history of trauma and complex trauma on a clinician's caseload was 55% and 32% respectively, as estimated by clinicians. This ranged from 0% to 100% indicating considerable variation in clinicians' estimations of the prevalence of trauma in their clients' histories.

Chi-square and *t*-test analyses found no significant differences between recruitment sites for age, gender, or experience. There was a significant difference between recruitment sites in participation in training ($\chi^2(1)=7.10$, $p<0.01$), with clinicians in the Scottish health board more likely to have participated in training. Perceived Knowledge was significantly higher in the Scottish health board compared with the Welsh health board (Scotland M=3.04, SD=0.82; Wales M=2.71, SD=0.87; $t(141)=-2.33$ $p<0.05$) and Assessed Knowledge was significantly higher in the Scottish health board (Scotland M=8.24, SD=3.05; Wales M=6.51, SD=2.43, $t(128)=-3.68$, $p<0.001$). There were no significant differences in Quality of Supervision or Perceived Competence between recruitment sites.

Quality of supervision was generally high with a mean score of 81.25 (SD=15.84). Winstanley and White (2013) suggest that supervision is considered to be efficacious for scores over 73, demonstrating that the current sample had good quality supervision. Participation in supervision did not have a significant effect on any of the outcome variables of Perceived Knowledge, Assessed Knowledge or Perceived Competence.

Outcome variables

The mean score for staff Perceived Competence was 29.21 (SD=5.16). The maximum possible score was 40 and participant scores ranged from 15 to 40, with two participants obtaining the maximum score of 40. Perceived Knowledge scores had a maximum value of 5, with a mean of 2.86 (SD=0.87) and a range of 1 to 5. The mean Assessed Knowledge score was 7.32 (SD=2.87) ranging from 2 to 14 with a maximum possible score of 14, with staff on average answering half of the questions correctly.

Mediation analyses

To test the hypotheses that the relationships between Participation in Training and Supervision Quality with Perceived Competence are mediated by changes in Perceived and Assessed Knowledge, two separate multiple mediation analyses were run.

Bivariate correlations using Spearman’s Rho were initially carried out to assess for significant relationships between these variables. Given that Perceived Competence and Assessed Knowledge may increase as a result of both experience and level of education (Salyers et al., 2004), these variables were included in the correlation analyses to account for potential confounding effects. These are presented in Table 2.

< Insert Table 2 >

There were significant correlations between all variables, with the exception of experience, which is consistent with findings of previous research (Day et al., 2003; Salyers et al., 2004). Given the significant relationships of experience and education with Perceived Competence, these were entered as covariates in the analyses. There were no concerns around multicollinearity as the Variation Inflation Factors were well within conservative accepted parameters of <5 for all correlations reported (Menard, 1995).

The mediation analysis for the effect of training on Perceived Competence indicated that after controlling for education and experience, Perceived Knowledge significantly mediated the relationship between Training and Perceived Competence ($\beta = 3.15$, 95% BCCIs = 2.06, 4.49). Assessed Knowledge did not meet the assumptions necessary for a mediation analysis due to the lack of a significant relationship between Assessed Knowledge and Perceived Competence when controlling for Training. The final mediation model is outlined in Figure 3. This accounted for 66% of the variance in Perceived Competence ($F(5,132)=52.12$, $p<0.001$).

< Insert Figure 3 >

For the effect of Supervision Quality on Perceived Competence, the mediation analysis indicated that after controlling for education and experience, Assessed Knowledge was not significantly related to either Supervision Quality or Perceived Competence and thus was not included in further analysis. The final model is outlined in Figure 4. Supervision Quality and Perceived Competence was fully mediated by changes in Perceived Knowledge ($\beta=0.05$, 95% BCCIs = 0.01, 0.10*)*. This suggests that the beneficial effect of supervision on clinicians' perceptions of their own competence occurs as a result of clinicians believing themselves to be more knowledgeable. This final model accounted for 28% of the variance in Perceived Competence ($F(3,102) =13.05$, $p<0.001$).

< Insert Figure 4 >

Knowledge and training

The relationship between Participation in Training and Assessed Knowledge was explored to investigate which variables relating to training predict Assessed Knowledge.

Within the subsample of staff who had undertaken further training (n=66), multiple regression analysis indicated that Length of Training (days), Type of Training (Awareness=1, Skills=2, Intervention=3) and Format of Training (Didactic=0, Interactive=1) together were significant predictors of Assessed Knowledge ($F(3,63) = 12.88$, $p < 0.001$, $R^2 = 0.38$; Table 3). The Type of Training and Format of Training were both significant independent predictors of Assessed Knowledge. Clinicians who participated in training with higher levels of specificity to working with complex trauma, and when the training included interactive teaching, were likely to have higher levels of Assessed Knowledge in working with complex trauma.

< Insert Table 3 >

Discussion

The current study aimed to explore the pathways by which training and supervision relate to perceived competence in adult mental health clinicians working with clients who have experienced complex trauma. The study confirmed the previous findings that participation in training and quality of supervision is related to higher levels of clinicians' assessed and perceived knowledge, and perceived competence (Ben-Porat & Izthaky, 2015; Salyers et al., 2004).

Perceived Competence and Assessed Knowledge

The impact of clinicians' knowledge was explored to determine whether higher levels of perceived competence occur due to clinicians being more knowledgeable, or whether it was clinicians' perceptions of their knowledge that influenced this relationship. The findings indicated that the beneficial effects of training and supervision on perceived competence were fully mediated by clinicians' perceived knowledge but not assessed knowledge, indicating that both training and higher quality of supervision predict perceived competence as a result of staff perceiving themselves to be more knowledgeable and not necessarily how knowledgeable they are.

Interestingly, the relationship between assessed knowledge and perceived competence was not significant when the effects of training and supervision were accounted for. Therefore it may be that assessed knowledge and perceived competence are not directly linked, rather they may both be a consequence of higher quality supervision and participation in training.

It is notable that clinicians’ perceptions of both their knowledge and competence were strongly correlated and these may be related to a broader construct of individual differences in confidence. The higher levels of perceived knowledge and competence related to training and supervision may reflect a supportive element of supervision and training which builds clinicians confidence, however, this does not necessarily link to an accurate subjective assessment of their abilities. Therefore it is possible that clinicians’ confidence may be misplaced, particularly given the lack of an independent relationship between perceived competence and assessed knowledge.

This may be of concern in services as clinicians’ perception of their abilities to work with clients is not reflective of their knowledge when assessed. However, the current study did not assess competence directly and hence there is no means of confirming the accuracy of clinicians self report of their competence. It is also significant that competence does not only consist of knowledge, but also having the relevant skills and abilities to apply this knowledge (Axley, 2008). Further research would benefit from directly assessing clinicians’ actual competency working with this client group.

Nevertheless, perceived competence is in itself an important outcome, as clinicians are less likely to engage in new and evidenced based practices if they lack the confidence to do so

(Grol & Wensing, 2004). In addition, they are less likely to discuss or work with clients' trauma histories (Salyers et al., 2004). The results indicate that staff are confident in their current practice in treating these clients, even if they are less knowledgeable. Given that perceptions of competence are related to negative staff outcomes, such as burnout (Acker & Lawrence, 2009) this is likely to be protective for staff wellbeing.

Training

A secondary aim of the study was to explore whether certain forms of training were more effective than others in improving clinicians' knowledge. Almost 40 % of the variance in clinicians' assessed knowledge was predicted by the type and format of the training they receive. This is highly relevant to organisations providing services to trauma survivors as it gives an indication of what training is likely to be effective in improving the knowledge of clinicians. Amount of training was surprisingly not an independent predictor of assessed knowledge, indicating that receiving more training is not necessarily more effective in increasing knowledge. Rather it is the way training is delivered (i.e. interactively) and the focus of the training that is significant in determining if the training is to effectively lead to improvements in clinicians' knowledge. This is consistent with previous literature indicating that interactive training is more likely to be effective than didactic training (Beidas & Kendall, 2010).

Although there is strong evidence that training is beneficial for staff, less than half of staff completing survey had undertaken further training in this area. However, this did not reflect a lack of interest of staff. The high percentage of staff interested in further training (89%) suggests that staff are keen to attend training, but organisational factors have prevented this, such as a lack of available funding or time to engage in further training. This also suggests that the vast majority of staff do not feel that the current training they have in trauma is sufficient. Given the high percentage of clients likely to have experienced trauma in mental health services (Cusack et al., 2004), this is relevant for services to better understand the needs of their workforce, and gives a possible indication of how effectively the needs of clients are being met.

Limitations

Methodological limitations of the study should also be considered. Assessed knowledge was measured using a scale developed specifically for the study. Although a pilot was carried out and internal consistency was assessed, the predictive validity and test retest reliability of the scale has not been established. In addition, the knowledge questions were drawn from background research around complex trauma as there are currently no specific British guidelines for the treatment of CPTSD. The assessment of knowledge did not take into account the professional group of the participants, and it is recognised that different professionals are likely to require different types of knowledge to work with complex trauma.

A further limitation of the research is the potentially nested data sample, with significant differences in training and knowledge between the recruitment sites. Although this added to the variance in the data and prevented potential floor effects, particularly for the training variables, it is possible that this difference reflected wider differences in the population groups that were not accounted for in the current study. However, when the correlations between the independent, mediation and predictor variables were explored using Fisher's z statistic, none of these correlations varied significantly between recruitment sites, suggesting that it was appropriate to combine them into one sample.

The research was a cross sectional survey and it is assumed that higher levels of knowledge and perceived competence occur as a result of receiving training or higher quality supervision. However, it is possible that clinicians with a particular interest in trauma may be more knowledgeable and more likely to pursue training. Assessing changes in knowledge pre and post training would explore this more thoroughly, although previous research supports the finding that knowledge and competence improve as a result of training (Walters, Matson, Baer & Ziedonis, 2005). The sample may also have been biased as result of low response rates and it is unclear if the respondents were representative in terms of their knowledge and competence. Staff may have been less likely to respond if they lacked confidence in their abilities and knowledge, or the converse may be true, where staff who feel this is a particular concern may be more likely to respond.

Conclusions

Training and supervision have beneficial consequences for staff and contribute to a workforce who are not only more knowledgeable about working with clients with complex trauma, but who also perceive themselves to be more competent. Improvements in perceived competence appear to occur as a result of staff's perceptions of their knowledge and hence should be interpreted cautiously as they may not reflect changes in their actual levels of knowledge. Services can improve the knowledge base of their workforce through training that is interactive and focuses on skills and specific interventions for working with complex trauma. As well as providing important insights for services around the needs of their staff working with this complex client group, the current research also highlights the lack of research and need for further exploration of the factors which influence the actual competencies of staff.

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Table 1

Demographic Information of Study Participants

Sample characteristics	n	%
Age		
21-30	7	4.7
31-40	45	30.8
41-50	54	37
51-60	38	26
61-70	1	0.7
Gender		
Female	97	66.4
Male	45	30.8
Professional Group		
Nursing	55	37.7
Psychology	47	32.2
Medicine	16	11
Allied Health Professionals	13	8.9
Social Work	14	9.6
Education		
O Level / GCSE	2	1.4
Higher / A Level	2	1.4
HNC / HND	5	3.4
Degree	72	49.3
Higher Degree	64	43.8
Tier		
Primary care	49	33.6
Secondary care	91	62.3
Primary and secondary care	4	2.7
Location		
Wales	74	50.7
Scotland	70	47.9
Complex trauma training		
Yes	62	42.5
No	82	56.2
Interested in further training		
Yes	128	87.7
No	5	3.4
Unsure	7	4.8
Receiving supervision		
Yes	117	80.1
No	29	19.9

Note: Percentages may not add up to 100% due to missing data.

Table 2

Bivariate Correlations Between Independent, Mediator and Outcome Variables

	Assessed Knowledge	Perceived Knowledge	Perceived Competence	Supervision Quality	Training	Experience	Education
Assessed Knowledge	-	0.56**	0.53**	0.25*	0.44**	0.03	0.45**
Perceived Knowledge		-	0.80**	0.29*	0.52**	0.17*	0.24**
Perceived Competence			-	0.24*	0.50**	0.18*	0.35*
Supervision Quality				-	0.22*	-0.05	0.24*
Training					-	0.08	0.31**
Experience						-	-0.20*
Education							-

*p<0.05
**p<0.01

Table 3

Regression Model for Training Specific Predictors of Assessed Knowledge

	B	*SE B*	*β*	*t*	*p*
Constant	3.36	0.91		3.71	<0.001
Training type	1.40	0.39	0.38	3.60	0.001
Length of training	0.001	0.002	0.03	0.31	0.77
Training format	2.52	0.73	0.36	3.44	0.001

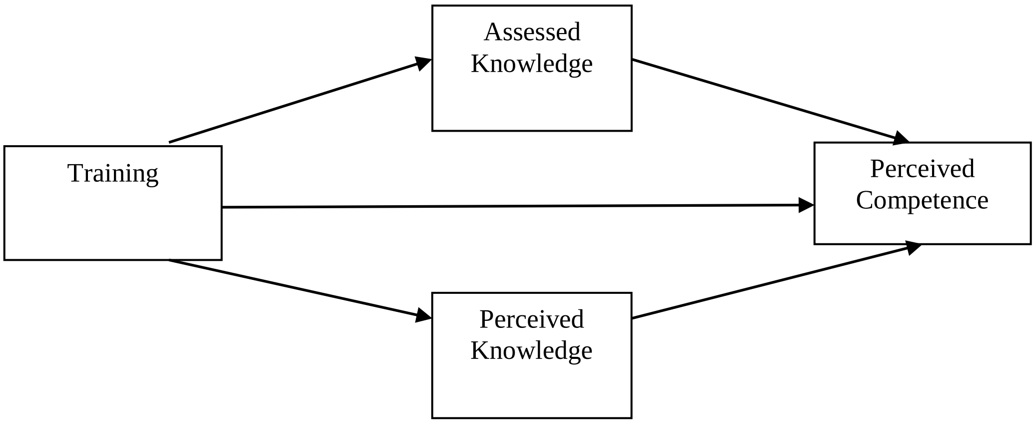

Figure 1. Mediation Model for Participation in Training and Perceived Competence

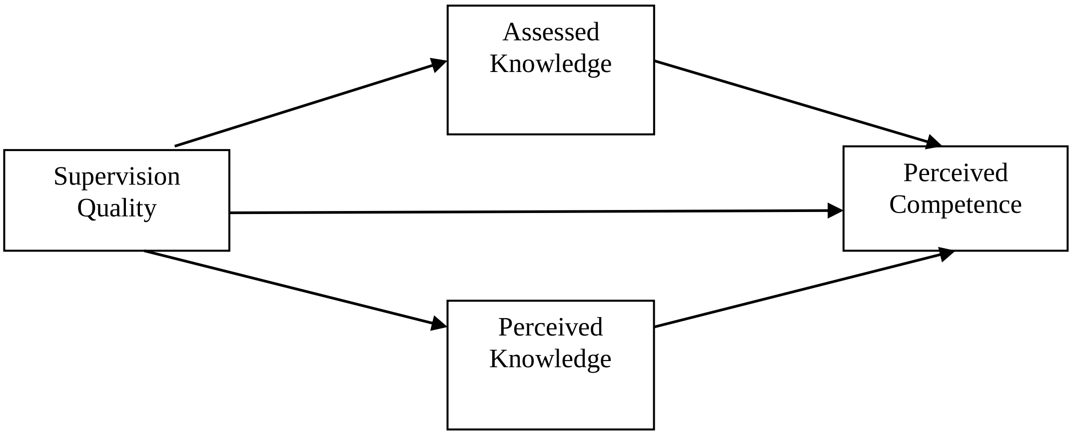

Figure 2. Mediation Model for Supervisor Quality and Perceived Competence

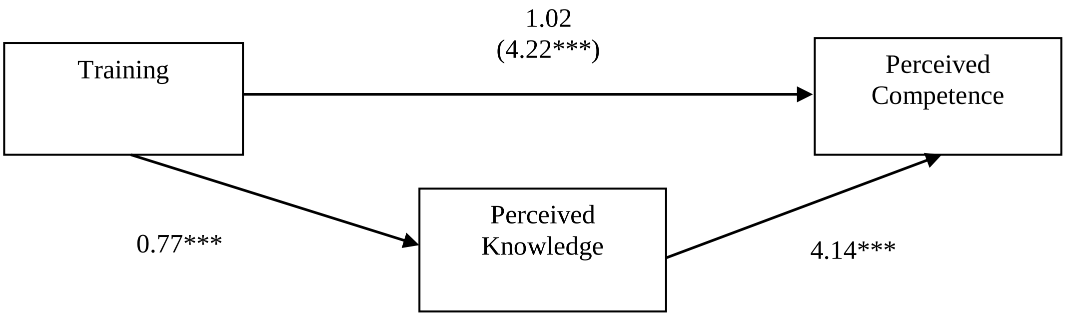

Figure 3. Mediation model of the relationship between Training and Perceived Competence mediated by Perceived Knowledge reporting unstandardized Beta-coefficients and *p* values (*** *p*<0.001). The beta coefficient prior to the proposed mediation is shown in brackets.

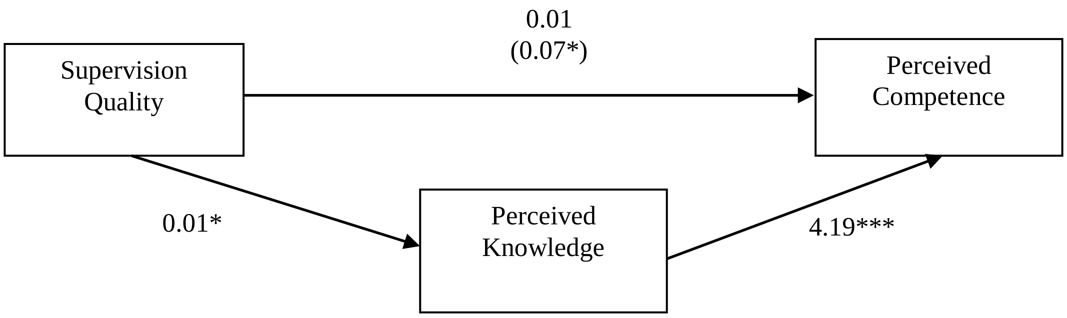

Figure 4. Mediation model of the relationship between Supervision Quality and Perceived Competence mediated by Perceived Knowledge reporting unstandardized Beta-coefficients and p values (**p*<0.05, *** *p*<0.001). The beta coefficient prior to the proposed mediation is shown in brackets.

Appendix C

Perceived Competence Questionnaire

For the following statements, please indicate how much you agree with each statement by entering the number of your choice from the scale below.

1	2	3	4	5
Strongly disagree	Disagree	Neutral / don’t know	Agree	Strongly agree

1. I usually ask my clients about their history of traumatic events
2. I don’t feel comfortable talking with clients about their traumatic experiences
3. I feel comfortable with my knowledge of complex trauma
4. I feel comfortable with my knowledge of mental health problems that may be related to traumatic events
5. I feel comfortable with my knowledge of effective treatment approaches for complex post traumatic stress disorder
6. I am confident in my ability to treat complex post traumatic stress disorder
7. I believe I can detect symptoms of complex post traumatic stress disorder
8. I have worked with a lot of clients who have symptoms of complex post traumatic stress disorder

Appendix D

Assessed Knowledge Questionnaire

Please answer the following questions based on your current knowledge of complex trauma. This includes knowledge about mental health difficulties that can develop as a consequence of complex trauma. Throughout this questionnaire, these difficulties are referred to as complex post traumatic stress disorder.

Staff will have a range of knowledge on these topics. Some staff may only have a little knowledge whereas others may have more extensive knowledge. As such, we are not expecting all staff to have substantial knowledge on this topic. We are interested in getting an accurate reflection of your knowledge at the present time. Therefore please do not seek further information prior to answering these questions.

Childhood sexual abuse can often be considered a form of complex trauma. Roughly what percentage of the general population has a history of childhood sexual abuse?

5-15% ☐ 16-25% ☐ 26-35% ☐ 36-45% ☐ 46-55% ☐

Recommended psychological treatments for PTSD and complex post traumatic stress disorder are the same:

Always ☐ Sometimes ☐ Never ☐ Don’t know ☐

Complex post traumatic stress disorder (CPTSD) is a recognised diagnosis in DSM V

Yes ☐ No ☐ Don’t know ☐

Complex post traumatic stress disorder (CPTSD) is a recognised diagnosis in ICD 10

Yes ☐ No ☐ Don’t know ☐

Compared to clients with major depression, clients with difficulties relating to complex trauma are more likely to have difficulties developing a therapeutic relationship

Yes ☐ No ☐ Don’t know ☐

Are you aware of the phased based approach to the treatment of complex post traumatic stress disorder?

Yes ☐ No ☐

Which of the following advocate a phased based approach to treatment of complex traumatic stress disorders:

NICE guidelines Yes ☐ No ☐ Don’t know ☐

International Society for Traumatic
Stress Studies Yes ☐ No ☐ Don’t know ☐

The Psychological Therapies Matrix Yes ☐ No ☐ Don’t know ☐

In phased based approaches to treatment of complex traumatic stress disorder, how many stages are there?

2 ☐ 3 ☐ 4 ☐ 5 ☐ Don’t know ☐

Individuals who have experienced complex trauma should be encouraged to disclose their experiences

Always ☐ Sometimes ☐ Never ☐ Don’t know ☐

Compared to psychological treatments of major depression, when treating difficulties relating to complex trauma, the therapeutic relationship is:

Less important ☐ As important ☐ More important ☐ Don’t know ☐

In clients presenting with comorbid substance misuse and complex post traumatic stress disorder, traumatic memories should generally be addressed prior to addressing the substance misuse

Yes ☐ No ☐ Don’t know ☐

Which of the following have been found to be associated with a history of complex trauma?

Phobias Yes ☐ No ☐ Don’t know ☐

Psychosis Yes ☐ No ☐ Don’t know ☐

Section Four: Contributions to Theory and Practice

Contributions to Theory and Practice

This final paper aims to discuss the theoretical implications of the literature review and empirical study and provide recommendations for future research. The clinical implications of these will be discussed alongside recommendations for services.

Theoretical and Research Implications

Burnout

Findings from the literature review demonstrate that clinicians working in trauma specific services are more likely to experience burnout than those in generic mental health services. However, there does not appear to be a clear relationship between the amount of exposure to secondary trauma and burnout. The general theory of burnout suggests that it may result from a combination of excessive demands and a lack of resources to manage these (Demerouti, Bakker, Nachreiner & Schaufeli, 2001). This will be explored in detail below along with recommendations for future research.

Emotional demands

Working with the psychological consequences of trauma is a particularly emotionally demanding form of mental health work, where clinicians may be exposed to vivid descriptions of distressing events (Iliffe & Steed, 2000). The rationale for this literature review was based on the theory that working with survivors of trauma may be linked to higher emotional demands and hence more likely to result in burnout.

The finding that clinicians working in trauma specific services have higher levels of burnout, particularly exhaustion, initially appears to support this theory. However, the literature review did not indicate a dose-effect relationship between trauma exposure and burnout, which would be expected if burnout results directly from the distressing impact of secondary trauma exposure. Whilst this may appear to be counter to the hypothesis that increases in emotional demands through working with trauma results in burnout, there are a number of possible explanations for this.

The complexity and severity of mental health difficulties is known to be positively correlated with the number of traumatic events experienced (Briere, Katlman & Green, 2008). Therefore, it is possible that individuals with more severe difficulties are more likely to end up in trauma specific services. Of the trauma specific studies included in the review, the majority focused on services working with clients who are likely to be presenting with complex trauma reactions, for example domestic violence, torture, and veterans and war survivors services.

Research indicates that burnout is related to working with more severe mental health difficulties (Acker, 1999). Furthermore, as well as more severe mental health difficulties, individuals with a history of complex trauma may be more likely to struggle with relationships, including forming a therapeutic relationship (Pearlman & Courtois, 2005) and clinicians' experiences of strong emotions in session, such as anxiety, are correlated with burnout (Steel, Macdonald, Schroder & Mellor-Clark, 2015). The additional emotional demands of working with these clients may lead to burnout, not only through distress resulting from secondary exposure to trauma, but also through emotional dissonance, whereby clinicians are required to inhibit their emotional responses and at times express emotions inconsistent with those they are experiencing (Scanlan & Still, 2013). This can be particularly relevant when working with clients who have experienced trauma and are more likely to express anger or high emotional arousal (Dalenberg, 2004). As such, it may be that the increase in burnout within these services results from the additional emotional demands of working with clients with more complex and severe difficulties, rather than as a result of exposure to descriptions of trauma.

To further explore this, studies would benefit from reporting in detail on the presenting difficulties of trauma survivors. This should include a measure of the complexity and severity of clients' difficulties, distinguishing between simple and complex trauma, and an objective measure of the emotional demands working with these clients. This would give a clearer indication of whether burnout is due to specific client factors, such as the severity of their difficulties, therapeutic ruptures, and managing high expressed emotion, rather than the emotional demands following from secondary trauma exposure. It should be noted that although client factors correlate with burnout, organisational factors such as caseload and organisational support have been found to be the strongest predictors of burnout (Schulz, Greenley & Brown, 1995). Therefore, future research needs to measure and control for these effects if the specific client factors relevant to trauma work are to be explored accurately.

Lack of resources

When working with complex trauma, there are indications that higher emotional demands are placed on clinicians. Without the appropriate resources to manage these demands, clinicians may be more likely to experience burnout. The conservation of resources theory proposes that individuals seek to both obtain and retain resources (Wright & Hobfoll, 2004). These can include psychological resources such as confidence and beliefs about self-efficacy, which are linked to having the appropriate knowledge and skills to work with clients (Gorgievski & Hobfoll, 2008). Applied specifically to burnout, conservation of resources theory implies that when clinicians feel that they do not have adequate resources for their role, they are more likely to experience symptoms of burnout (Jourdain & Chenevert, 2009). In support of this, research indicates that clinicians experience increased stress at work when they do not have the appropriate knowledge to undertake their role (Donat & McKeegan, 1997) and when resources such as supervision and training are available to clinicians they are less likely to become burntout (Ben-Porat & Itzhaky, 2011).

The potentially high demands and lack of resources, both personal and organisational, for clinicians working with trauma not only have potentially negative outcomes for clinicians in terms of burnout, but may also impact on the quality of care which clients receive (Morse, Salyers, Rollins, Monroe-DeVita & Pfahler, 2012). One of the mechanisms leading to lower quality care may be a lack of evidence based practices (EBPs) as staff with higher levels of burnout are less likely to implement EBPs or to use new and innovative treatments (Corrigan, Steiner, McCracken, Blaser & Barr, 2001).

Evidence based practice

Evidence based practice is known to be poor in mental health services (Proctor et al., 2009) and research has highlighted many factors which prevent clinicians from providing optimal care (Powell et al, 2012). There are many theories and models used to explain the barriers to, and facilitators of, clinician behaviour change (See Tabak, Khoong, Chambers & Brownson, 2012, for a review). Whilst these are beyond the scope of this commentary to synthesise, variables relevant to those explored in the aforementioned review and empirical paper will be discussed in relation to the use of evidence based practice with reference to relevant theories.

Knowledge and competence

The empirical paper in this study explored variables relevant to modifying clinicians' behaviour. These included training and supervision, investigating their impact on clinician knowledge and perceived competence, both of which are known to correlate with the implementation of EBP (Cochrane et al., 2007; Grol & Grimshaw, 2003). Findings indicated that around half of staff had not had further training in working with complex trauma and training was significantly related to an objective assessment of knowledge. Levels of perceived competence were generally high and training and supervision quality was related to higher perceived competence. This relationship appears to be as a result of clinicians perceiving themselves to be more knowledgeable, rather than due to increases in assessed knowledge.

To successfully implement EBPs, first clinicians must have an awareness of the evidence base and appropriate knowledge to gauge their level of competency. A four stage learning model (Howell, 1982) has been proposed to understand how individuals learn and develop competencies. This can be used to provide a framework for considering the current levels of knowledge and perceived competence in clinicians. According to this model, individuals move sequentially through the stages and cannot achieve full competence without first becoming aware of the areas in which they lack competence. However, failure to continue with professional development will lead to clinician practices becoming out of date and clinicians will return to the initial stage of unconscious incompetence (Purnell & Paulanka 1998). Unconscious incompetence refers to clinicians lacking awareness that they do not have the necessary skills and knowledge to effectively undertake a task such as providing treatment. Following on from this stage is conscious incompetence. At this stage clinicians are aware of the necessary knowledge and skills but do not possess these. Ideally clinicians then develop the skills and knowledge to become competent and move into the stage of conscious competence where they have the relevant knowledge and abilities but apply these with effort. The final stage in the model is that of an expert clinician who is unconsciously competent and applies the relevant skills and knowledge naturally.

From the current empirical study, there is an indication that many clinicians fall into the first two categories of unconscious incompetence and conscious incompetence. On average, clinicians rated their competence and knowledge more highly than their assessed knowledge scores would suggest was accurate. Assessed knowledge scores were low, with clinicians scoring an average of 50% of questions correctly. However, the high levels of interest in training suggests that clinicians were interested in learning more and may reflect an awareness of being under skilled to work with this client group.

The ultimate aim is for clinicians to reach the stages of conscious and unconscious competence in delivering evidence based care. For this to occur, staff must have a means of effectively acquiring new knowledge and new skills. The importance of adequate knowledge is demonstrated by the findings of a large systematic review of 256 studies exploring barriers to the implementation of EBPs in health care settings (Cochrane et al., 2007). A lack of knowledge was cited as the most common barrier to implementation of EBPs. Thus, acquiring appropriate knowledge was considered to be the first stage in a behaviour change process within the model they proposed. In the empirical study, knowledge scores were low, and questions specifically about awareness of treatment guidelines and evidence-based approaches were answered correctly by less than 30% of clinicians. However, the empirical study is cross sectional and does not investigate the impact of specific training courses on knowledge. As such, further research would benefit for assessing pre and post knowledge scores following training to determine which training courses are most effective in increasing knowledge and for whom.

Theory of Planned Behaviour

Beyond the stage of knowledge acquisition, having the knowledge and skills to provide optimum clinical care does not necessarily mean that clinicians will deliver interventions based on the available evidence base (Casper, 2007). The theory of planned behaviour proposes that intention to carry out behaviours is influenced by the expected value of these behaviours, social norms, and perceived self-efficacy (Azjen, 1991). This provides some insight into what is likely to prevent and facilitate the application of knowledge to practice.

Expected Value of Behaviours

The expected value of behaviours is likely to be influenced by the clarity of guidance available around the treatment of complex trauma reactions. Models of implementation and dissemination have highlighted that guidelines that are relatively simple are more successfully implemented (Davies & Taylor-Vaisey, 1997) and when the evidence base is of high quality (Grol & Grimshaw, 2003). The current evidence base into the treatment of complex trauma reactions is diffuse, and as yet there are no published British guidelines for the treatment of complex trauma reactions. This may have influenced the knowledge of clinicians in the study who may not have the time or specialist interest to actively appraise and synthesise research on trauma. A lack of clarity over what approaches to take when working with complex trauma is likely to impact on clinicians’ expectations of their effectiveness and hence their use of EBP. Further research would benefit from exploring not only awareness of EBP, but also attitudes towards treatment and expectations of treatment.

Social Norms

Social norms are hypothesised to predict usage of EBP and social influence theories propose that the opinions of others influence behaviour (Mittman, Tonesk & Jacobson, 1992). Research has identified that culture and the habits and beliefs of peers influence the use of practices within services (Moulding, Silagy & Weller, 1999). Within the current research, although not assessing the practices of staff directly, there were significant differences between the recruitment sites in training and knowledge, which may reflect organisational differences. Leadership and supervision are specific organisational factors hypothesised to contribute to the development of norms around EBP (Michie et al., 2005) and future research would benefit from exploring the links between organisational context and clinician practices which may be mediated by factors such as knowledge and perceived competence.

Self-Efficacy

The current study focused on clinicians' perception of competence, which is similar to the concept of self-efficacy described in theories of behaviour change. When clinicians perceive themselves as competent they are more likely to utilise EBP (e.g. Henderson, MacKay & Peterson-Badali, 2006; Turner, Nicholson & Sanders, 2011), to actively work with and address trauma (Salyers, Evans, Bond & Meyer, 2004), and are less likely to experience burnout (Acker, 2010). However, the current study found that perceptions of competence, which may arise following training or supervision, do not occur as a direct result of higher levels of knowledge. This would suggest that there are other processes influencing the development of perceived competence. Studies have found that confidence increases following training (Payne et al., 2002) and it may be that clinicians view both themselves and their abilities more favourably as a result of having attended training and taken active steps towards improving their competence. Whilst this is more likely to lead to clinicians utilising new practices (Corrigan et al., 2001) given that many clinicians may be in a stage of unconscious incompetence, it is essential that future research investigate actual levels of competency. Research would benefit from assessing observable behaviours rather than relying on self-report and ideally would include a measure of assessed competence in the use of EBPs.

Clinical implications

Burnout and Perceived Competence

In order for staff to provide optimal care, they need to be knowledgeable and perceive themselves as competent to have the confidence to change their practices. The high levels of personal accomplishment and sense of competence, as well as the majority of staff receiving high quality supervision, found in the studies have positive implications for services. These factors are more likely to lead to clinicians discussing difficult issues such as trauma with clients and result in a reduced risk of burnout (Ben-Porat & Itzhaky, 2011; Read, McGregor, Coggon & Thomas, 2006; Salyers et al., 2004). However, the findings on burnout indicate that staff working with complex and potentially challenging individuals may be at higher risk of burnout (Acker, 1999) and organisations should ensure that clinicians have adequate resources to minimise their risk. This includes support in the form of supervision and provision of adequate training. This is also likely to lead to higher levels of perceived competence (Salyers et al., 2004), which is a protective factor for burnout (Acker, 2010). Organisational factors such as appropriate caseloads and clear leadership are also likely to be protective (Crawford, Adedeji, Price & Rutter, 2010; Hannigan, Edwards, Coyle, Fothergill & Burnard, 2000).

Knowledge and Training

To improve the care provided to clients, clinicians must first acquire the relevant knowledge. The research highlighted that whilst participation in training was related to higher levels of knowledge, there were specific training variables that predicted knowledge. Participation in training that is interactive and that focuses on specific interventions is likely to be the most effective in increasing knowledge. However, more general awareness training may have other beneficial outcomes not explored such as improving attitudes and general understanding around trauma.

An advantage of training is that it can provide high quality, accurate and relevant knowledge targeted to clinicians' needs. Whilst knowledge can be self-taught there is no current clear synthesis within the UK of the research on EBPs for complex trauma reactions. Given the clinical governance concerns regarding the lack of knowledge of clinicians providing services, provision of training is likely to be the most reliable means of addressing this deficit.

Whilst supervision was linked to an higher levels of knowledge, this effect was smaller compared to the effect of training, despite supervision generally being reported to be in the efficacious range as scored on the MCSS-26 (Winstanley & White, 2013). However, supervision may be especially useful for helping clinicians translate knowledge into practice and this has been supported by findings indicating that clinicians are more competent in EBP when they receive both training and supervision (Beidas & Kendall, 2010). Therefore, it is important that supervisors have an awareness of the knowledge base and an understanding of their role in providing feedback and encouraging appropriate clinical practice.

Organisational Factors

Having a service with clear expectations and guidelines around the treatment of complex trauma and for this to be reflected in the opinions and norms of most staff will increase the likelihood of clinicians applying EBPs (Michie et al., 2005). As such, coordinated training strategies are likely to be more effective than individuals pursuing different forms of training, which may result in different perceptions and expectations of staff around ways of working with clients with complex trauma related difficulties.

Development of clear and concise guidelines and syntheses of the evidence base would be of benefit to clinicians to guide their practice to encourage the provision of optimum patient care. At the current time there are specific guidelines into the treatment of complex trauma reactions being developed and these are out for consultation within the UK (UK Psychological Trauma Society, 2016). Publication of these would provide a clear structure and advice for clinicians to guide their clinical practice. However, publication of these guidelines is not in itself likely to be sufficient and effective dissemination of these is essential for clinicians to be aware of and effectively implement the guidelines.

The empirical study indicated a significant difference between the two health boards on levels of training and on levels of assessed knowledge, but not for perceived competence. Given that there are differences between the two health boards, lessons can be learned in developing and improving services to become more trauma-informed. Anecdotally, there appeared to be differences between health boards in the recognition and perceived relevance of complex trauma, with staff demonstrating a lack of awareness of complex trauma and challenging the relevance of trauma in the mental health difficulties of clients on a number of occasions.

There are differences within the provision of guidance and training in the health boards in Scotland and Wales, which may go some way to explain the above differences in organisational factors and provide an indication on ways to most effectively improve the knowledge and practices of staff. Within Scotland, the impact of trauma has been recognised in the Mental Health Strategy (Scottish Executive, 2012) and there are clear recommendations around the treatment of complex traumatic stress reactions (NES, 2011). In addition, a coordinated training strategy through NHS Education for Scotland (NES) has been implemented (NES, 2015). Within Wales, trauma is less well established within organisational and national contexts as evidenced by a dearth of law, policy and guidance. A notable recent exception is the impact of gender based violence and sexual violence, which has now been recognised in the Violence against Women, Domestic Violence and Sexual Violence (Wales)

Act (Welsh Government, 2015). Importantly, this Act includes a recommendation for additional staff training (Welsh Government, 2015). However, there are currently no clear plans around how this recommendation will be disseminated nationally to mental health services or at a local level.

Clinical Recommendations

The literature review and empirical paper contribute to our understanding of factors that are likely to impact on both the wellbeing of staff and the quality of care they provide when working with complex trauma. The aforementioned studies are considered to be particularly relevant in terms of providing an insight into how the quality of trauma treatment within services can be improved. Therefore, the clinical recommendations stemming directly from the findings of these papers are summarised below.

- A coordinated training plan should be implemented to improve the knowledge of clinicians. This will help to ensure that clinicians have shared expectations around what constitutes efficacious treatment and will encourage a culture of EBP within services.
- Regular high quality supervision should be provided. It is important that supervisors are aware of the evidence base as they are in a unique position to provide feedback and shape clinicians' behaviour, demonstrating and encouraging an expected standard of EBP.
- The development of clinical guidelines will provide clarification for clinicians and services around the presenting difficulties and treatment options for clients who experience difficulties linked with complex trauma. Whilst these are currently being developed, it is important that they are disseminated effectively at all levels. This would be aided by clear targets and strategies filtering down from government level, as well

as at a local level with consistency across health boards around what services will be provided and how this will be achieved.

- In order to minimise the risk of burnout for staff working with complex clients, services should work to ensure that other demands are appropriate, such as caseloads and clear management and organisational structures. The previous recommendations aimed at upskilling clinicians are also likely to be protective for burnout.

Conclusions

Working with survivors of trauma, particularly complex trauma can be an emotionally demanding experience for which staff appear to lack knowledge around appropriate treatment approaches. However, the empirical study indicated that staff are motivated and interested to develop their knowledge and skills and there are clear recommendations for the ways in which services can achieve this by providing guidelines, supervision and training for staff. Further research would benefit from assessing the competency of staff to explore which factors predict the effective application of staff knowledge.

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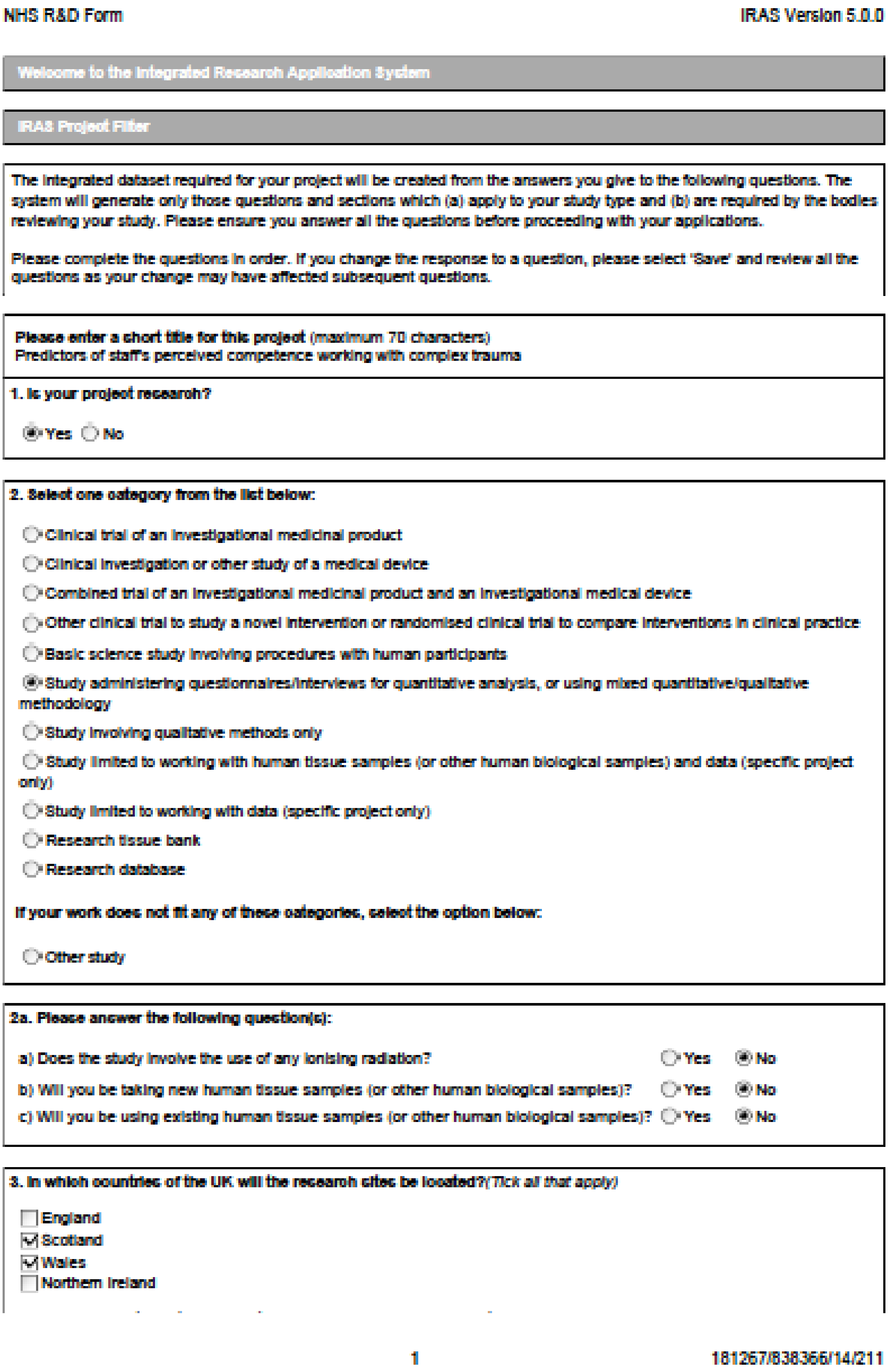
Section Five: Ethics

IRAS Application Form



NHS R&D Form IRAS Version 5.0.0

Welcome to the Integrated Research Application System

IRAS Project Filter

The integrated dataset required for your project will be created from the answers you give to the following questions. The system will generate only those questions and sections which (a) apply to your study type and (b) are required by the bodies reviewing your study. Please ensure you answer all the questions before proceeding with your applications.

Please complete the questions in order. If you change the response to a question, please select 'Save' and review all the questions as your change may have affected subsequent questions.

Please enter a short title for this project (maximum 70 characters)
Predictors of staff's perceived competence working with complex trauma

1. Is your project research?

● Yes ○ No

2. Select one category from the list below:

○ Clinical trial of an investigational medicinal product
○ Clinical investigation or other study of a medical device
○ Combined trial of an investigational medicinal product and an investigational medical device
○ Other clinical trial to study a novel intervention or randomised clinical trial to compare interventions in clinical practice
○ Basic science study involving procedures with human participants
● Study administering questionnaires/interviews for quantitative analysis, or using mixed quantitative/qualitative methodology
○ Study involving qualitative methods only
○ Study limited to working with human tissue samples (or other human biological samples) and data (specific project only)
○ Study limited to working with data (specific project only)
○ Research tissue bank
○ Research database

If your work does not fit any of these categories, select the option below:

○ Other study

2a. Please answer the following question(s):

a) Does the study involve the use of any ionising radiation?	○ Yes	● No
b) Will you be taking new human tissue samples (or other human biological samples)?	○ Yes	● No
c) Will you be using existing human tissue samples (or other human biological samples)?	○ Yes	● No

3. In which countries of the UK will the research sites be located? *(Tick all that apply)*

☐ England
☑ Scotland
☑ Wales
☐ Northern Ireland

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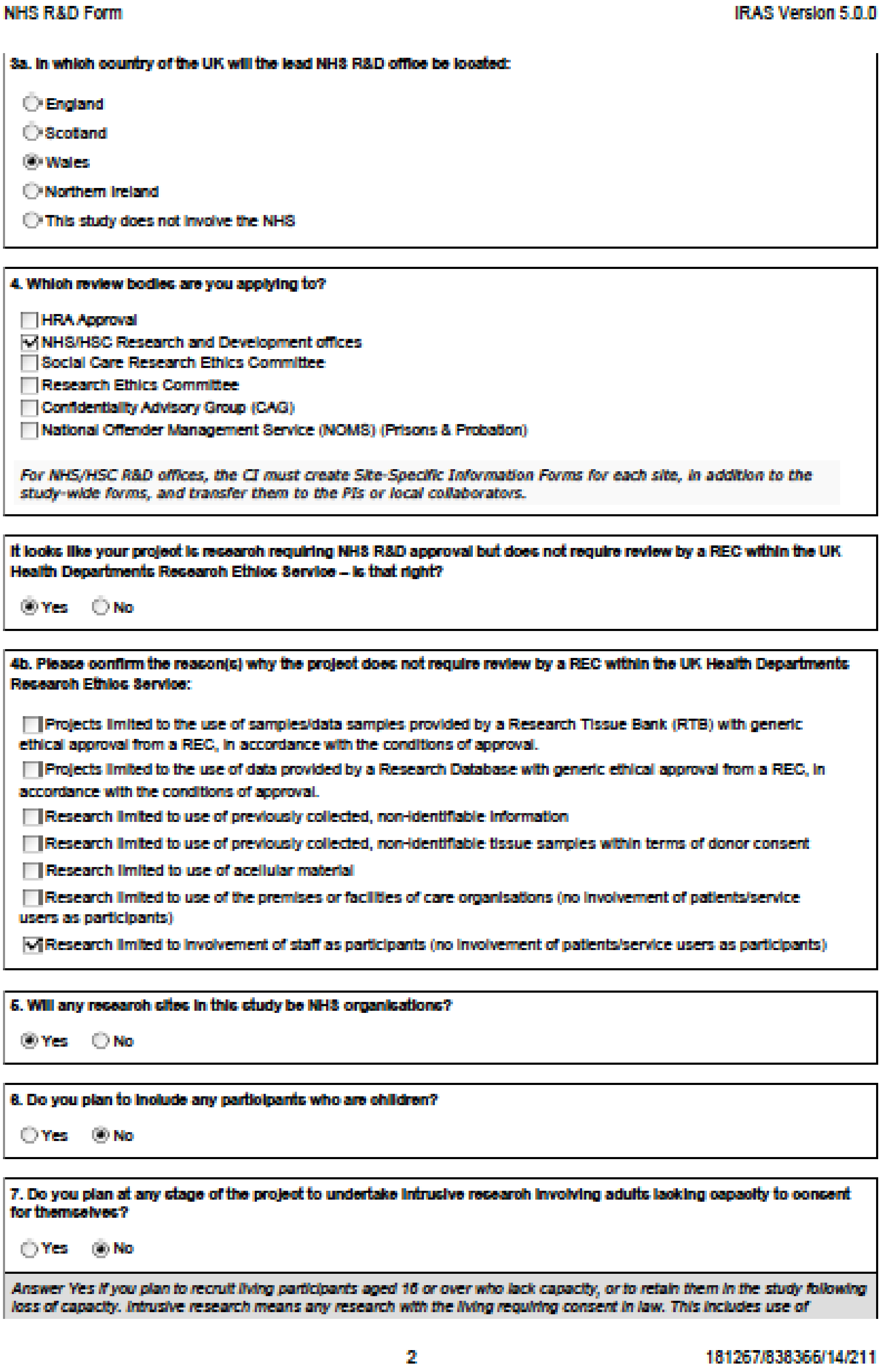

NHS R&D Form IRAS Version 5.0.0

3a. In which country of the UK will the lead NHS R&D office be located:

○ England
○ Scotland
● Wales
○ Northern Ireland
○ This study does not involve the NHS

4. Which review bodies are you applying to?

☐ HRA Approval
☑ NHS/HSC Research and Development offices
☐ Social Care Research Ethics Committee
☐ Research Ethics Committee
☐ Confidentiality Advisory Group (CAG)
☐ National Offender Management Service (NOMS) (Prisons & Probation)

For NHS/HSC R&D offices, the CI must create Site-Specific Information Forms for each site, in addition to the study-wide forms, and transfer them to the PIs or local collaborators.

It looks like your project is research requiring NHS R&D approval but does not require review by a REC within the UK Health Departments Research Ethics Service – is that right?

● Yes ○ No

4b. Please confirm the reason(s) why the project does not require review by a REC within the UK Health Departments Research Ethics Service:

☐ Projects limited to the use of samples/data samples provided by a Research Tissue Bank (RTB) with generic ethical approval from a REC, in accordance with the conditions of approval.
☐ Projects limited to the use of data provided by a Research Database with generic ethical approval from a REC, in accordance with the conditions of approval.
☐ Research limited to use of previously collected, non-identifiable information
☐ Research limited to use of previously collected, non-identifiable tissue samples within terms of donor consent
☐ Research limited to use of acellular material
☐ Research limited to use of the premises or facilities of care organisations (no involvement of patients/service users as participants)
☑ Research limited to involvement of staff as participants (no involvement of patients/service users as participants)

5. Will any research sites in this study be NHS organisations?

● Yes ○ No

6. Do you plan to include any participants who are children?

○ Yes ● No

7. Do you plan at any stage of the project to undertake intrusive research involving adults lacking capacity to consent for themselves?

○ Yes ● No

Answer Yes if you plan to recruit living participants aged 16 or over who lack capacity, or to retain them in the study following loss of capacity. Intrusive research means any research with the living requiring consent in law. This includes use of

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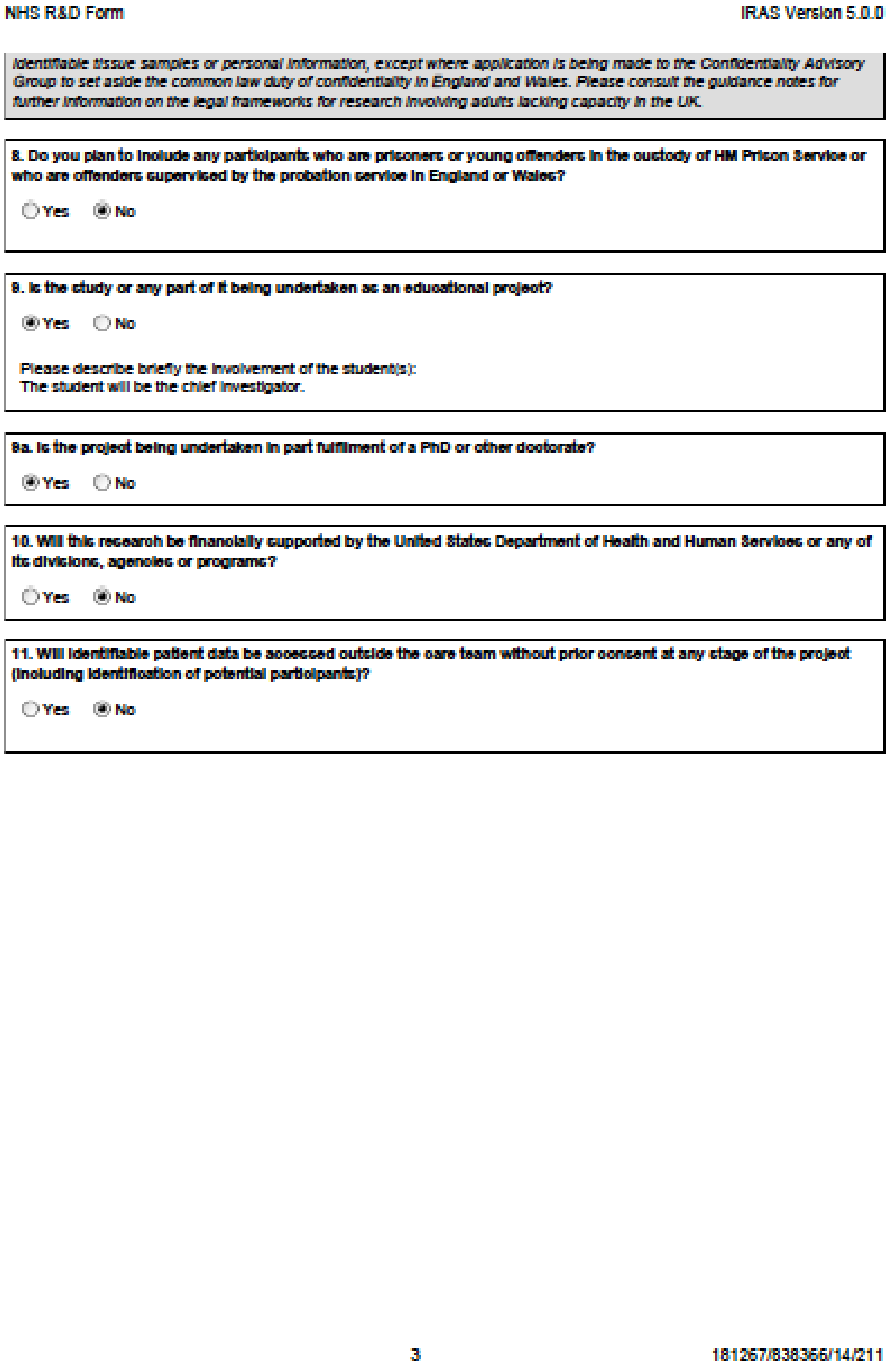


identifiable tissue samples or personal information, except where application is being made to the Confidentiality Advisory Group to set aside the common law duty of confidentiality in England and Wales. Please consult the guidance notes for further information on the legal frameworks for research involving adults lacking capacity in the UK.

8. Do you plan to include any participants who are prisoners or young offenders in the custody of HM Prison Service or who are offenders supervised by the probation service in England or Wales?

○ Yes ● No

9. Is the study or any part of it being undertaken as an educational project?

● Yes ○ No

Please describe briefly the involvement of the student(s):
The student will be the chief investigator.

9a. Is the project being undertaken in part fulfilment of a PhD or other doctorate?

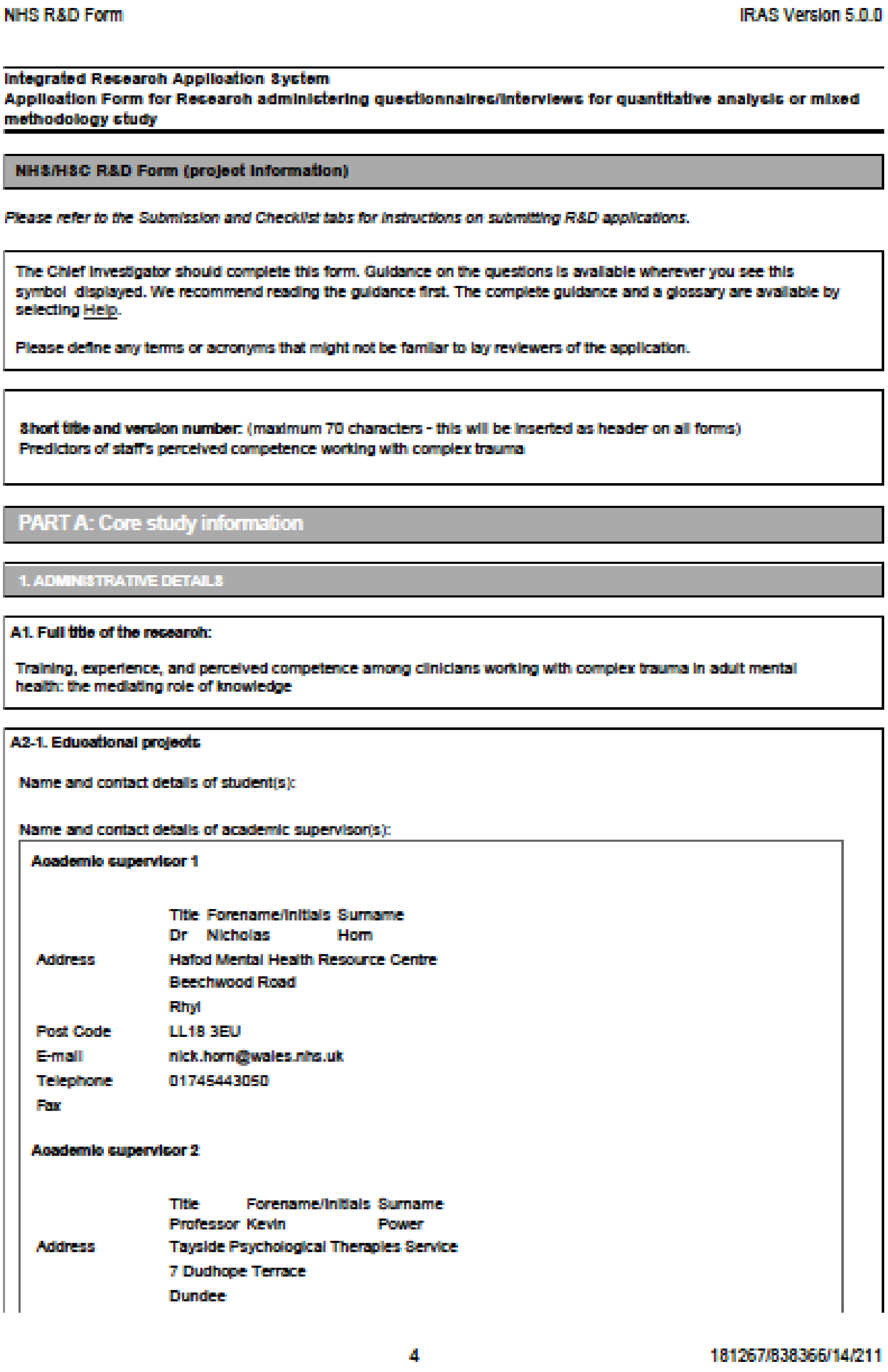
● Yes ○ No

10. Will this research be financially supported by the United States Department of Health and Human Services or any of its divisions, agencies or programs?

○ Yes ● No

11. Will identifiable patient data be accessed outside the care team without prior consent at any stage of the project (including identification of potential participants)?

○ Yes ● No



Integrated Research Application System
Application Form for Research administering questionnaires/interviews for quantitative analysis or mixed methodology study

NHS/HSC R&D Form (project information)

Please refer to the Submission and Checklist tabs for instructions on submitting R&D applications.

The Chief Investigator should complete this form. Guidance on the questions is available wherever you see this symbol displayed. We recommend reading the guidance first. The complete guidance and a glossary are available by selecting Help.

Please define any terms or acronyms that might not be familiar to lay reviewers of the application.

Short title and version number: (maximum 70 characters - this will be inserted as header on all forms)
Predictors of staff's perceived competence working with complex trauma

PART A: Core study information

1. ADMINISTRATIVE DETAILS

A1. Full title of the research:

Training, experience, and perceived competence among clinicians working with complex trauma in adult mental health: the mediating role of knowledge

A2-1. Educational projects

Name and contact details of student(s):

Name and contact details of academic supervisor(s):

Academic supervisor 1

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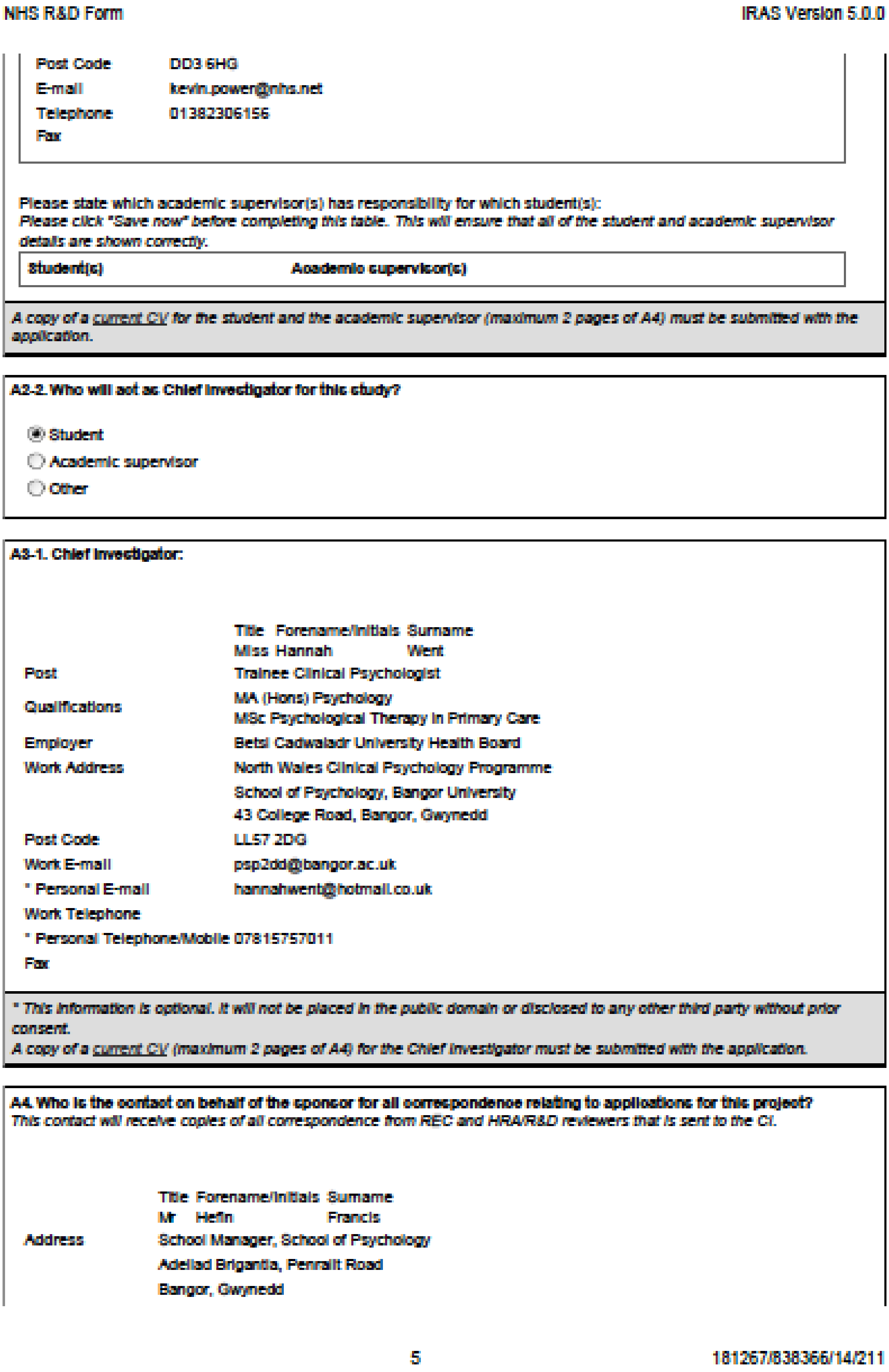
	Professor	Kevin	Power
Address	Tayside Psychological Therapies Service		
	7 Dudhope Terrace		
	Dundee		



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Post Code	DD3 6HG
E-mail	kevin.power@nhs.net
Telephone	01382306156
Fax	

Please state which academic supervisor(s) has responsibility for which student(s):
Please click "Save now" before completing this table. This will ensure that all of the student and academic supervisor details are shown correctly.

Student(s)	**Academic supervisor(s)**

A copy of a current CV for the student and the academic supervisor (maximum 2 pages of A4) must be submitted with the application.

A2-2. Who will act as Chief Investigator for this study?

● Student
○ Academic supervisor
○ Other

A3-1. Chief Investigator:

	Title Forename/Initials Surname
	Miss Hannah Went
Post	Trainee Clinical Psychologist
Qualifications	MA (Hons) Psychology MSc Psychological Therapy in Primary Care
Employer	Betsi Cadwaladr University Health Board
Work Address	North Wales Clinical Psychology Programme School of Psychology, Bangor University 43 College Road, Bangor, Gwynedd
Post Code	LL57 2DG
Work E-mail	psp2dd@bangor.ac.uk
* Personal E-mail	hannahwent@hotmail.co.uk
Work Telephone	
* Personal Telephone/Mobile	07815757011
Fax	

** This information is optional. It will not be placed in the public domain or disclosed to any other third party without prior consent.*
A copy of a current CV (maximum 2 pages of A4) for the Chief Investigator must be submitted with the application.

A4. Who is the contact on behalf of the sponsor for all correspondence relating to applications for this project?
This contact will receive copies of all correspondence from REC and HRA/R&D reviewers that is sent to the CI.

	Title Forename/Initials Surname
	Mr Hefin Francis
Address	School Manager, School of Psychology Adeilad Brigantia, Penrallt Road Bangor, Gwynedd

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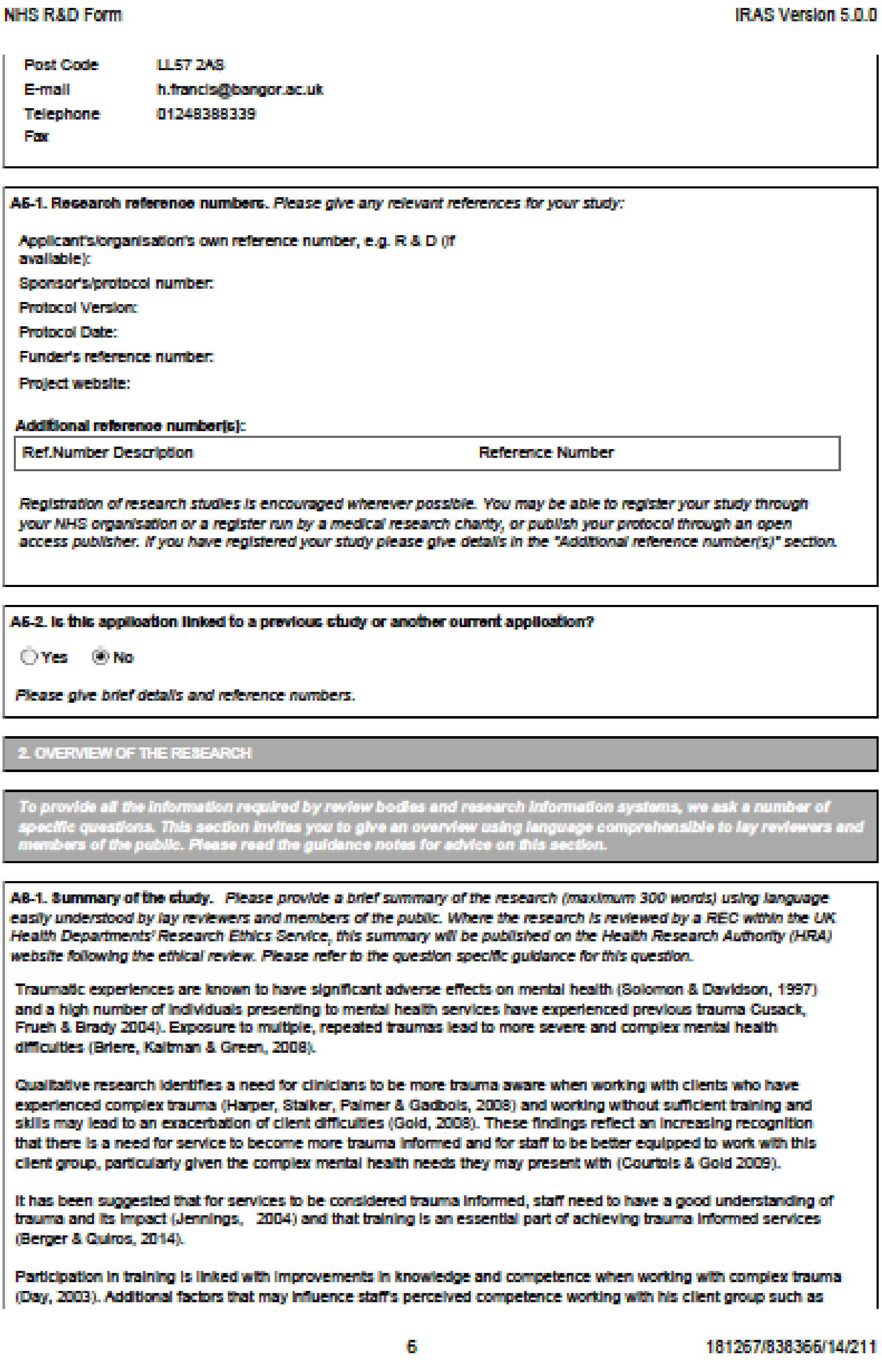

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Post Code	LL57 2AS
E-mail	h.francis@bangor.ac.uk
Telephone	01248388339
Fax	

A5-1. Research reference numbers. *Please give any relevant references for your study:*

Applicant's/organisation's own reference number, e.g. R & D (if available):

Sponsor's/protocol number:

Protocol Version:

Protocol Date:

Funder's reference number:

Project website:

Additional reference number(s):

Ref.Number Description	Reference Number

Registration of research studies is encouraged wherever possible. You may be able to register your study through your NHS organisation or a register run by a medical research charity, or publish your protocol through an open access publisher. If you have registered your study please give details in the "Additional reference number(s)" section.

A5-2. Is this application linked to a previous study or another current application?

○ Yes ● No

Please give brief details and reference numbers.

2. OVERVIEW OF THE RESEARCH

To provide all the information required by review bodies and research information systems, we ask a number of specific questions. This section invites you to give an overview using language comprehensible to lay reviewers and members of the public. Please read the guidance notes for advice on this section.

A6-1. Summary of the study. *Please provide a brief summary of the research (maximum 300 words) using language easily understood by lay reviewers and members of the public. Where the research is reviewed by a REC within the UK Health Departments' Research Ethics Service, this summary will be published on the Health Research Authority (HRA) website following the ethical review. Please refer to the question specific guidance for this question.*

Traumatic experiences are known to have significant adverse effects on mental health (Solomon & Davidson, 1997) and a high number of individuals presenting to mental health services have experienced previous trauma Cusack, Frueh & Brady 2004). Exposure to multiple, repeated traumas lead to more severe and complex mental health difficulties (Briere, Kaltman & Green, 2008).

Qualitative research identifies a need for clinicians to be more trauma aware when working with clients who have experienced complex trauma (Harper, Stalker, Palmer & Gadbois, 2008) and working without sufficient training and skills may lead to an exacerbation of client difficulties (Gold, 2008). These findings reflect an increasing recognition that there is a need for service to become more trauma informed and for staff to be better equipped to work with this client group, particularly given the complex mental health needs they may present with (Courtois & Gold 2009).

It has been suggested that for services to be considered trauma informed, staff need to have a good understanding of trauma and its impact (Jennings, 2004) and that training is an essential part of achieving trauma informed services (Berger & Quiros, 2014).

Participation in training is linked with improvements in knowledge and competence when working with complex trauma (Day, 2003). Additional factors that may influence staff's perceived competence working with his client group such as

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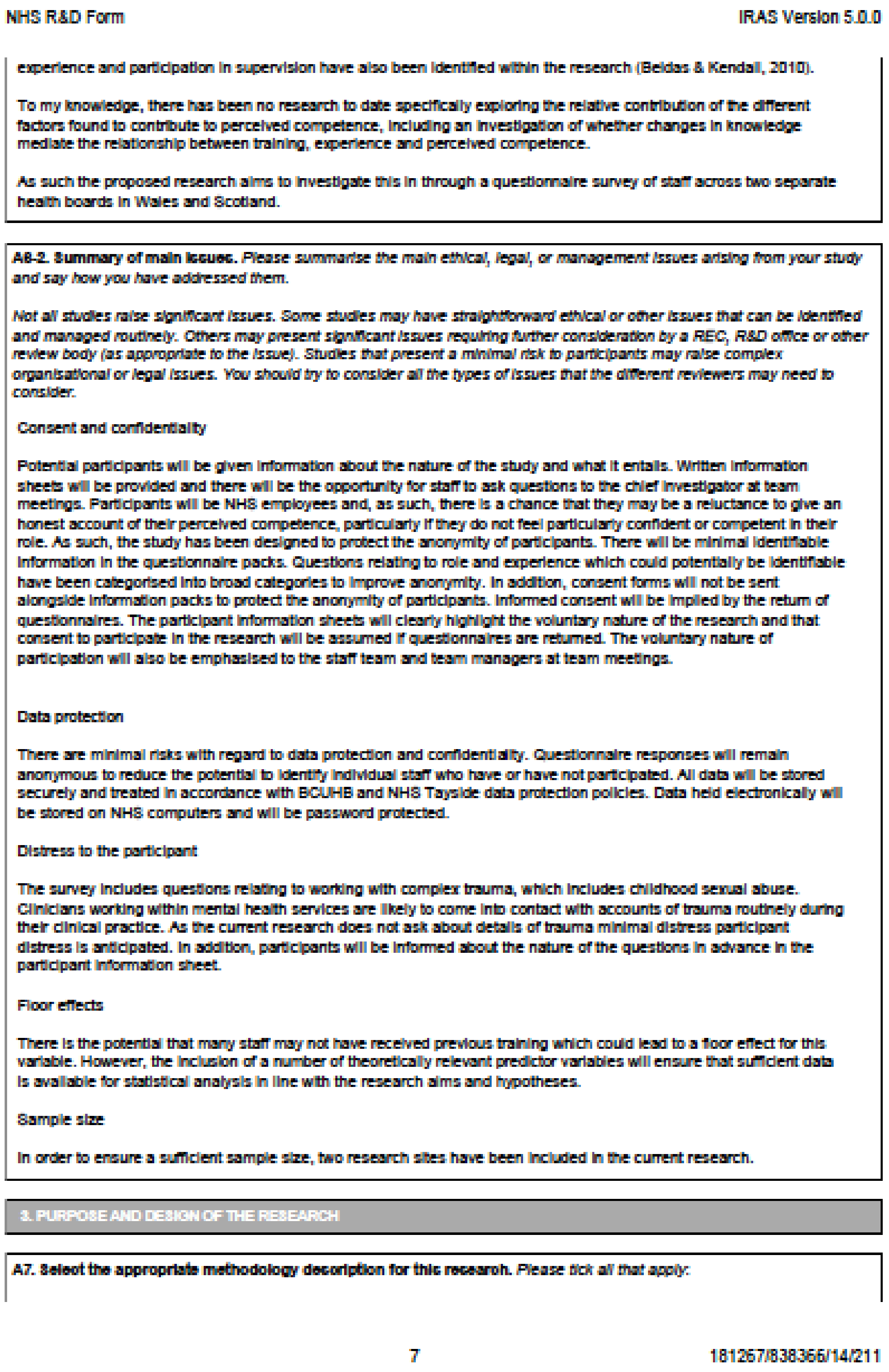


experience and participation in supervision have also been identified within the research (Beidas & Kendall, 2010).

To my knowledge, there has been no research to date specifically exploring the relative contribution of the different factors found to contribute to perceived competence, including an investigation of whether changes in knowledge mediate the relationship between training, experience and perceived competence.

As such the proposed research aims to investigate this in through a questionnaire survey of staff across two separate health boards in Wales and Scotland.

A6-2. Summary of main issues. *Please summarise the main ethical, legal, or management issues arising from your study and say how you have addressed them.*

Not all studies raise significant issues. Some studies may have straightforward ethical or other issues that can be identified and managed routinely. Others may present significant issues requiring further consideration by a REC, R&D office or other review body (as appropriate to the issue). Studies that present a minimal risk to participants may raise complex organisational or legal issues. You should try to consider all the types of issues that the different reviewers may need to consider.

Consent and confidentiality

Potential participants will be given information about the nature of the study and what it entails. Written information sheets will be provided and there will be the opportunity for staff to ask questions to the chief investigator at team meetings. Participants will be NHS employees and, as such, there is a chance that they may be a reluctance to give an honest account of their perceived competence, particularly if they do not feel particularly confident or competent in their role. As such, the study has been designed to protect the anonymity of participants. There will be minimal identifiable information in the questionnaire packs. Questions relating to role and experience which could potentially be identifiable have been categorised into broad categories to improve anonymity. In addition, consent forms will not be sent alongside information packs to protect the anonymity of participants. Informed consent will be implied by the return of questionnaires. The participant information sheets will clearly highlight the voluntary nature of the research and that consent to participate in the research will be assumed if questionnaires are returned. The voluntary nature of participation will also be emphasised to the staff team and team managers at team meetings.

Data protection

There are minimal risks with regard to data protection and confidentiality. Questionnaire responses will remain anonymous to reduce the potential to identify individual staff who have or have not participated. All data will be stored securely and treated in accordance with BCUHB and NHS Tayside data protection policies. Data held electronically will be stored on NHS computers and will be password protected.

Distress to the participant

The survey includes questions relating to working with complex trauma, which includes childhood sexual abuse. Clinicians working within mental health services are likely to come into contact with accounts of trauma routinely during their clinical practice. As the current research does not ask about details of trauma minimal distress participant distress is anticipated. In addition, participants will be informed about the nature of the questions in advance in the participant information sheet.

Floor effects

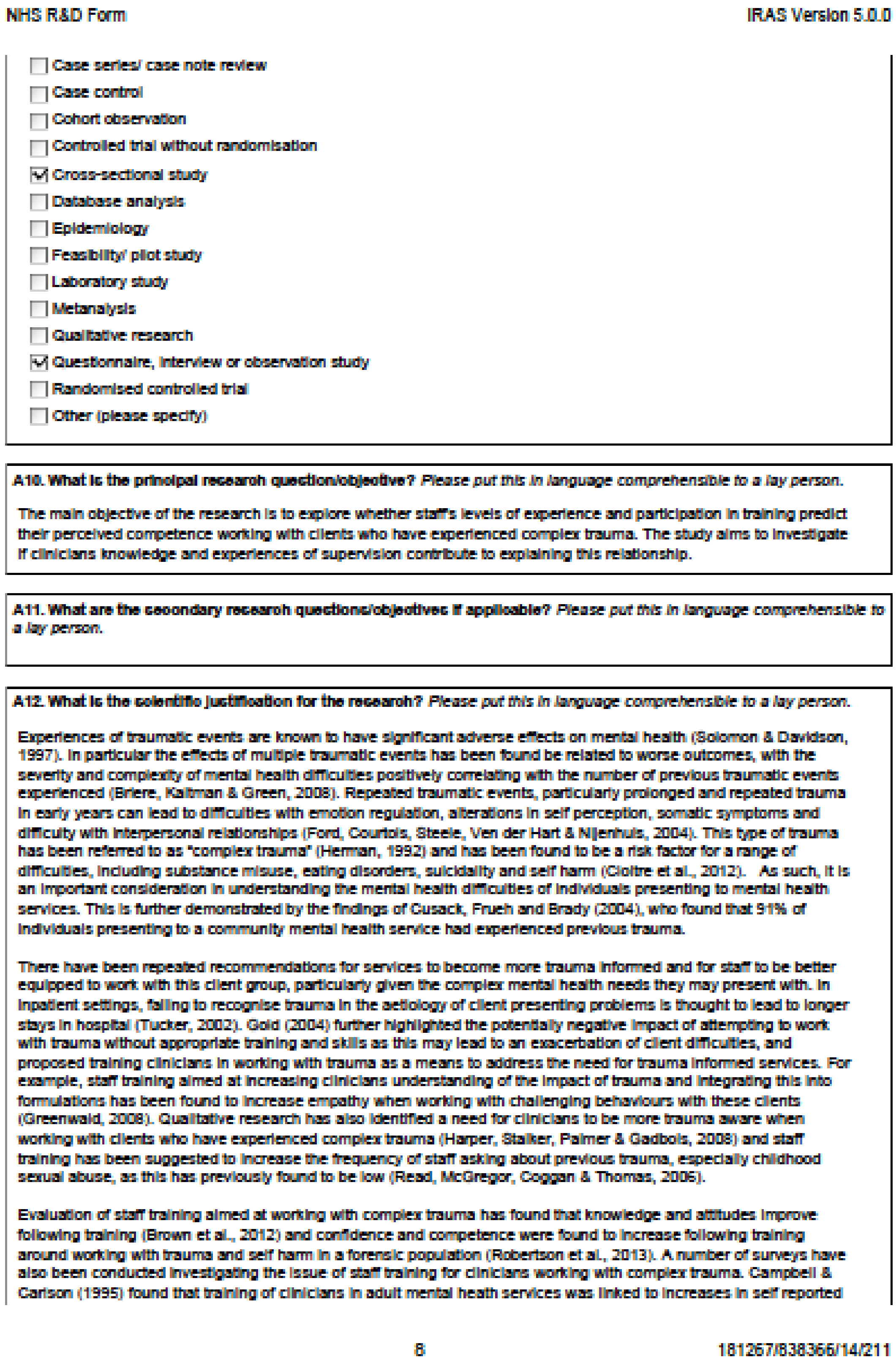
There is the potential that many staff may not have received previous training which could lead to a floor effect for this variable. However, the inclusion of a number of theoretically relevant predictor variables will ensure that sufficient data is available for statistical analysis in line with the research aims and hypotheses.

Sample size

In order to ensure a sufficient sample size, two research sites have been included in the current research.

3. PURPOSE AND DESIGN OF THE RESEARCH

A7. Select the appropriate methodology description for this research. *Please tick all that apply:*



☐ Case series/ case note review
☐ Case control
☐ Cohort observation
☐ Controlled trial without randomisation
☑ Cross-sectional study
☐ Database analysis
☐ Epidemiology
☐ Feasibility/ pilot study
☐ Laboratory study
☐ Metanalysis
☐ Qualitative research
☑ Questionnaire, interview or observation study
☐ Randomised controlled trial
☐ Other (please specify)

A10. What is the principal research question/objective? *Please put this in language comprehensible to a lay person.*

The main objective of the research is to explore whether staff's levels of experience and participation in training predict their perceived competence working with clients who have experienced complex trauma. The study aims to investigate if clinicians knowledge and experiences of supervision contribute to explaining this relationship.

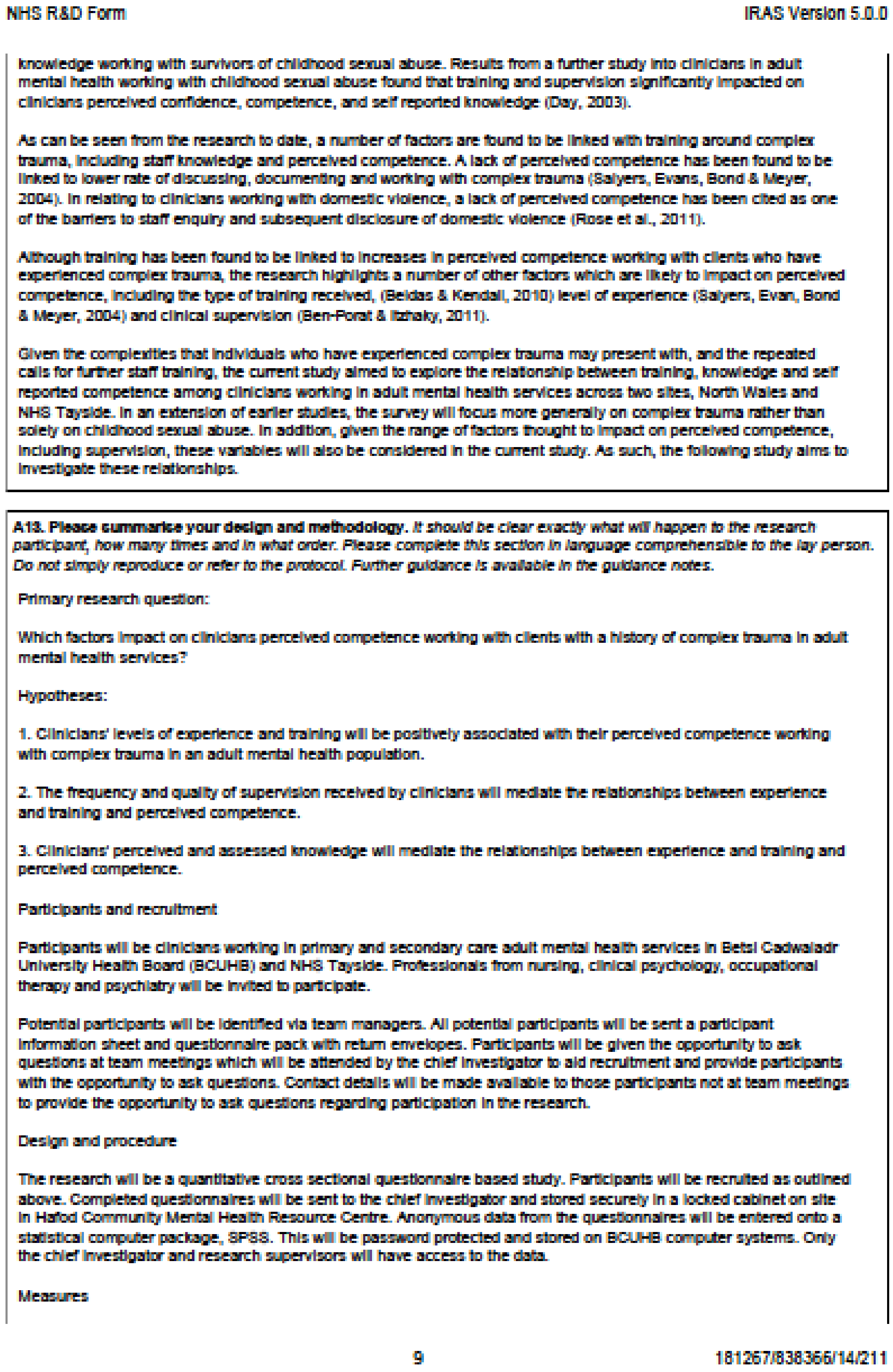
A11. What are the secondary research questions/objectives if applicable? *Please put this in language comprehensible to a lay person.*

A12. What is the scientific justification for the research? *Please put this in language comprehensible to a lay person.*

Experiences of traumatic events are known to have significant adverse effects on mental health (Solomon & Davidson, 1997). In particular the effects of multiple traumatic events has been found be related to worse outcomes, with the severity and complexity of mental health difficulties positively correlating with the number of previous traumatic events experienced (Briere, Kaltman & Green, 2008). Repeated traumatic events, particularly prolonged and repeated trauma in early years can lead to difficulties with emotion regulation, alterations in self perception, somatic symptoms and difficulty with interpersonal relationships (Ford, Courtois, Steele, Ven der Hart & Nijenhuis, 2004). This type of trauma has been referred to as "complex trauma" (Herman, 1992) and has been found to be a risk factor for a range of difficulties, including substance misuse, eating disorders, suicidality and self harm (Cloitre et al., 2012). As such, it is an important consideration in understanding the mental health difficulties of individuals presenting to mental health services. This is further demonstrated by the findings of Cusack, Frueh and Brady (2004), who found that 91% of individuals presenting to a community mental health service had experienced previous trauma.

There have been repeated recommendations for services to become more trauma informed and for staff to be better equipped to work with this client group, particularly given the complex mental health needs they may present with. In inpatient settings, failing to recognise trauma in the aetiology of client presenting problems is thought to lead to longer stays in hospital (Tucker, 2002). Gold (2004) further highlighted the potentially negative impact of attempting to work with trauma without appropriate training and skills as this may lead to an exacerbation of client difficulties, and proposed training clinicians in working with trauma as a means to address the need for trauma informed services. For example, staff training aimed at increasing clinicians understanding of the impact of trauma and integrating this into formulations has been found to increase empathy when working with challenging behaviours with these clients (Greenwald, 2008). Qualitative research has also identified a need for clinicians to be more trauma aware when working with clients who have experienced complex trauma (Harper, Stalker, Palmer & Gadbois, 2008) and staff training has been suggested to increase the frequency of staff asking about previous trauma, especially childhood sexual abuse, as this has previously found to be low (Read, McGregor, Coggan & Thomas, 2006).

Evaluation of staff training aimed at working with complex trauma has found that knowledge and attitudes improve following training (Brown et al., 2012) and confidence and competence were found to increase following training around working with trauma and self harm in a forensic population (Robertson et al., 2013). A number of surveys have also been conducted investigating the issue of staff training for clinicians working with complex trauma. Campbell & Carlson (1995) found that training of clinicians in adult mental heath services was linked to increases in self reported



knowledge working with survivors of childhood sexual abuse. Results from a further study into clinicians in adult mental health working with childhood sexual abuse found that training and supervision significantly impacted on clinicians perceived confidence, competence, and self reported knowledge (Day, 2003).

As can be seen from the research to date, a number of factors are found to be linked with training around complex trauma, including staff knowledge and perceived competence. A lack of perceived competence has been found to be linked to lower rate of discussing, documenting and working with complex trauma (Salyers, Evans, Bond & Meyer, 2004). In relating to clinicians working with domestic violence, a lack of perceived competence has been cited as one of the barriers to staff enquiry and subsequent disclosure of domestic violence (Rose et al., 2011).

Although training has been found to be linked to increases in perceived competence working with clients who have experienced complex trauma, the research highlights a number of other factors which are likely to impact on perceived competence, including the type of training received, (Beidas & Kendall, 2010) level of experience (Salyers, Evan, Bond & Meyer, 2004) and clinical supervision (Ben-Porat & Itzhaky, 2011).

Given the complexities that individuals who have experienced complex trauma may present with, and the repeated calls for further staff training, the current study aimed to explore the relationship between training, knowledge and self reported competence among clinicians working in adult mental health services across two sites, North Wales and NHS Tayside. In an extension of earlier studies, the survey will focus more generally on complex trauma rather than solely on childhood sexual abuse. In addition, given the range of factors thought to impact on perceived competence, including supervision, these variables will also be considered in the current study. As such, the following study aims to investigate these relationships.

A13. Please summarise your design and methodology. *It should be clear exactly what will happen to the research participant, how many times and in what order. Please complete this section in language comprehensible to the lay person. Do not simply reproduce or refer to the protocol. Further guidance is available in the guidance notes.*

Primary research question:

Which factors impact on clinicians perceived competence working with clients with a history of complex trauma in adult mental health services?

Hypotheses:

1. Clinicians' levels of experience and training will be positively associated with their perceived competence working with complex trauma in an adult mental health population.

2. The frequency and quality of supervision received by clinicians will mediate the relationships between experience and training and perceived competence.

3. Clinicians' perceived and assessed knowledge will mediate the relationships between experience and training and perceived competence.

Participants and recruitment

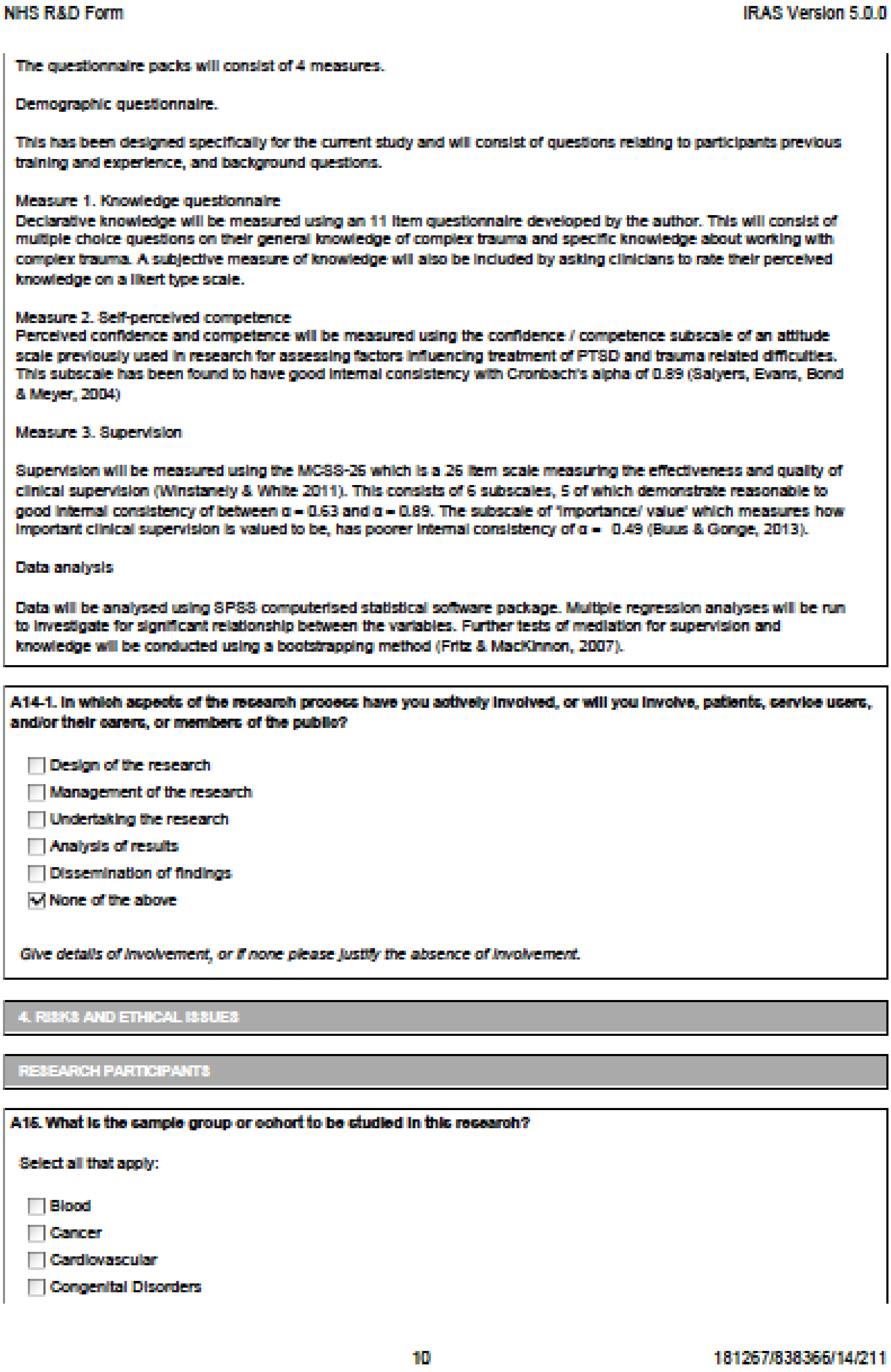
Participants will be clinicians working in primary and secondary care adult mental health services in Betsi Cadwaladr University Health Board (BCUHB) and NHS Tayside. Professionals from nursing, clinical psychology, occupational therapy and psychiatry will be invited to participate.

Potential participants will be identified via team managers. All potential participants will be sent a participant information sheet and questionnaire pack with return envelopes. Participants will be given the opportunity to ask questions at team meetings which will be attended by the chief investigator to aid recruitment and provide participants with the opportunity to ask questions. Contact details will be made available to those participants not at team meetings to provide the opportunity to ask questions regarding participation in the research.

Design and procedure

The research will be a quantitative cross sectional questionnaire based study. Participants will be recruited as outlined above. Completed questionnaires will be sent to the chief investigator and stored securely in a locked cabinet on site in Hafod Community Mental Health Resource Centre. Anonymous data from the questionnaires will be entered onto a statistical computer package, SPSS. This will be password protected and stored on BCUHB computer systems. Only the chief investigator and research supervisors will have access to the data.

Measures



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The questionnaire packs will consist of 4 measures.

Demographic questionnaire.

This has been designed specifically for the current study and will consist of questions relating to participants previous training and experience, and background questions.

Measure 1. Knowledge questionnaire
Declarative knowledge will be measured using an 11 item questionnaire developed by the author. This will consist of multiple choice questions on their general knowledge of complex trauma and specific knowledge about working with complex trauma. A subjective measure of knowledge will also be included by asking clinicians to rate their perceived knowledge on a likert type scale.

Measure 2. Self-perceived competence
Perceived confidence and competence will be measured using the confidence / competence subscale of an attitude scale previously used in research for assessing factors influencing treatment of PTSD and trauma related difficulties. This subscale has been found to have good internal consistency with Cronbach's alpha of 0.89 (Salyers, Evans, Bond & Meyer, 2004)

Measure 3. Supervision

Supervision will be measured using the MCSS-26 which is a 26 item scale measuring the effectiveness and quality of clinical supervision (Winstanely & White 2011). This consists of 6 subscales, 5 of which demonstrate reasonable to good internal consistency of between α = 0.63 and α = 0.89. The subscale of 'importance/ value' which measures how important clinical supervision is valued to be, has poorer internal consistency of α = 0.49 (Buus & Gonge, 2013).

Data analysis

Data will be analysed using SPSS computerised statistical software package. Multiple regression analyses will be run to investigate for significant relationship between the variables. Further tests of mediation for supervision and knowledge will be conducted using a bootstrapping method (Fritz & MacKinnon, 2007).

A14-1. In which aspects of the research process have you actively involved, or will you involve, patients, service users, and/or their carers, or members of the public?

☐ Design of the research
☐ Management of the research
☐ Undertaking the research
☐ Analysis of results
☐ Dissemination of findings
☑ None of the above

Give details of involvement, or if none please justify the absence of involvement.

4. RISKS AND ETHICAL ISSUES

RESEARCH PARTICIPANTS

A15. What is the sample group or cohort to be studied in this research?

Select all that apply:

☐ Blood
☐ Cancer
☐ Cardiovascular
☐ Congenital Disorders

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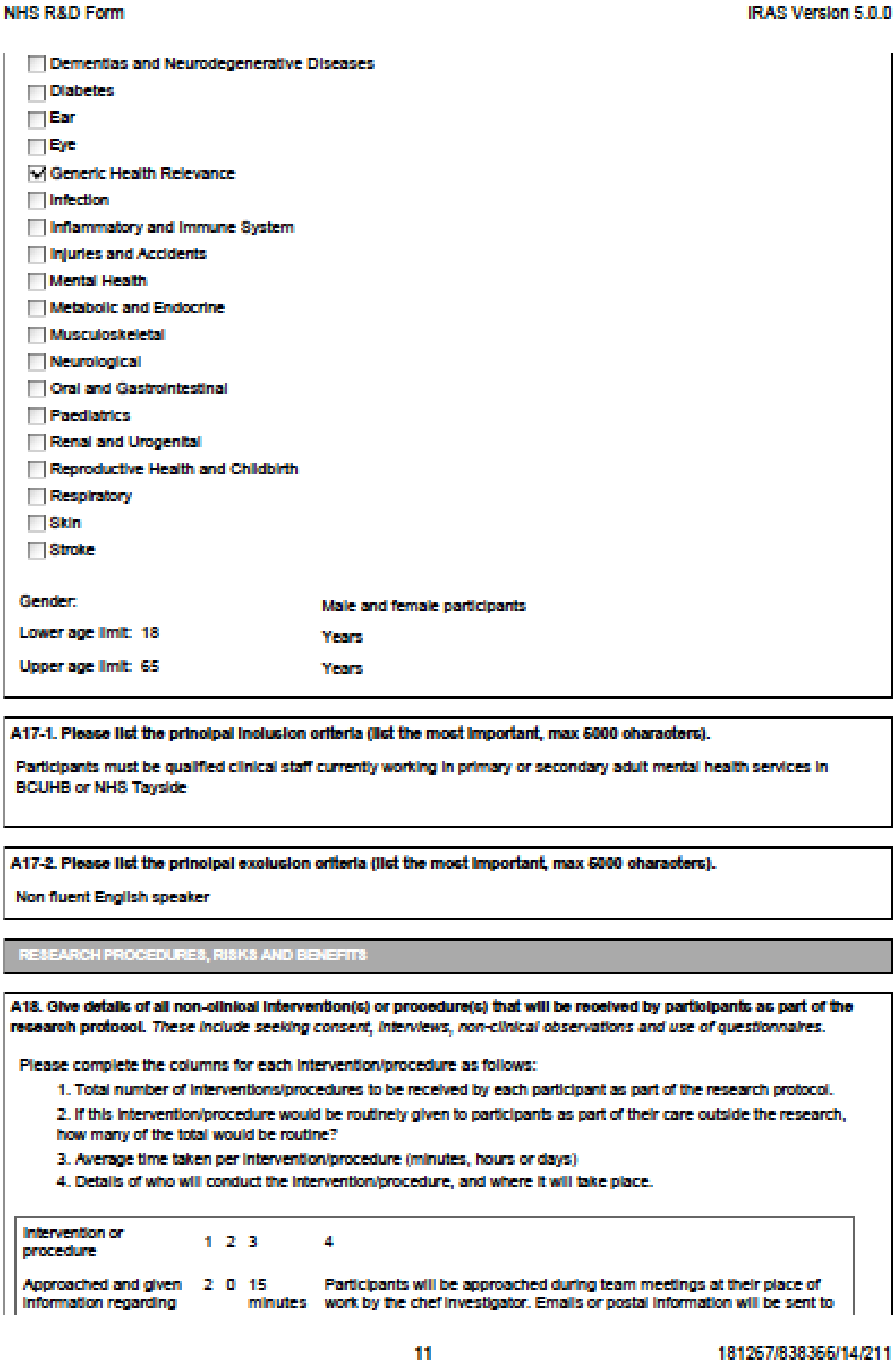


☐ Dementias and Neurodegenerative Diseases
☐ Diabetes
☐ Ear
☐ Eye
☑ Generic Health Relevance
☐ Infection
☐ Inflammatory and Immune System
☐ Injuries and Accidents
☐ Mental Health
☐ Metabolic and Endocrine
☐ Musculoskeletal
☐ Neurological
☐ Oral and Gastrointestinal
☐ Paediatrics
☐ Renal and Urogenital
☐ Reproductive Health and Childbirth
☐ Respiratory
☐ Skin
☐ Stroke

Gender:	Male and female participants
Lower age limit: 18	Years
Upper age limit: 65	Years

A17-1. Please list the principal inclusion criteria (list the most important, max 5000 characters).

Participants must be qualified clinical staff currently working in primary or secondary adult mental health services in BCUHB or NHS Tayside

A17-2. Please list the principal exclusion criteria (list the most important, max 5000 characters).

Non fluent English speaker

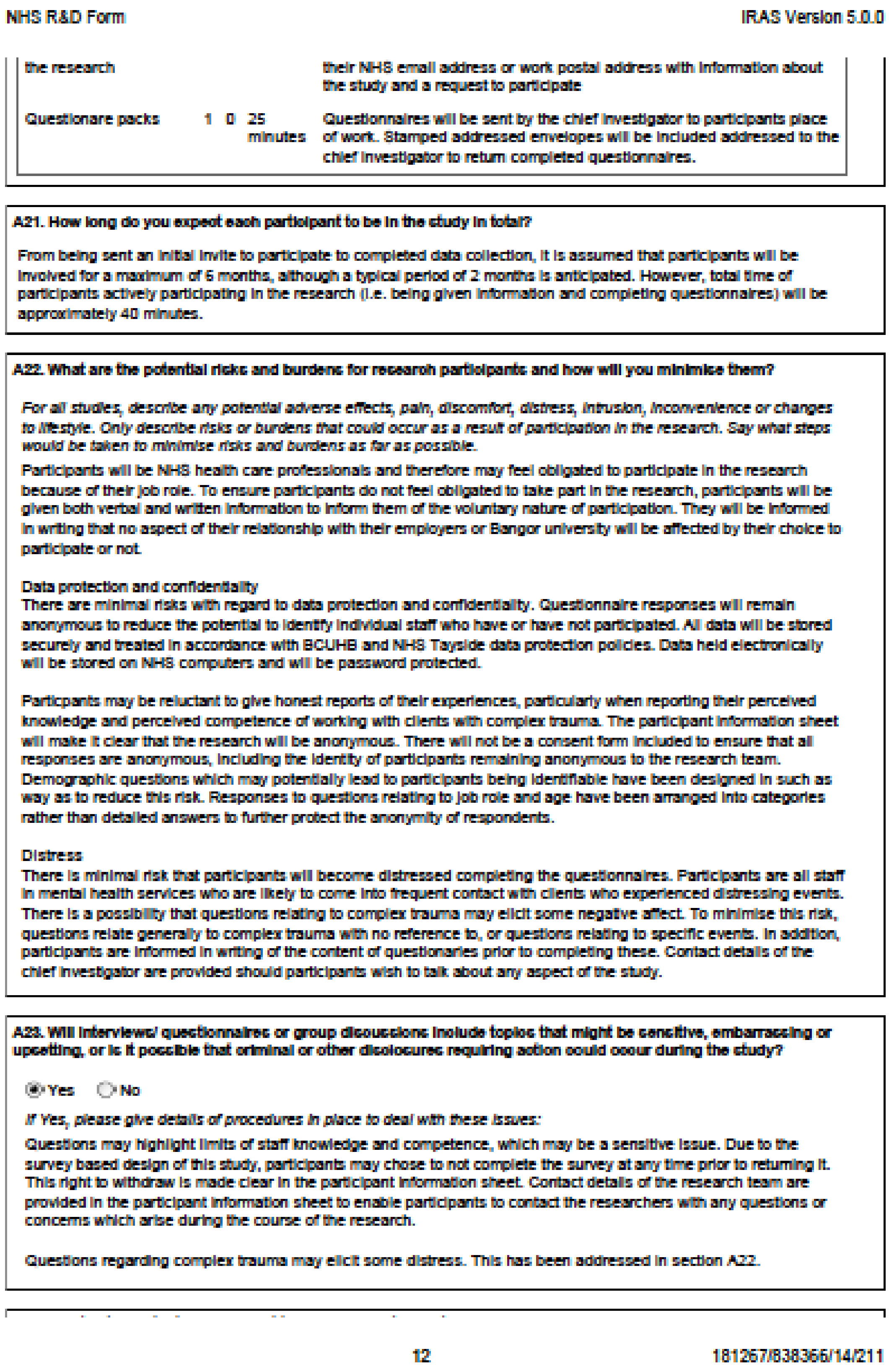
RESEARCH PROCEDURES, RISKS AND BENEFITS

A18. Give details of all non-clinical intervention(s) or procedure(s) that will be received by participants as part of the research protocol. *These include seeking consent, interviews, non-clinical observations and use of questionnaires.*

Please complete the columns for each intervention/procedure as follows:

1. Total number of interventions/procedures to be received by each participant as part of the research protocol.
2. If this intervention/procedure would be routinely given to participants as part of their care outside the research, how many of the total would be routine?
3. Average time taken per intervention/procedure (minutes, hours or days)
4. Details of who will conduct the intervention/procedure, and where it will take place.

Intervention or procedure	1	2	3	4
Approached and given information regarding	2	0	15 minutes	Participants will be approached during team meetings at their place of work by the chef investigator. Emails or postal information will be sent to



the research				their NHS email address or work postal address with information about the study and a request to participate
Questionare packs	1	0	25 minutes	Questionnaires will be sent by the chief investigator to participants place of work. Stamped addressed envelopes will be included addressed to the chief investigator to return completed questionnaires.

A21. How long do you expect each participant to be in the study in total?

From being sent an initial invite to participate to completed data collection, it is assumed that participants will be involved for a maximum of 6 months, although a typical period of 2 months is anticipated. However, total time of participants actively participating in the research (i.e. being given information and completing questionnaires) will be approximately 40 minutes.

A22. What are the potential risks and burdens for research participants and how will you minimise them?

For all studies, describe any potential adverse effects, pain, discomfort, distress, intrusion, inconvenience or changes to lifestyle. Only describe risks or burdens that could occur as a result of participation in the research. Say what steps would be taken to minimise risks and burdens as far as possible.

Participants will be NHS health care professionals and therefore may feel obligated to participate in the research because of their job role. To ensure participants do not feel obligated to take part in the research, participants will be given both verbal and written information to inform them of the voluntary nature of participation. They will be informed in writing that no aspect of their relationship with their employers or Bangor university will be affected by their choice to participate or not.

Data protection and confidentiality
There are minimal risks with regard to data protection and confidentiality. Questionnaire responses will remain anonymous to reduce the potential to identify individual staff who have or have not participated. All data will be stored securely and treated in accordance with BCUHB and NHS Tayside data protection policies. Data held electronically will be stored on NHS computers and will be password protected.

Particpants may be reluctant to give honest reports of their experiences, particularly when reporting their perceived knowledge and perceived competence of working with clients with complex trauma. The participant information sheet will make it clear that the research will be anonymous. There will not be a consent form included to ensure that all responses are anonymous, including the identity of participants remaining anonymous to the research team. Demographic questions which may potentially lead to participants being identifiable have been designed in such as way as to reduce this risk. Responses to questions relating to job role and age have been arranged into categories rather than detailed answers to further protect the anonymity of respondents.

Distress
There is minimal risk that participants will become distressed completing the questionnaires. Participants are all staff in mental health services who are likely to come into frequent contact with clients who experienced distressing events. There is a possibility that questions relating to complex trauma may elicit some negative affect. To minimise this risk, questions relate generally to complex trauma with no reference to, or questions relating to specific events. In addition, participants are informed in writing of the content of questionaries prior to completing these. Contact details of the chief investigator are provided should participants wish to talk about any aspect of the study.

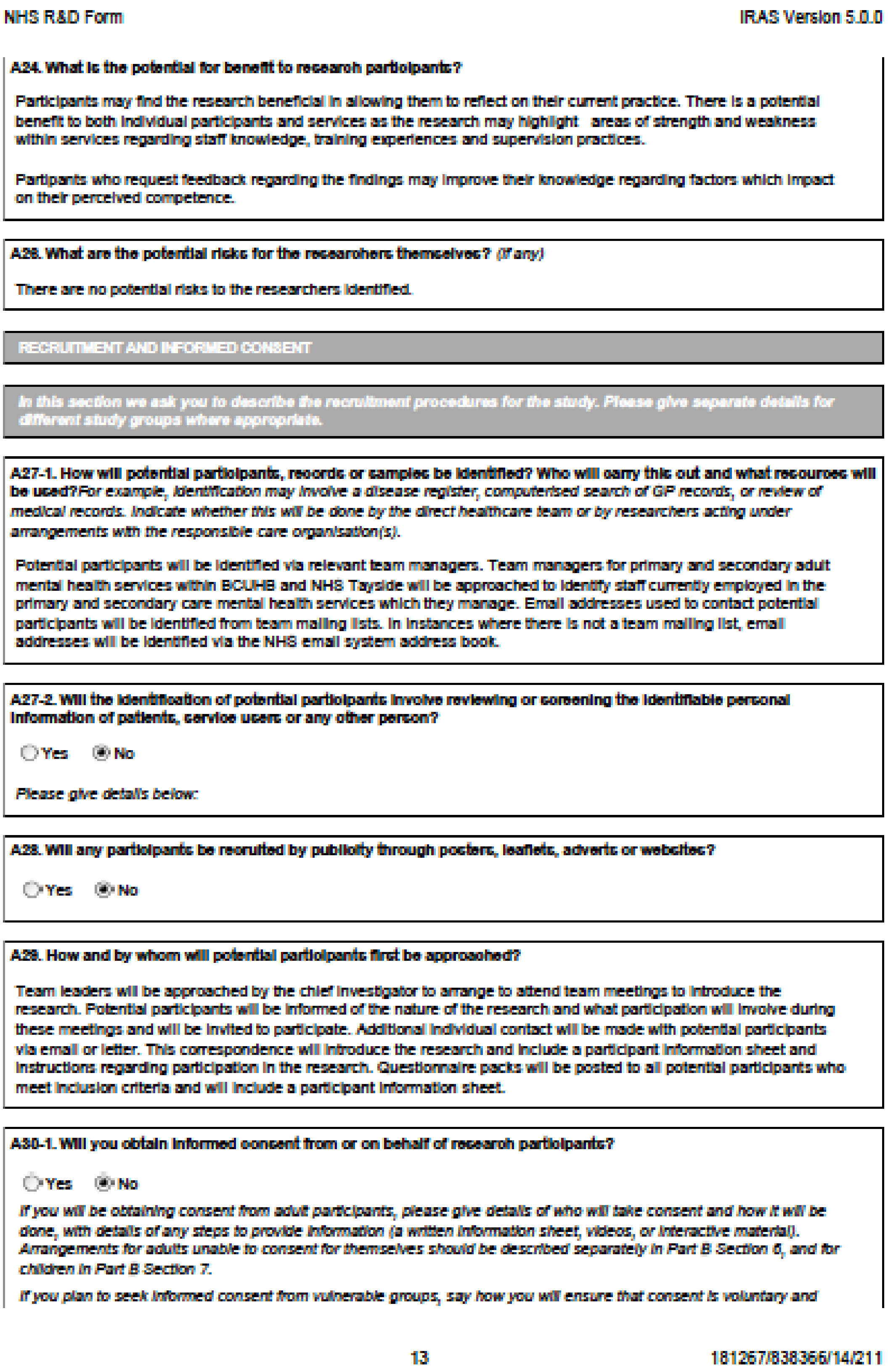
A23. Will interviews/ questionnaires or group discussions include topics that might be sensitive, embarrassing or upsetting, or is it possible that criminal or other disclosures requiring action could occur during the study?

● Yes ○ No

If Yes, please give details of procedures in place to deal with these issues:

Questions may highlight limits of staff knowledge and competence, which may be a sensitive issue. Due to the survey based design of this study, participants may chose to not complete the survey at any time prior to returning it. This right to withdraw is made clear in the participant information sheet. Contact details of the research team are provided in the participant information sheet to enable participants to contact the researchers with any questions or concerns which arise during the course of the research.

Questions regarding complex trauma may elicit some distress. This has been addressed in section A22.



A24. What is the potential for benefit to research participants?

Participants may find the research beneficial in allowing them to reflect on their current practice. There is a potential benefit to both individual participants and services as the research may highlight areas of strength and weakness within services regarding staff knowledge, training experiences and supervision practices.

Partipants who request feedback regarding the findings may improve their knowledge regarding factors which impact on their perceived competence.

A26. What are the potential risks for the researchers themselves? *(if any)*

There are no potential risks to the researchers identified.

RECRUITMENT AND INFORMED CONSENT

In this section we ask you to describe the recruitment procedures for the study. Please give separate details for different study groups where appropriate.

A27-1. How will potential participants, records or samples be identified? Who will carry this out and what resources will be used?*For example, identification may involve a disease register, computerised search of GP records, or review of medical records. Indicate whether this will be done by the direct healthcare team or by researchers acting under arrangements with the responsible care organisation(s).*

Potential participants will be identified via relevant team managers. Team managers for primary and secondary adult mental health services within BCUHB and NHS Tayside will be approached to identify staff currently employed in the primary and secondary care mental health services which they manage. Email addresses used to contact potential participants will be identified from team mailing lists. In instances where there is not a team mailing list, email addresses will be identified via the NHS email system address book.

A27-2. Will the identification of potential participants involve reviewing or screening the identifiable personal information of patients, service users or any other person?

○ Yes ● No

Please give details below:

A28. Will any participants be recruited by publicity through posters, leaflets, adverts or websites?

○ Yes ● No

A29. How and by whom will potential participants first be approached?

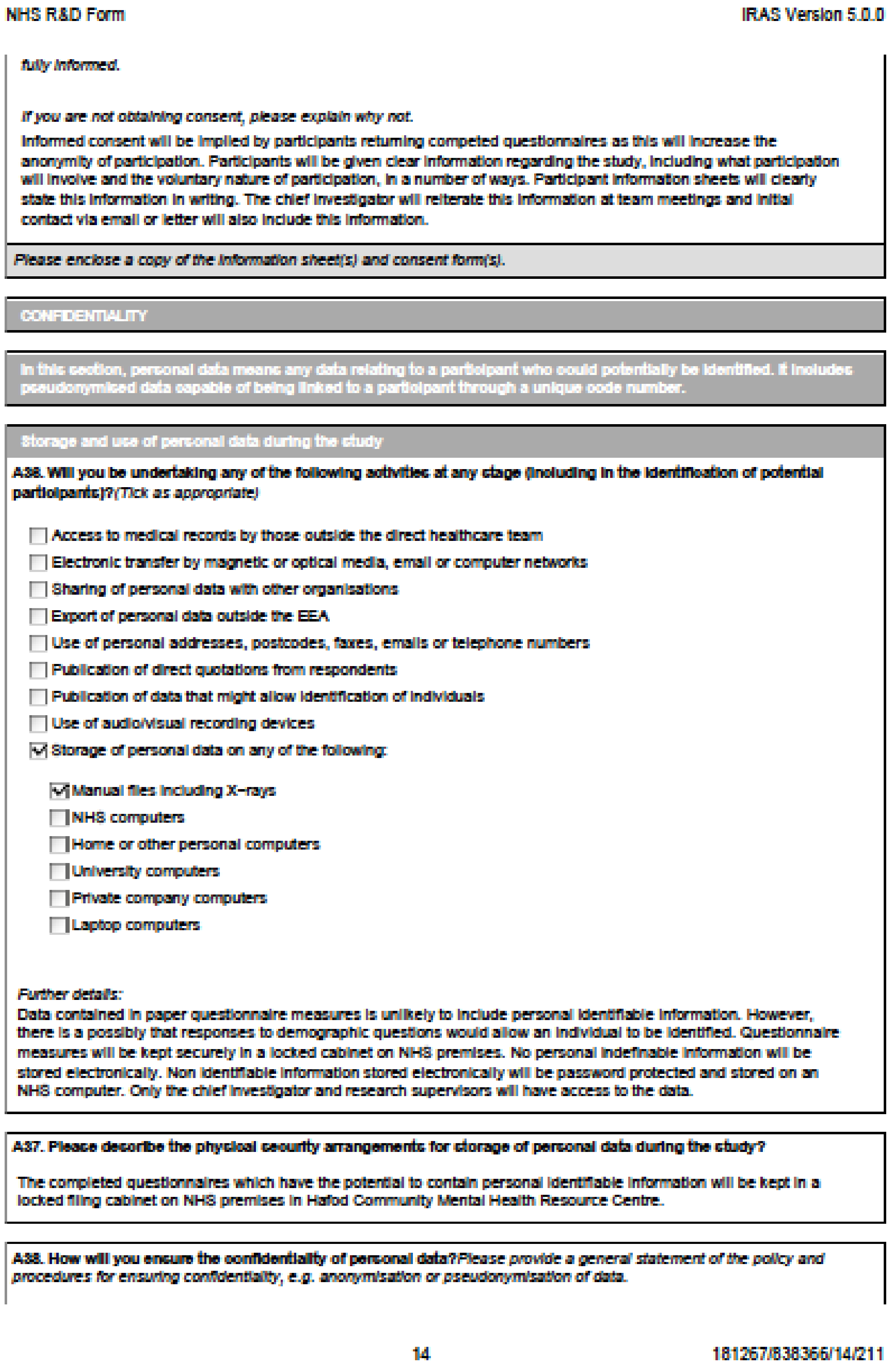
Team leaders will be approached by the chief investigator to arrange to attend team meetings to introduce the research. Potential participants will be informed of the nature of the research and what participation will involve during these meetings and will be invited to participate. Additional individual contact will be made with potential participants via email or letter. This correspondence will introduce the research and include a participant information sheet and instructions regarding participation in the research. Questionnaire packs will be posted to all potential participants who meet inclusion criteria and will include a participant information sheet.

A30-1. Will you obtain informed consent from or on behalf of research participants?

○ Yes ● No

If you will be obtaining consent from adult participants, please give details of who will take consent and how it will be done, with details of any steps to provide information (a written information sheet, videos, or interactive material). Arrangements for adults unable to consent for themselves should be described separately in Part B Section 6, and for children in Part B Section 7.

If you plan to seek informed consent from vulnerable groups, say how you will ensure that consent is voluntary and



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fully informed.

If you are not obtaining consent, please explain why not.

Informed consent will be implied by participants returning competed questionnaires as this will increase the anonymity of participation. Participants will be given clear information regarding the study, including what participation will involve and the voluntary nature of participation, in a number of ways. Participant information sheets will clearly state this information in writing. The chief investigator will reiterate this information at team meetings and initial contact via email or letter will also include this information.

Please enclose a copy of the information sheet(s) and consent form(s).

CONFIDENTIALITY

In this section, personal data means any data relating to a participant who could potentially be identified. It includes pseudonymised data capable of being linked to a participant through a unique code number.

Storage and use of personal data during the study

A36. Will you be undertaking any of the following activities at any stage (including in the identification of potential participants)?*(Tick as appropriate)*

☐ Access to medical records by those outside the direct healthcare team
☐ Electronic transfer by magnetic or optical media, email or computer networks
☐ Sharing of personal data with other organisations
☐ Export of personal data outside the EEA
☐ Use of personal addresses, postcodes, faxes, emails or telephone numbers
☐ Publication of direct quotations from respondents
☐ Publication of data that might allow identification of individuals
☐ Use of audio/visual recording devices
☑ Storage of personal data on any of the following:

  ☑ Manual files including X-rays
  ☐ NHS computers
  ☐ Home or other personal computers
  ☐ University computers
  ☐ Private company computers
  ☐ Laptop computers

Further details:
Data contained in paper questionnaire measures is unlikely to include personal identifiable information. However, there is a possibly that responses to demographic questions would allow an individual to be identified. Questionnaire measures will be kept securely in a locked cabinet on NHS premises. No personal indefinable information will be stored electronically. Non identifiable information stored electronically will be password protected and stored on an NHS computer. Only the chief investigator and research supervisors will have access to the data.

A37. Please describe the physical security arrangements for storage of personal data during the study?

The completed questionnaires which have the potential to contain personal identifiable information will be kept in a locked filing cabinet on NHS premises in Hafod Community Mental Health Resource Centre.

A38. How will you ensure the confidentiality of personal data?*Please provide a general statement of the policy and procedures for ensuring confidentiality, e.g. anonymisation or pseudonymisation of data.*

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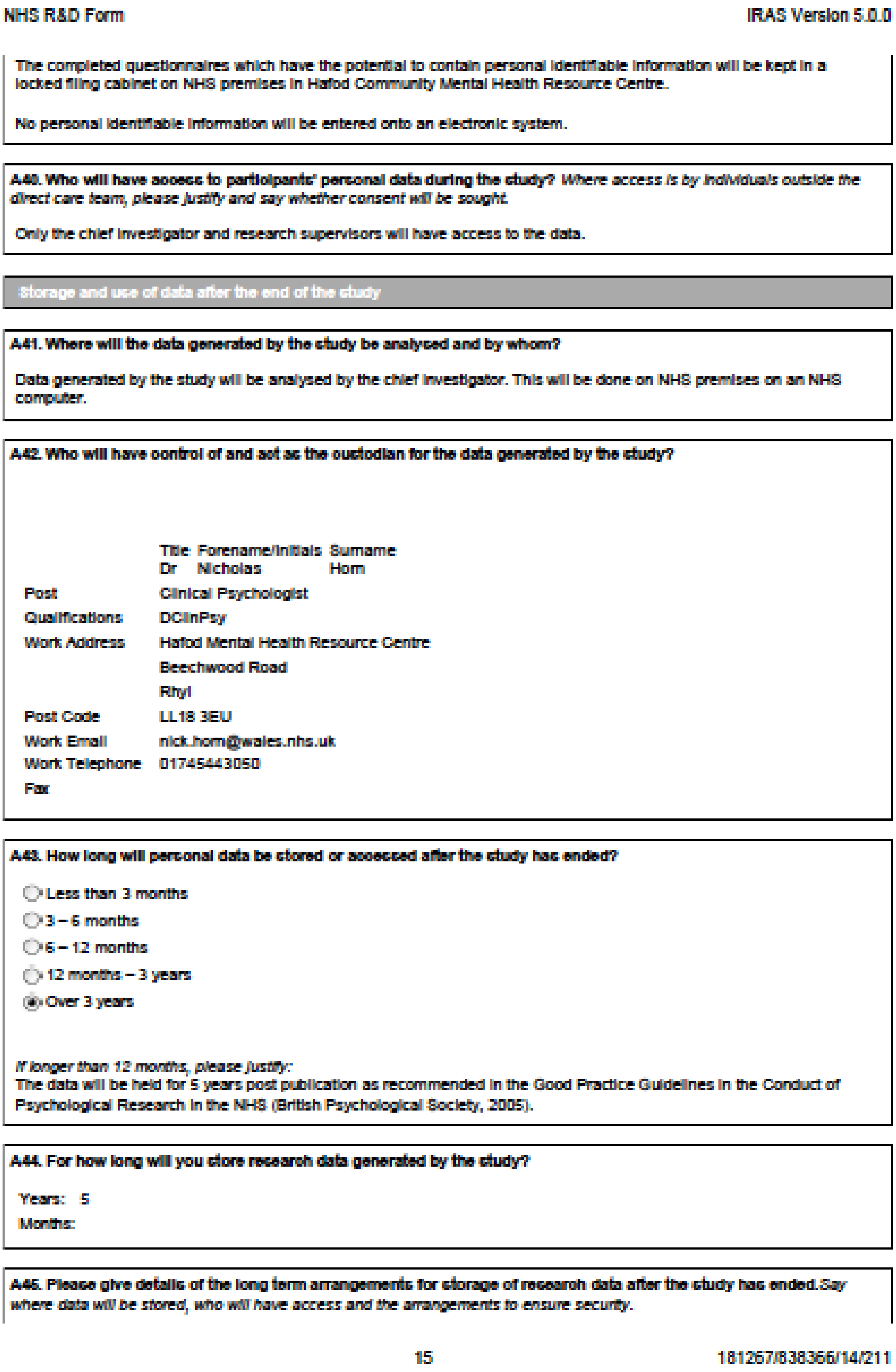


The completed questionnaires which have the potential to contain personal identifiable information will be kept in a locked filing cabinet on NHS premises in Hafod Community Mental Health Resource Centre.

No personal identifiable information will be entered onto an electronic system.

A40. Who will have access to participants' personal data during the study? *Where access is by individuals outside the direct care team, please justify and say whether consent will be sought.*

Only the chief investigator and research supervisors will have access to the data.

Storage and use of data after the end of the study

A41. Where will the data generated by the study be analysed and by whom?

Data generated by the study will be analysed by the chief investigator. This will be done on NHS premises on an NHS computer.

A42. Who will have control of and act as the custodian for the data generated by the study?

	Title	Forename/Initials	Surname
	Dr	Nicholas	Horn
Post	Clinical Psychologist		
Qualifications	DClinPsy		
Work Address	Hafod Mental Health Resource Centre Beechwood Road Rhyl		
Post Code	LL18 3EU		
Work Email	nick.horn@wales.nhs.uk		
Work Telephone	01745443050		
Fax			

A43. How long will personal data be stored or accessed after the study has ended?

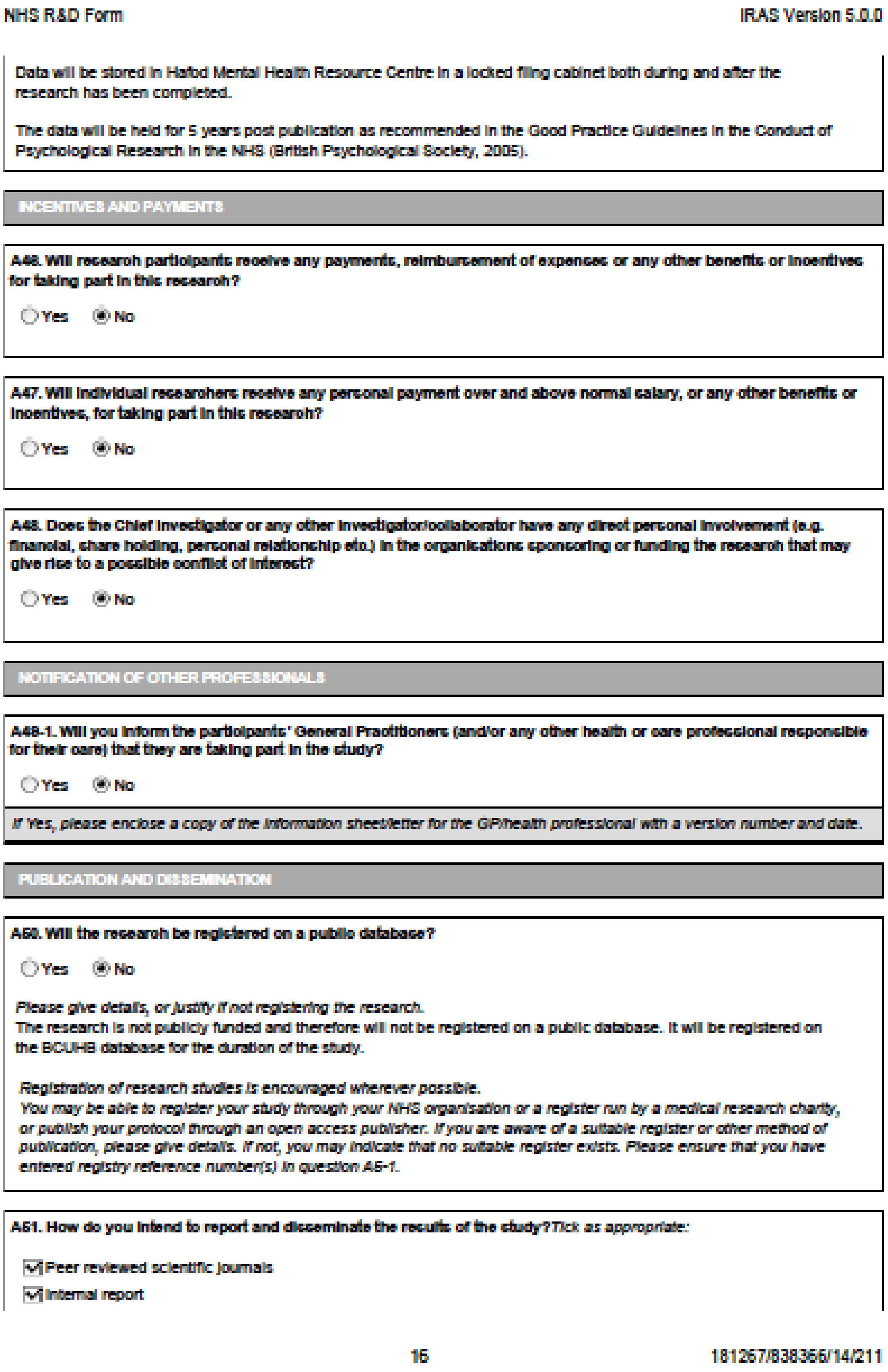
○ Less than 3 months
○ 3 – 6 months
○ 6 – 12 months
○ 12 months – 3 years
● Over 3 years

If longer than 12 months, please justify:
The data will be held for 5 years post publication as recommended in the Good Practice Guidelines in the Conduct of Psychological Research in the NHS (British Psychological Society, 2005).

A44. For how long will you store research data generated by the study?

Years: 5
Months:

A45. Please give details of the long term arrangements for storage of research data after the study has ended. *Say where data will be stored, who will have access and the arrangements to ensure security.*



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Data will be stored in Hafod Mental Health Resource Centre in a locked filing cabinet both during and after the research has been completed.

The data will be held for 5 years post publication as recommended in the Good Practice Guidelines in the Conduct of Psychological Research in the NHS (British Psychological Society, 2005).

INCENTIVES AND PAYMENTS

A46. Will research participants receive any payments, reimbursement of expenses or any other benefits or incentives for taking part in this research?

○ Yes ● No

A47. Will individual researchers receive any personal payment over and above normal salary, or any other benefits or incentives, for taking part in this research?

○ Yes ● No

A48. Does the Chief Investigator or any other investigator/collaborator have any direct personal involvement (e.g. financial, share holding, personal relationship etc.) in the organisations sponsoring or funding the research that may give rise to a possible conflict of interest?

○ Yes ● No

NOTIFICATION OF OTHER PROFESSIONALS

A49-1. Will you inform the participants' General Practitioners (and/or any other health or care professional responsible for their care) that they are taking part in the study?

○ Yes ● No

If Yes, please enclose a copy of the information sheet/letter for the GP/health professional with a version number and date.

PUBLICATION AND DISSEMINATION

A50. Will the research be registered on a public database?

○ Yes ● No

Please give details, or justify if not registering the research.
The research is not publicly funded and therefore will not be registered on a public database. It will be registered on the BCUHB database for the duration of the study.

Registration of research studies is encouraged wherever possible.
You may be able to register your study through your NHS organisation or a register run by a medical research charity, or publish your protocol through an open access publisher. If you are aware of a suitable register or other method of publication, please give details. If not, you may indicate that no suitable register exists. Please ensure that you have entered registry reference number(s) in question A5-1.

A51. How do you intend to report and disseminate the results of the study? *Tick as appropriate:*

☑ Peer reviewed scientific journals
☑ Internal report

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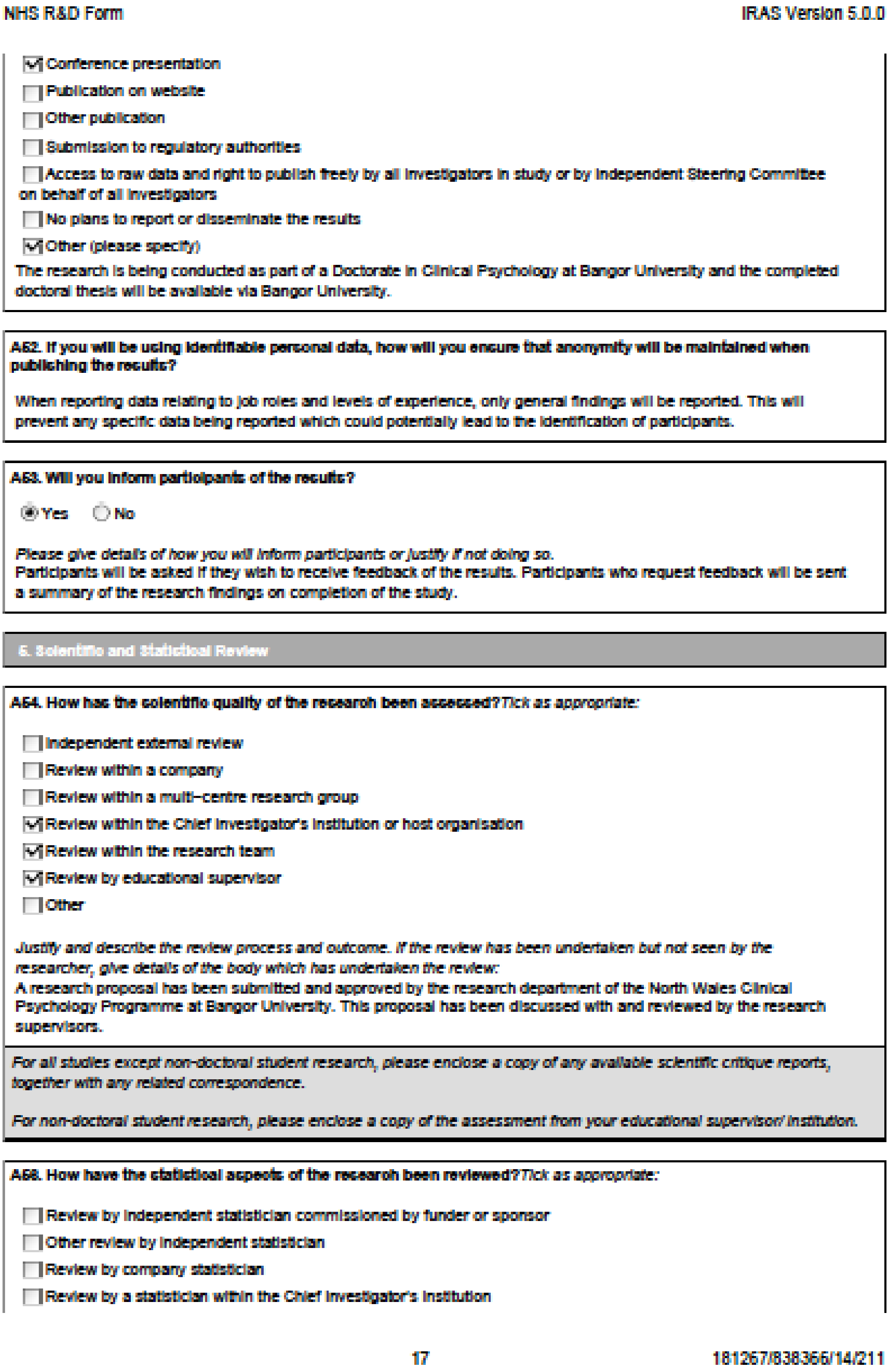


☑ Conference presentation
☐ Publication on website
☐ Other publication
☐ Submission to regulatory authorities
☐ Access to raw data and right to publish freely by all investigators in study or by Independent Steering Committee on behalf of all investigators
☐ No plans to report or disseminate the results
☑ Other (please specify)

The research is being conducted as part of a Doctorate in Clinical Psychology at Bangor University and the completed doctoral thesis will be available via Bangor University.

A62. If you will be using identifiable personal data, how will you ensure that anonymity will be maintained when publishing the results?

When reporting data relating to job roles and levels of experience, only general findings will be reported. This will prevent any specific data being reported which could potentially lead to the identification of participants.

A63. Will you inform participants of the results?

● Yes ○ No

Please give details of how you will inform participants or justify if not doing so.
Participants will be asked if they wish to receive feedback of the results. Participants who request feedback will be sent a summary of the research findings on completion of the study.

6. Scientific and Statistical Review

A64. How has the scientific quality of the research been assessed? *Tick as appropriate:*

☐ Independent external review
☐ Review within a company
☐ Review within a multi-centre research group
☑ Review within the Chief Investigator's institution or host organisation
☑ Review within the research team
☑ Review by educational supervisor
☐ Other

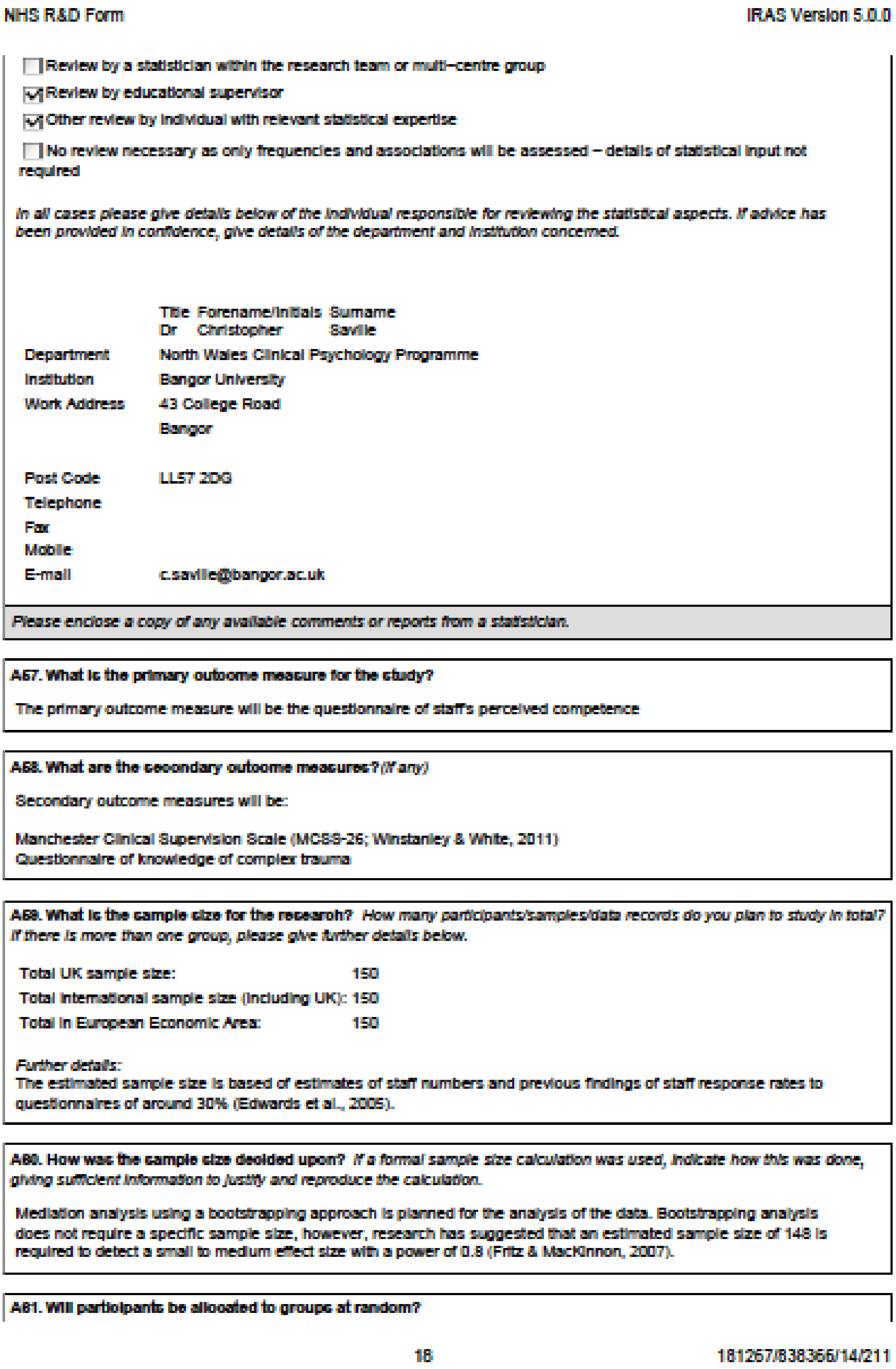
Justify and describe the review process and outcome. If the review has been undertaken but not seen by the researcher, give details of the body which has undertaken the review:
A research proposal has been submitted and approved by the research department of the North Wales Clinical Psychology Programme at Bangor University. This proposal has been discussed with and reviewed by the research supervisors.

For all studies except non-doctoral student research, please enclose a copy of any available scientific critique reports, together with any related correspondence.

For non-doctoral student research, please enclose a copy of the assessment from your educational supervisor/ institution.

A65. How have the statistical aspects of the research been reviewed? *Tick as appropriate:*

☐ Review by independent statistician commissioned by funder or sponsor
☐ Other review by independent statistician
☐ Review by company statistician
☐ Review by a statistician within the Chief Investigator's institution



☐ Review by a statistician within the research team or multi-centre group

☑ Review by educational supervisor

☑ Other review by individual with relevant statistical expertise

☐ No review necessary as only frequencies and associations will be assessed – details of statistical input not required

In all cases please give details below of the individual responsible for reviewing the statistical aspects. If advice has been provided in confidence, give details of the department and institution concerned.

	Title	Forename/Initials	Surname
	Dr	Christopher	Saville
Department	North Wales Clinical Psychology Programme		
Institution	Bangor University		
Work Address	43 College Road Bangor		
Post Code	LL57 2DG		
Telephone			
Fax			
Mobile			
E-mail	c.saville@bangor.ac.uk		

Please enclose a copy of any available comments or reports from a statistician.

A57. What is the primary outcome measure for the study?

The primary outcome measure will be the questionnaire of staff's perceived competence

A58. What are the secondary outcome measures? *(if any)*

Secondary outcome measures will be:

Manchester Clinical Supervision Scale (MCSS-26; Winstanley & White, 2011)
Questionnaire of knowledge of complex trauma

A59. What is the sample size for the research? *How many participants/samples/data records do you plan to study in total? If there is more than one group, please give further details below.*

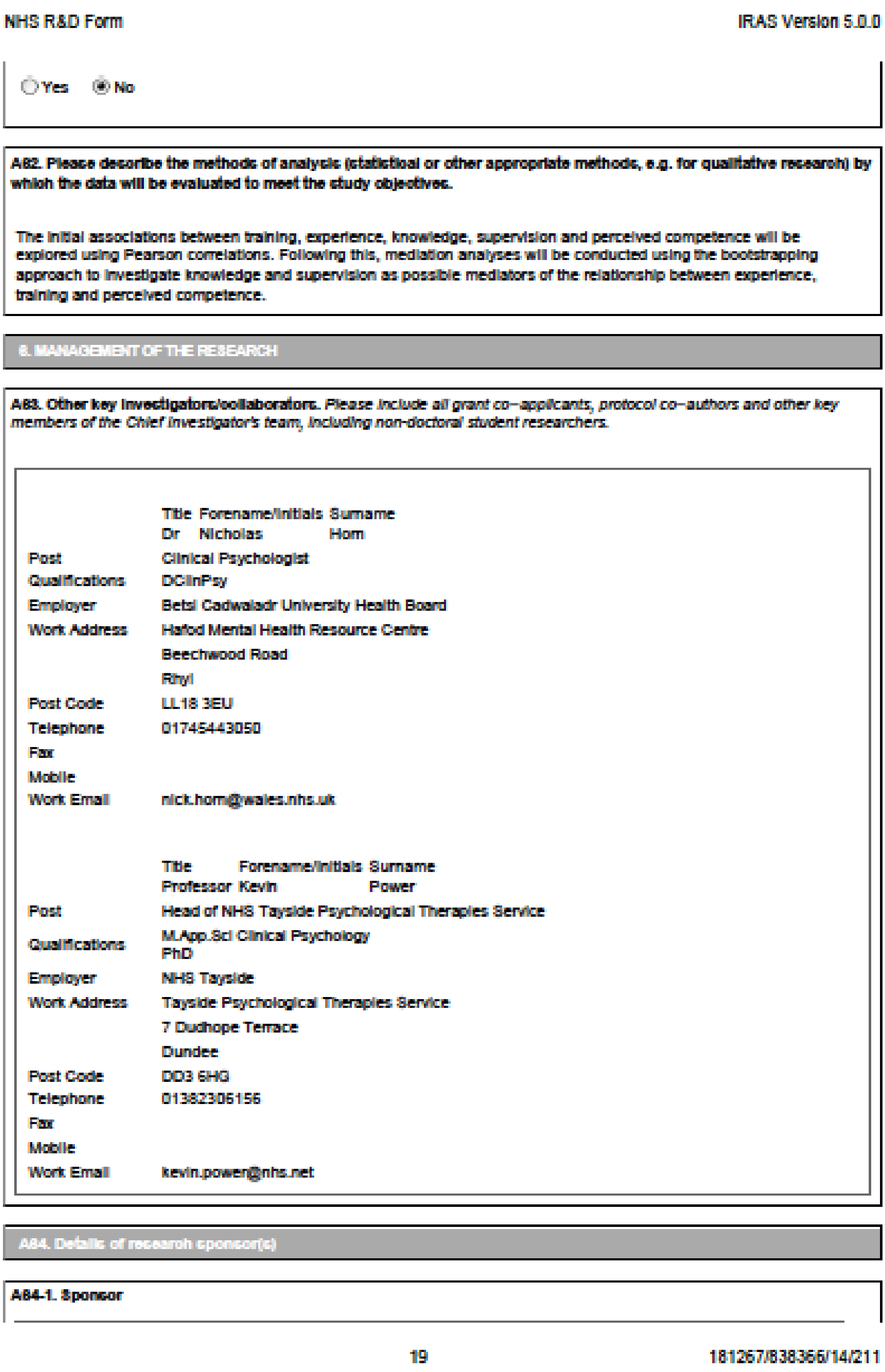
Total UK sample size:	150
Total international sample size (including UK):	150
Total in European Economic Area:	150

Further details:
The estimated sample size is based of estimates of staff numbers and previous findings of staff response rates to questionnaires of around 30% (Edwards et al., 2005).

A60. How was the sample size decided upon? *If a formal sample size calculation was used, indicate how this was done, giving sufficient information to justify and reproduce the calculation.*

Mediation analysis using a bootstrapping approach is planned for the analysis of the data. Bootstrapping analysis does not require a specific sample size, however, research has suggested that an estimated sample size of 148 is required to detect a small to medium effect size with a power of 0.8 (Fritz & MacKinnon, 2007).

A61. Will participants be allocated to groups at random?



○ Yes ● No

A82. Please describe the methods of analysis (statistical or other appropriate methods, e.g. for qualitative research) by which the data will be evaluated to meet the study objectives.

The initial associations between training, experience, knowledge, supervision and perceived competence will be explored using Pearson correlations. Following this, mediation analyses will be conducted using the bootstrapping approach to investigate knowledge and supervision as possible mediators of the relationship between experience, training and perceived competence.

6. MANAGEMENT OF THE RESEARCH

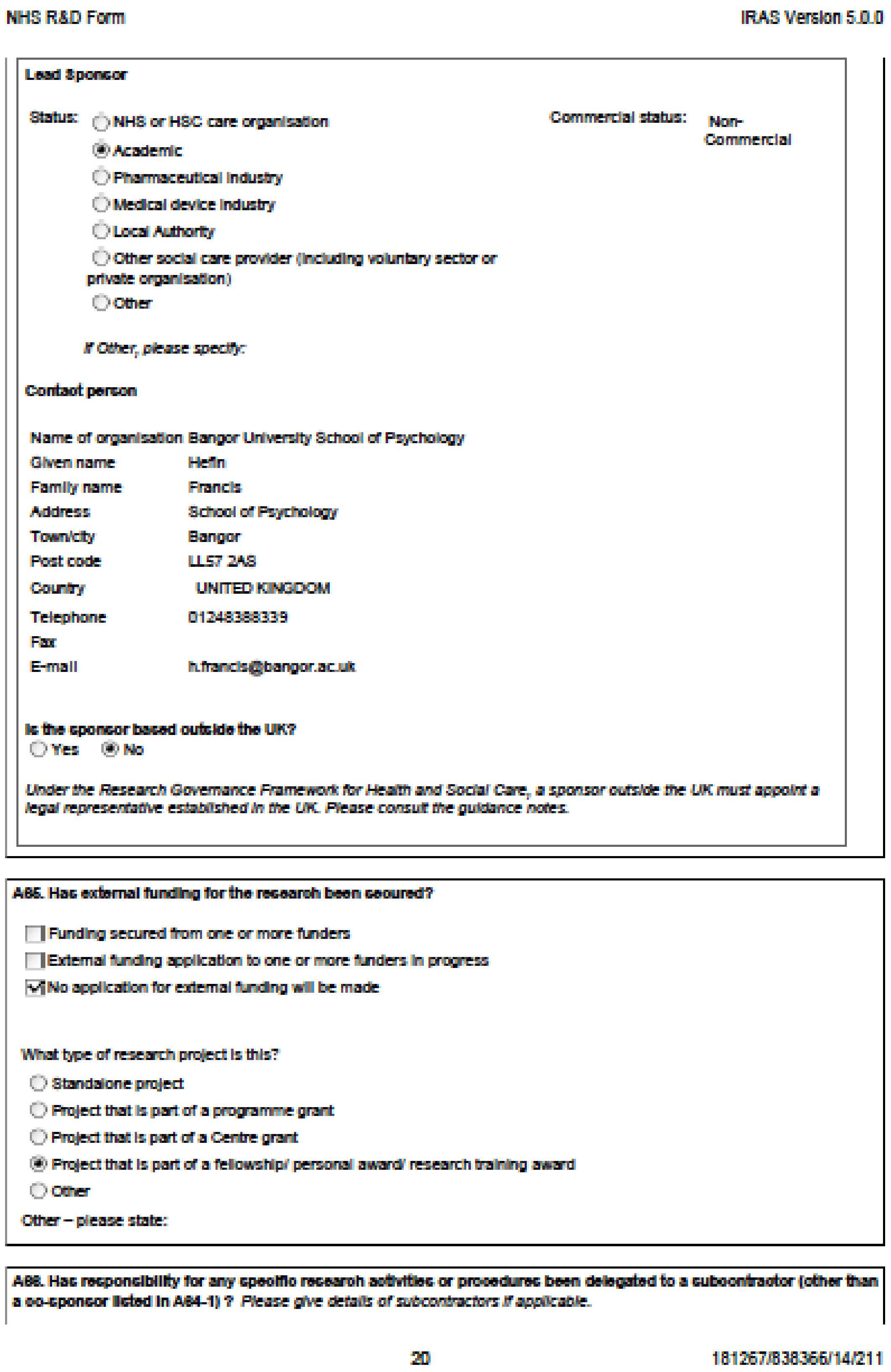
A83. Other key investigators/collaborators. *Please include all grant co-applicants, protocol co-authors and other key members of the Chief Investigator's team, including non-doctoral student researchers.*

	Title Forename/Initials Surname Dr Nicholas Horn
Post	Clinical Psychologist
Qualifications	DClinPsy
Employer	Betsi Cadwaladr University Health Board
Work Address	Hafod Mental Health Resource Centre Beechwood Road Rhyl
Post Code	LL18 3EU
Telephone	01745443050
Fax	
Mobile	
Work Email	nick.horn@wales.nhs.uk

	Title Forename/Initials Surname Professor Kevin Power
Post	Head of NHS Tayside Psychological Therapies Service
Qualifications	M.App.Sci Clinical Psychology PhD
Employer	NHS Tayside
Work Address	Tayside Psychological Therapies Service 7 Dudhope Terrace Dundee
Post Code	DD3 6HG
Telephone	01382306156
Fax	
Mobile	
Work Email	kevin.power@nhs.net

A84. Details of research sponsor(s)

A84-1. Sponsor



Lead Sponsor

Status:
○ NHS or HSC care organisation
● Academic
○ Pharmaceutical industry
○ Medical device industry
○ Local Authority
○ Other social care provider (including voluntary sector or private organisation)
○ Other

Commercial status: Non-Commercial

If Other, please specify:

Contact person

Name of organisation	Bangor University School of Psychology
Given name	Hefin
Family name	Francis
Address	School of Psychology
Town/city	Bangor
Post code	LL57 2AS
Country	UNITED KINGDOM
Telephone	01248388339
Fax	
E-mail	h.francis@bangor.ac.uk

Is the sponsor based outside the UK?
○ Yes ● No

Under the Research Governance Framework for Health and Social Care, a sponsor outside the UK must appoint a legal representative established in the UK. Please consult the guidance notes.

A65. Has external funding for the research been secured?

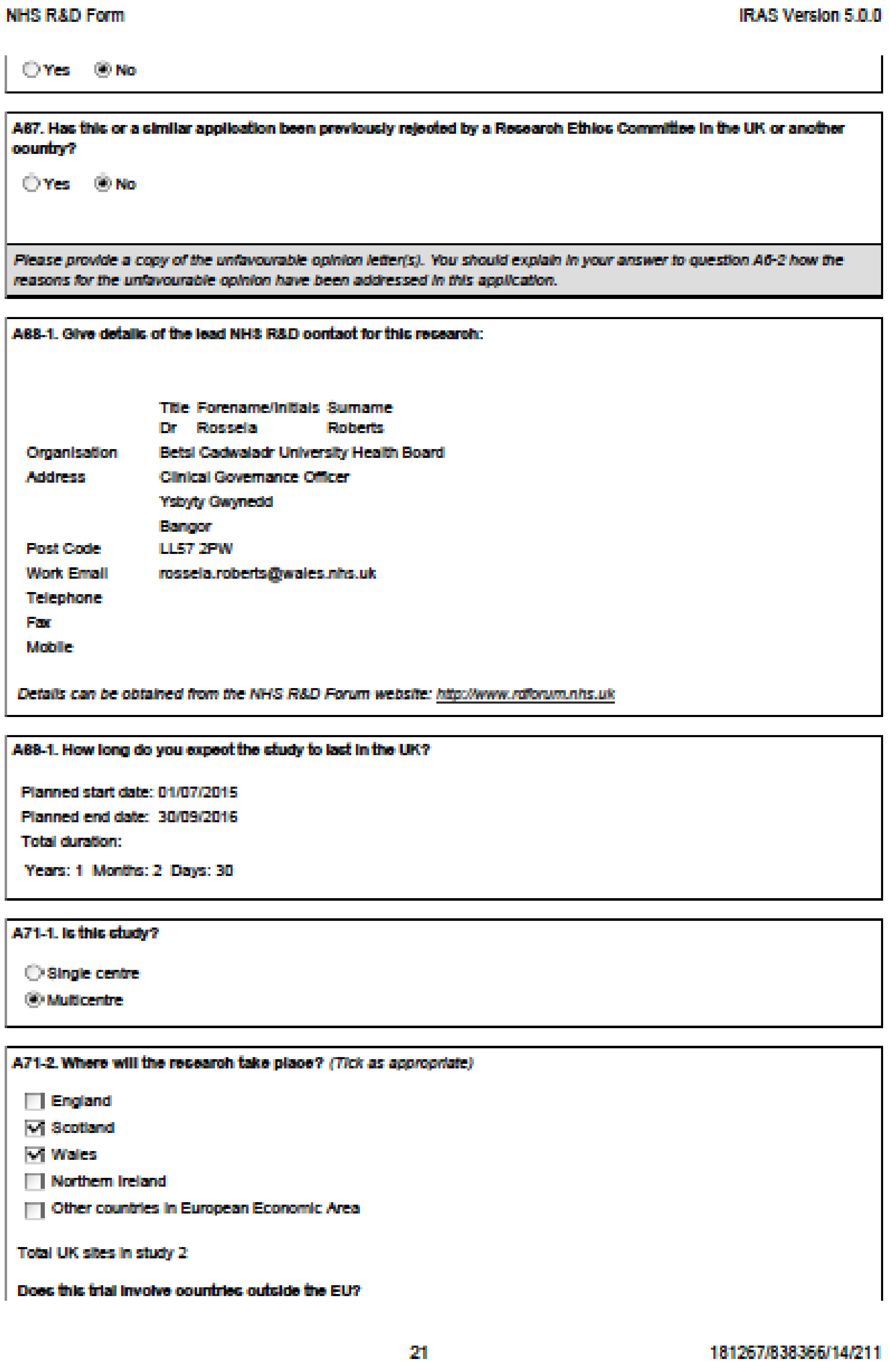
☐ Funding secured from one or more funders
☐ External funding application to one or more funders in progress
☑ No application for external funding will be made

What type of research project is this?

○ Standalone project
○ Project that is part of a programme grant
○ Project that is part of a Centre grant
● Project that is part of a fellowship/ personal award/ research training award
○ Other

Other – please state:

A66. Has responsibility for any specific research activities or procedures been delegated to a subcontractor (other than a co-sponsor listed in A64-1) ? *Please give details of subcontractors if applicable.*



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○ Yes ● No

A67. Has this or a similar application been previously rejected by a Research Ethics Committee in the UK or another country?

○ Yes ● No

Please provide a copy of the unfavourable opinion letter(s). You should explain in your answer to question A6-2 how the reasons for the unfavourable opinion have been addressed in this application.

A68-1. Give details of the lead NHS R&D contact for this research:

	Title	Forename/Initials	Surname
	Dr	Rossela	Roberts
Organisation	Betsi Cadwaladr University Health Board		
Address	Clinical Governance Officer Ysbyty Gwynedd Bangor		
Post Code	LL57 2PW		
Work Email	rossela.roberts@wales.nhs.uk		
Telephone			
Fax			
Mobile			

Details can be obtained from the NHS R&D Forum website: http://www.rdforum.nhs.uk

A69-1. How long do you expect the study to last in the UK?

Planned start date: 01/07/2015
Planned end date: 30/09/2016
Total duration:
Years: 1 Months: 2 Days: 30

A71-1. Is this study?

○ Single centre
● Multicentre

A71-2. Where will the research take place? *(Tick as appropriate)*

- ☐ England
- ☑ Scotland
- ☑ Wales
- ☐ Northern Ireland
- ☐ Other countries in European Economic Area

Total UK sites in study 2

Does this trial involve countries outside the EU?

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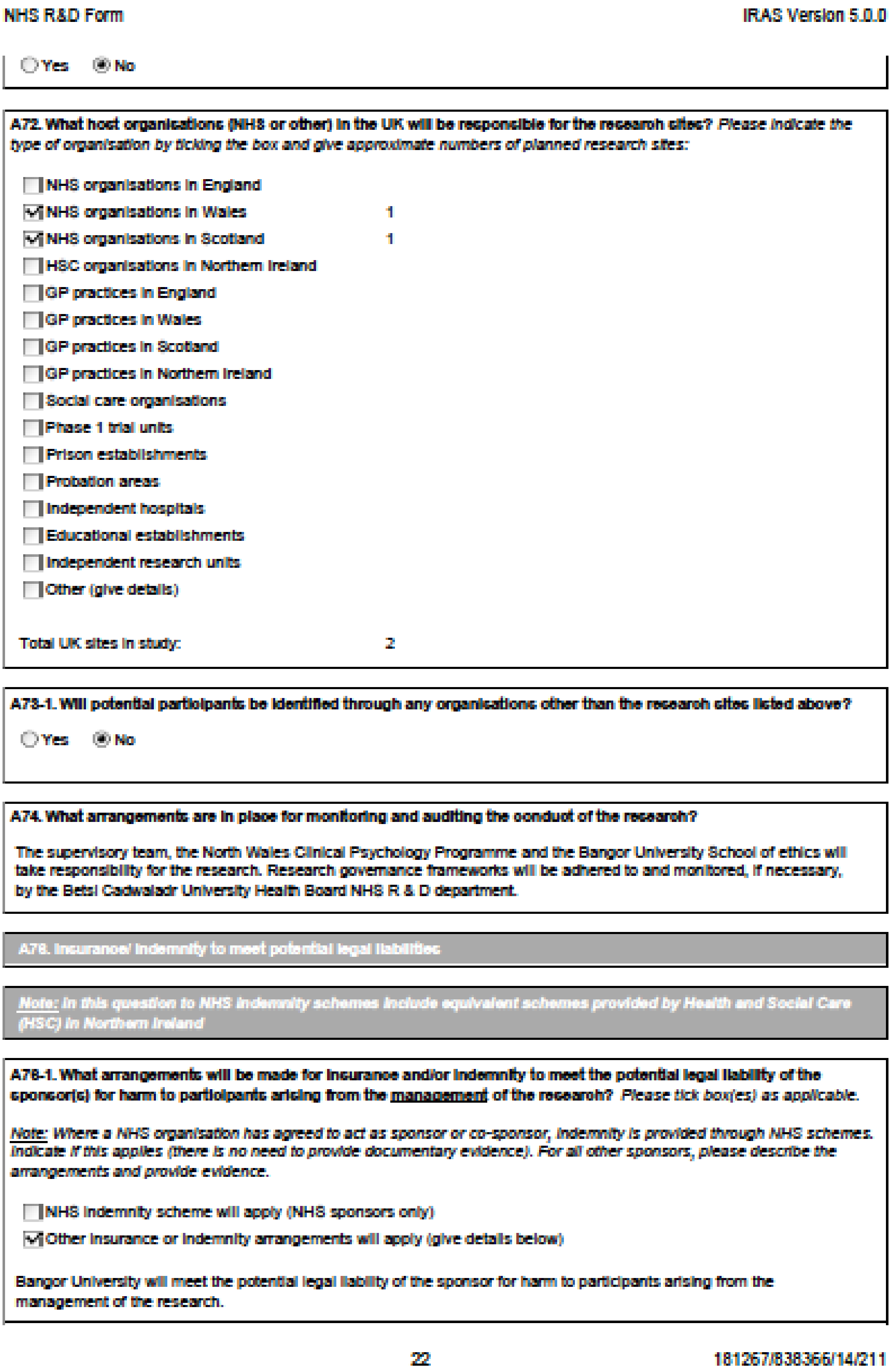


○ Yes ● No

A72. What host organisations (NHS or other) in the UK will be responsible for the research sites? *Please indicate the type of organisation by ticking the box and give approximate numbers of planned research sites:*

☐ NHS organisations in England	
☑ NHS organisations in Wales	1
☑ NHS organisations in Scotland	1
☐ HSC organisations in Northern Ireland	
☐ GP practices in England	
☐ GP practices in Wales	
☐ GP practices in Scotland	
☐ GP practices in Northern Ireland	
☐ Social care organisations	
☐ Phase 1 trial units	
☐ Prison establishments	
☐ Probation areas	
☐ Independent hospitals	
☐ Educational establishments	
☐ Independent research units	
☐ Other (give details)	
Total UK sites in study:	2

A73-1. Will potential participants be identified through any organisations other than the research sites listed above?

○ Yes ● No

A74. What arrangements are in place for monitoring and auditing the conduct of the research?

The supervisory team, the North Wales Clinical Psychology Programme and the Bangor University School of ethics will take responsibility for the research. Research governance frameworks will be adhered to and monitored, if necessary, by the Betsi Cadwaladr University Health Board NHS R & D department.

A76. Insurance/ indemnity to meet potential legal liabilities

***Note:** In this question to NHS indemnity schemes include equivalent schemes provided by Health and Social Care (HSC) in Northern Ireland*

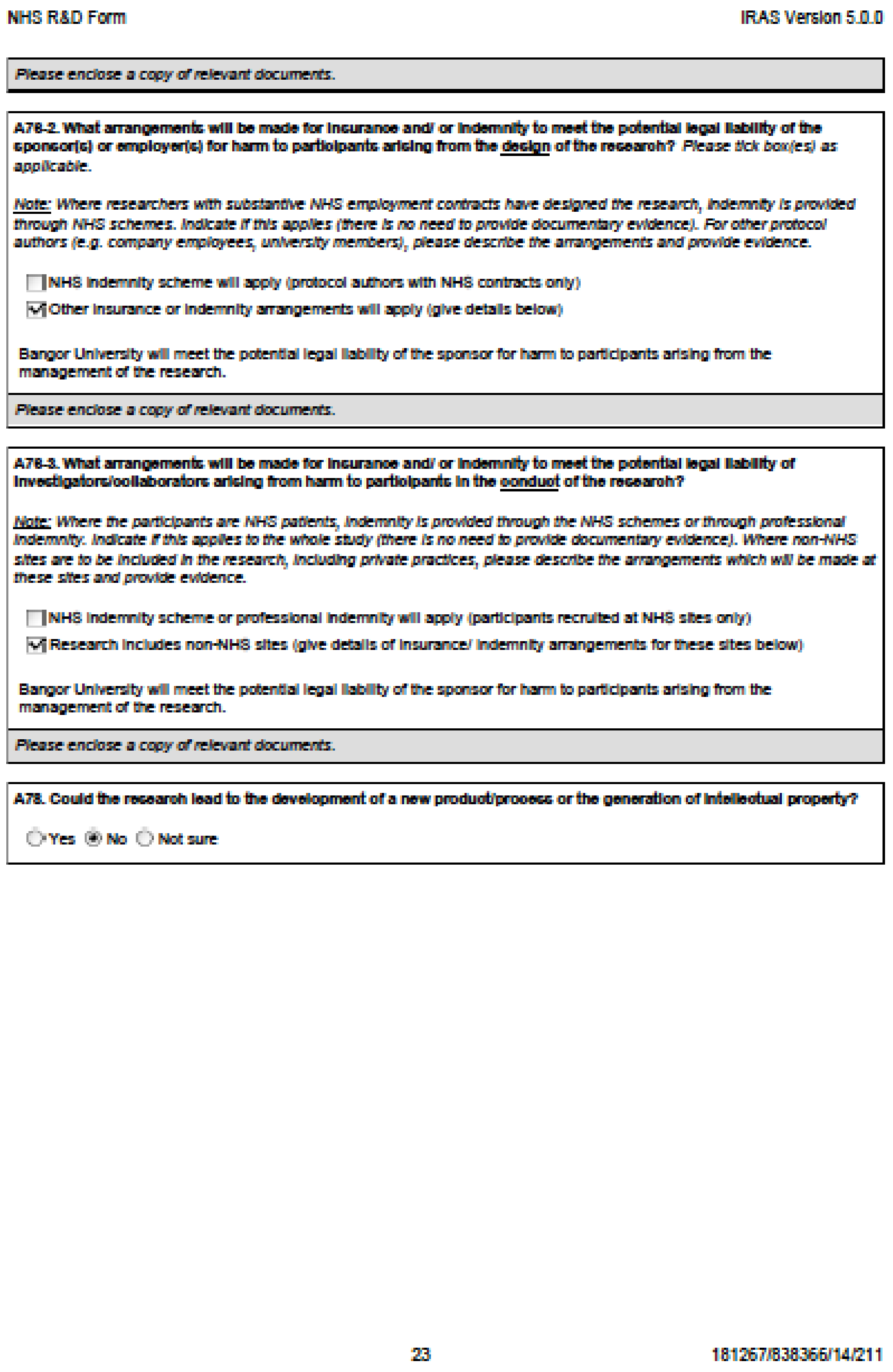
A76-1. What arrangements will be made for insurance and/or indemnity to meet the potential legal liability of the sponsor(s) for harm to participants arising from the management of the research? *Please tick box(es) as applicable.*

Note: Where a NHS organisation has agreed to act as sponsor or co-sponsor, indemnity is provided through NHS schemes. Indicate if this applies (there is no need to provide documentary evidence). For all other sponsors, please describe the arrangements and provide evidence.

☐ NHS indemnity scheme will apply (NHS sponsors only)

☑ Other insurance or indemnity arrangements will apply (give details below)

Bangor University will meet the potential legal liability of the sponsor for harm to participants arising from the management of the research.



Please enclose a copy of relevant documents.

A76-2. What arrangements will be made for insurance and/ or indemnity to meet the potential legal liability of the sponsor(s) or employer(s) for harm to participants arising from the design of the research? *Please tick box(es) as applicable.*

Note: Where researchers with substantive NHS employment contracts have designed the research, indemnity is provided through NHS schemes. Indicate if this applies (there is no need to provide documentary evidence). For other protocol authors (e.g. company employees, university members), please describe the arrangements and provide evidence.

☐ NHS indemnity scheme will apply (protocol authors with NHS contracts only)

☑ Other insurance or indemnity arrangements will apply (give details below)

Bangor University will meet the potential legal liability of the sponsor for harm to participants arising from the management of the research.

Please enclose a copy of relevant documents.

A76-3. What arrangements will be made for insurance and/ or indemnity to meet the potential legal liability of investigators/collaborators arising from harm to participants in the conduct of the research?

Note: Where the participants are NHS patients, indemnity is provided through the NHS schemes or through professional indemnity. Indicate if this applies to the whole study (there is no need to provide documentary evidence). Where non-NHS sites are to be included in the research, including private practices, please describe the arrangements which will be made at these sites and provide evidence.

☐ NHS indemnity scheme or professional indemnity will apply (participants recruited at NHS sites only)

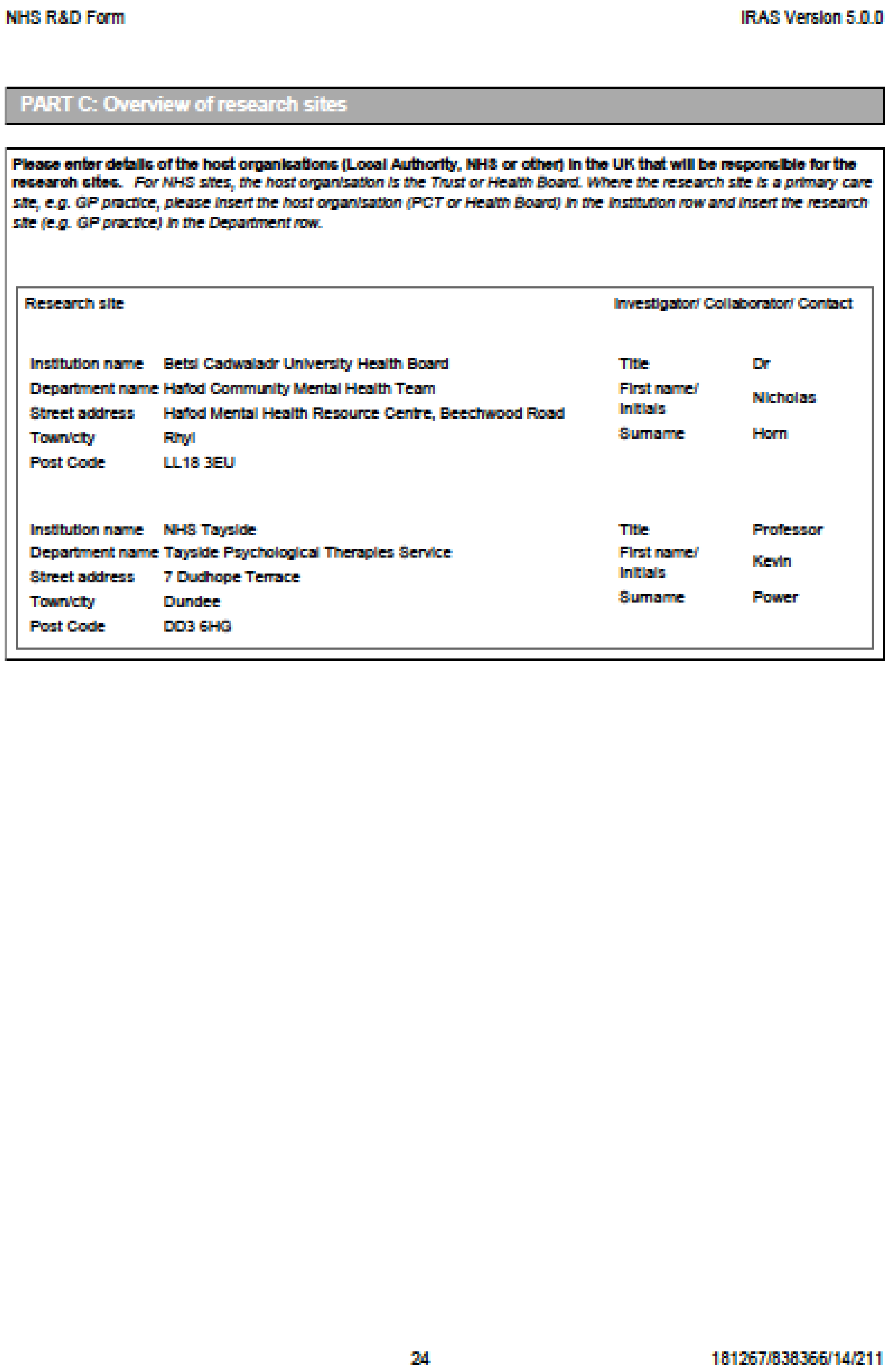
☑ Research includes non-NHS sites (give details of insurance/ indemnity arrangements for these sites below)

Bangor University will meet the potential legal liability of the sponsor for harm to participants arising from the management of the research.

Please enclose a copy of relevant documents.

A78. Could the research lead to the development of a new product/process or the generation of intellectual property?

○ Yes ● No ○ Not sure



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PART C: Overview of research sites

Please enter details of the host organisations (Local Authority, NHS or other) in the UK that will be responsible for the research sites. *For NHS sites, the host organisation is the Trust or Health Board. Where the research site is a primary care site, e.g. GP practice, please insert the host organisation (PCT or Health Board) in the Institution row and insert the research site (e.g. GP practice) in the Department row.*

Research site		Investigator/ Collaborator/ Contact	
Institution name	Betsi Cadwaladr University Health Board	Title	Dr
Department name	Hafod Community Mental Health Team	First name/ Initials	Nicholas
Street address	Hafod Mental Health Resource Centre, Beechwood Road	Surname	Horn
Town/city	Rhyl		
Post Code	LL18 3EU		
Institution name	NHS Tayside	Title	Professor
Department name	Tayside Psychological Therapies Service	First name/ Initials	Kevin
Street address	7 Dudhope Terrace	Surname	Power
Town/city	Dundee		
Post Code	DD3 6HG		

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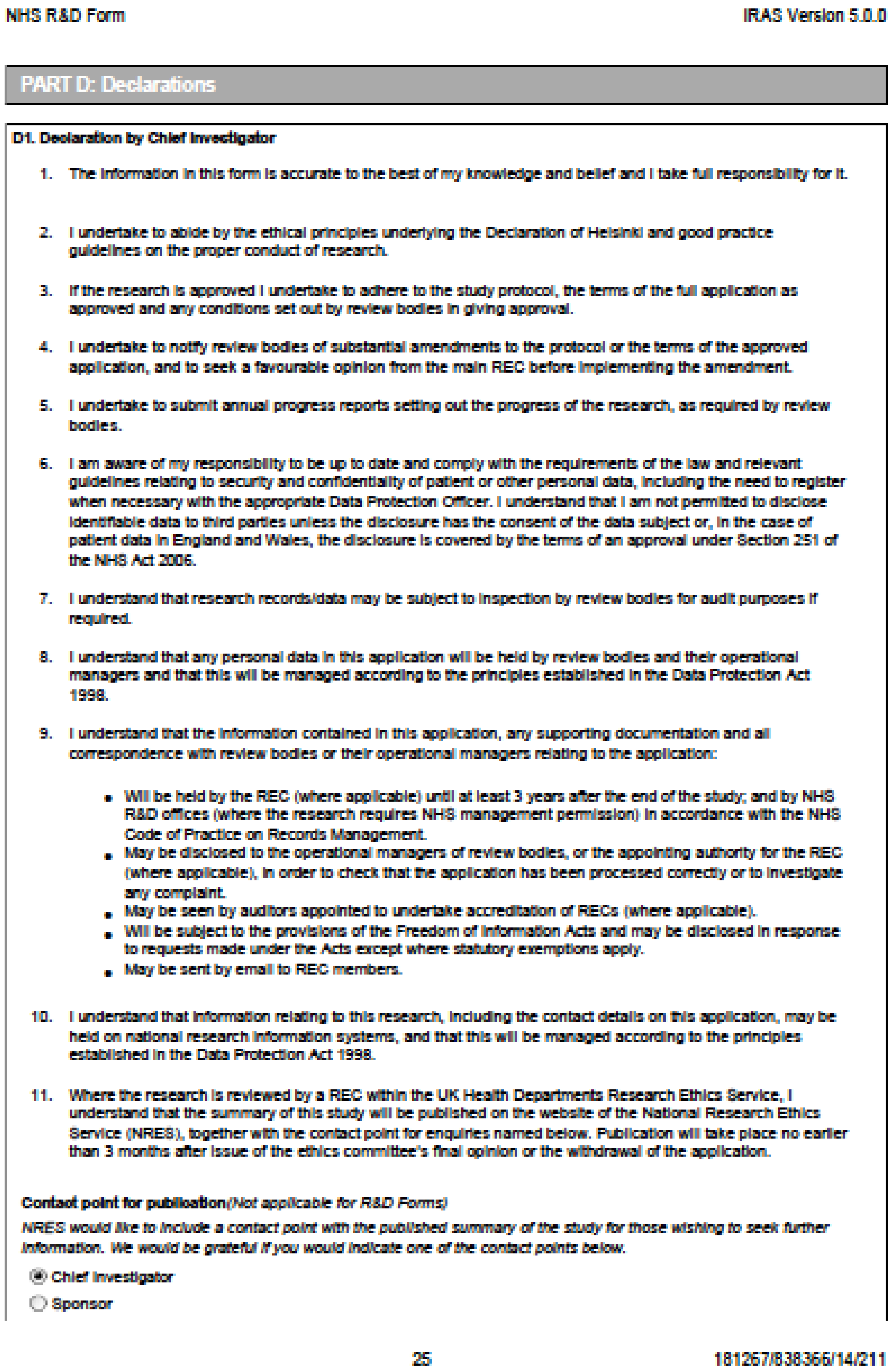


PART D: Declarations

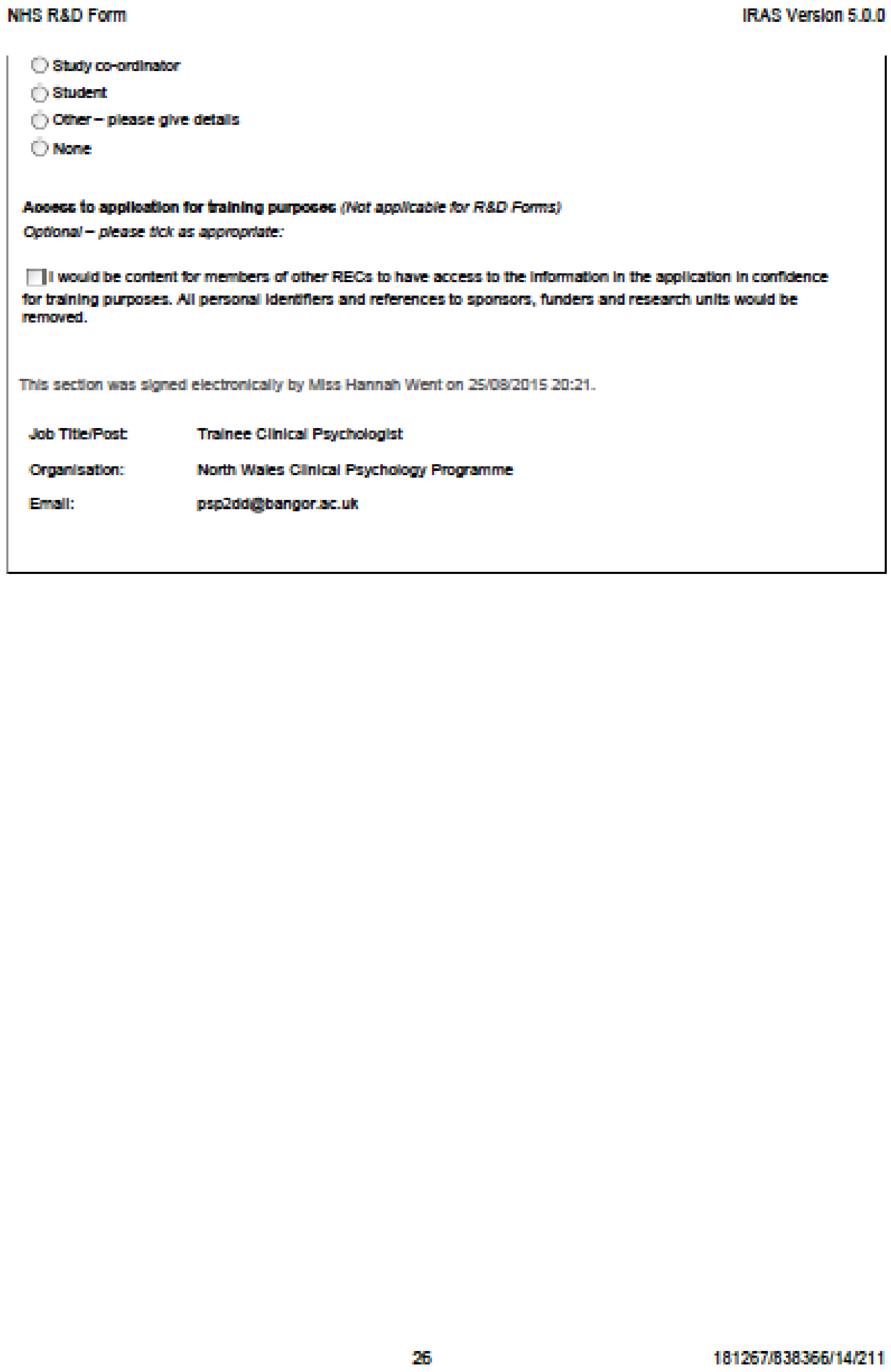
D1. Declaration by Chief Investigator

1. The information in this form is accurate to the best of my knowledge and belief and I take full responsibility for it.
2. I undertake to abide by the ethical principles underlying the Declaration of Helsinki and good practice guidelines on the proper conduct of research.
3. If the research is approved I undertake to adhere to the study protocol, the terms of the full application as approved and any conditions set out by review bodies in giving approval.
4. I undertake to notify review bodies of substantial amendments to the protocol or the terms of the approved application, and to seek a favourable opinion from the main REC before implementing the amendment.
5. I undertake to submit annual progress reports setting out the progress of the research, as required by review bodies.
6. I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to security and confidentiality of patient or other personal data, including the need to register when necessary with the appropriate Data Protection Officer. I understand that I am not permitted to disclose identifiable data to third parties unless the disclosure has the consent of the data subject or, in the case of patient data in England and Wales, the disclosure is covered by the terms of an approval under Section 251 of the NHS Act 2006.
7. I understand that research records/data may be subject to inspection by review bodies for audit purposes if required.
8. I understand that any personal data in this application will be held by review bodies and their operational managers and that this will be managed according to the principles established in the Data Protection Act 1998.
9. I understand that the information contained in this application, any supporting documentation and all correspondence with review bodies or their operational managers relating to the application:
    - Will be held by the REC (where applicable) until at least 3 years after the end of the study; and by NHS R&D offices (where the research requires NHS management permission) in accordance with the NHS Code of Practice on Records Management.
    - May be disclosed to the operational managers of review bodies, or the appointing authority for the REC (where applicable), in order to check that the application has been processed correctly or to investigate any complaint.
    - May be seen by auditors appointed to undertake accreditation of RECs (where applicable).
    - Will be subject to the provisions of the Freedom of Information Acts and may be disclosed in response to requests made under the Acts except where statutory exemptions apply.
    - May be sent by email to REC members.
10. I understand that information relating to this research, including the contact details on this application, may be held on national research information systems, and that this will be managed according to the principles established in the Data Protection Act 1998.
11. Where the research is reviewed by a REC within the UK Health Departments Research Ethics Service, I understand that the summary of this study will be published on the website of the National Research Ethics Service (NRES), together with the contact point for enquiries named below. Publication will take place no earlier than 3 months after issue of the ethics committee's final opinion or the withdrawal of the application.

Contact point for publication*(Not applicable for R&D Forms)*

NRES would like to include a contact point with the published summary of the study for those wishing to seek further information. We would be grateful if you would indicate one of the contact points below.

● Chief Investigator
○ Sponsor



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○ Study co-ordinator
○ Student
○ Other – please give details
○ None

Access to application for training purposes *(Not applicable for R&D Forms)*
Optional – please tick as appropriate:

☐ I would be content for members of other RECs to have access to the information in the application in confidence for training purposes. All personal identifiers and references to sponsors, funders and research units would be removed.

This section was signed electronically by Miss Hannah Went on 25/08/2015 20:21.

Job Title/Post:	Trainee Clinical Psychologist
Organisation:	North Wales Clinical Psychology Programme
Email:	psp2dd@bangor.ac.uk

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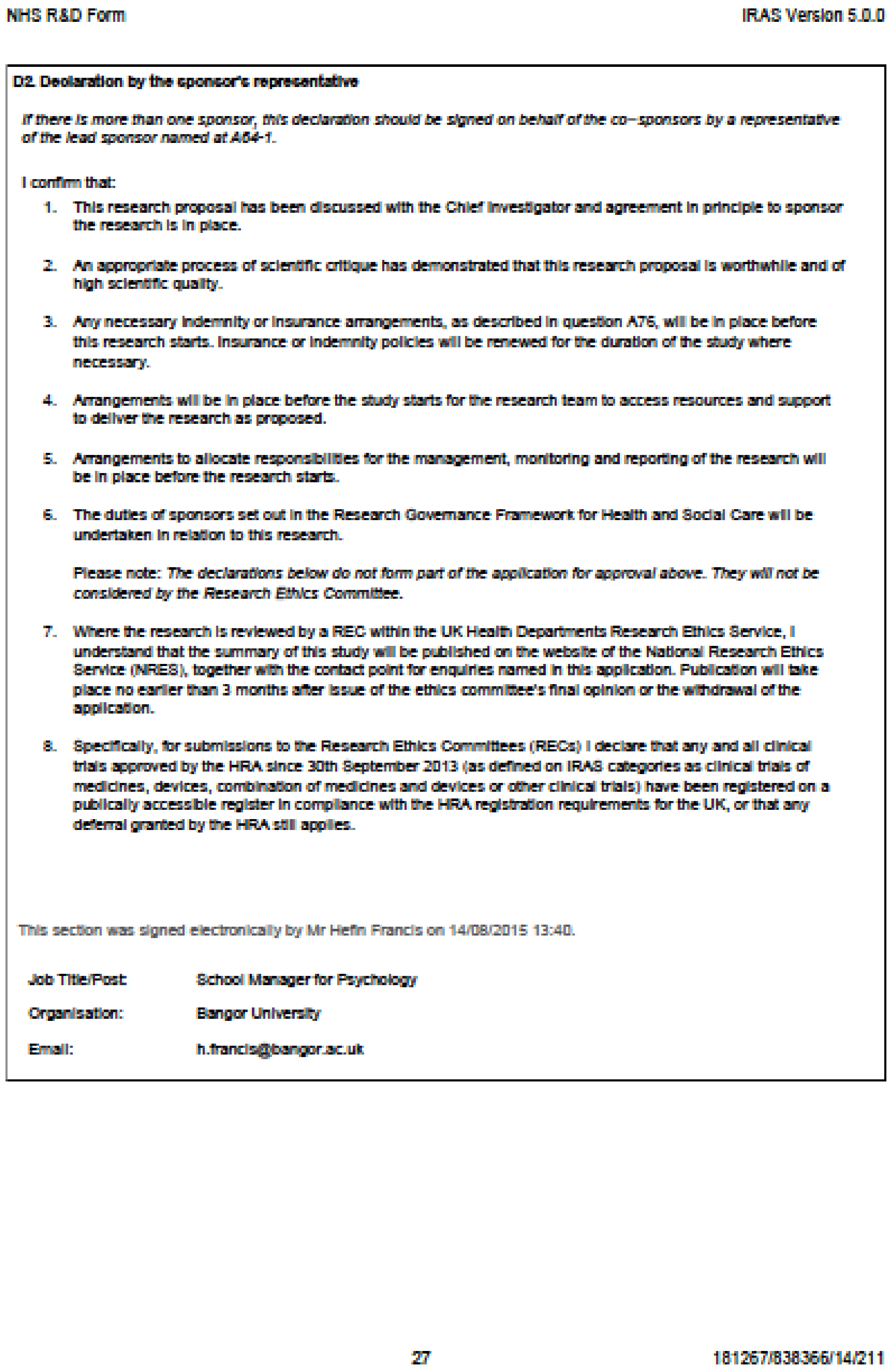

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D2. Declaration by the sponsor's representative

If there is more than one sponsor, this declaration should be signed on behalf of the co–sponsors by a representative of the lead sponsor named at A64-1.

I confirm that:

1. This research proposal has been discussed with the Chief Investigator and agreement in principle to sponsor the research is in place.

2. An appropriate process of scientific critique has demonstrated that this research proposal is worthwhile and of high scientific quality.

3. Any necessary indemnity or insurance arrangements, as described in question A76, will be in place before this research starts. Insurance or indemnity policies will be renewed for the duration of the study where necessary.

4. Arrangements will be in place before the study starts for the research team to access resources and support to deliver the research as proposed.

5. Arrangements to allocate responsibilities for the management, monitoring and reporting of the research will be in place before the research starts.

6. The duties of sponsors set out in the Research Governance Framework for Health and Social Care will be undertaken in relation to this research.

   Please note: *The declarations below do not form part of the application for approval above. They will not be considered by the Research Ethics Committee.*

7. Where the research is reviewed by a REC within the UK Health Departments Research Ethics Service, I understand that the summary of this study will be published on the website of the National Research Ethics Service (NRES), together with the contact point for enquiries named in this application. Publication will take place no earlier than 3 months after issue of the ethics committee's final opinion or the withdrawal of the application.

8. Specifically, for submissions to the Research Ethics Committees (RECs) I declare that any and all clinical trials approved by the HRA since 30th September 2013 (as defined on IRAS categories as clinical trials of medicines, devices, combination of medicines and devices or other clinical trials) have been registered on a publically accessible register in compliance with the HRA registration requirements for the UK, or that any deferral granted by the HRA still applies.

This section was signed electronically by Mr Hefin Francis on 14/08/2015 13:40.

Job Title/Post:	School Manager for Psychology
Organisation:	Bangor University
Email:	h.francis@bangor.ac.uk

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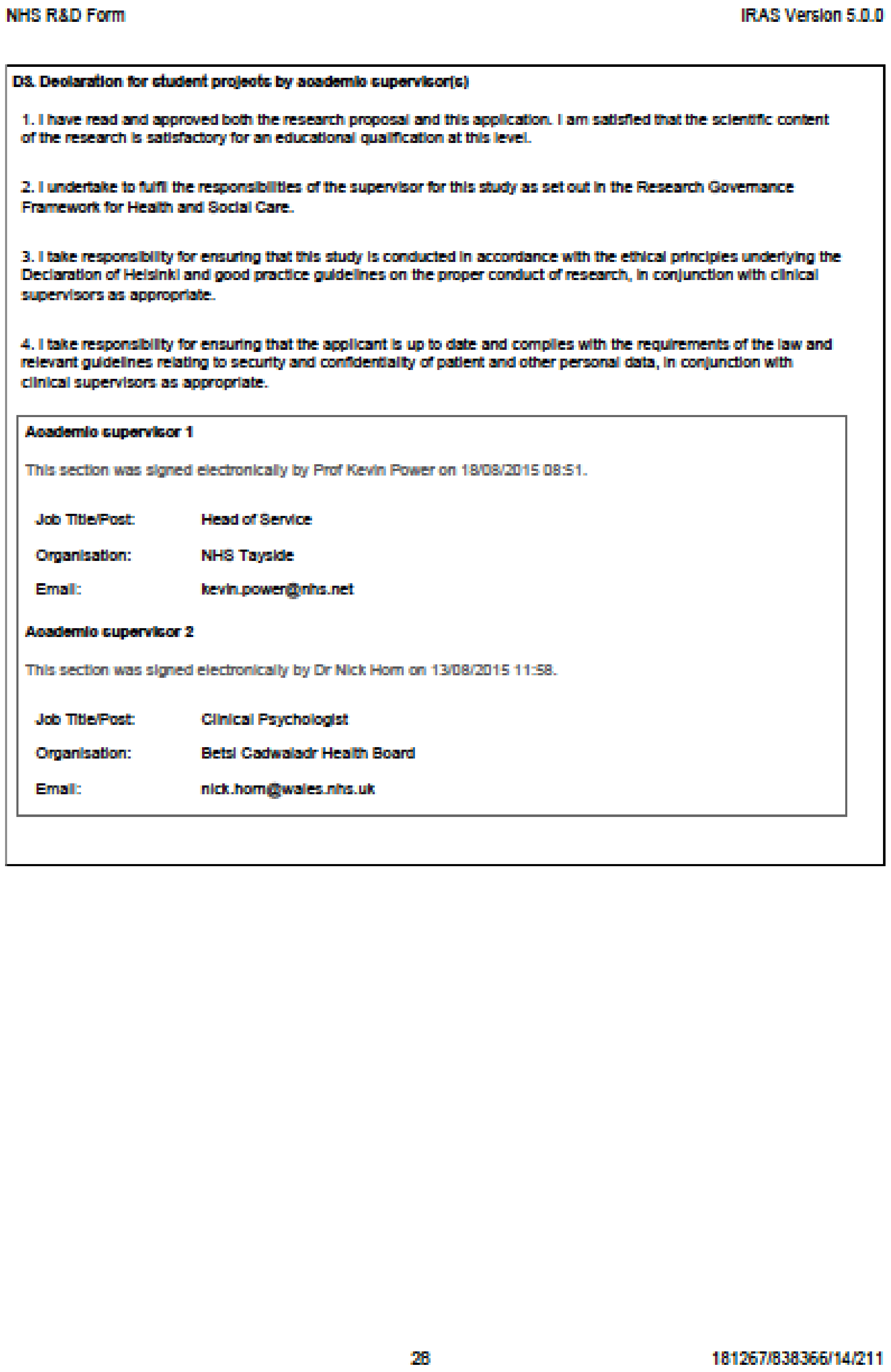

D8. Declaration for student projects by academic supervisor(s)

1. I have read and approved both the research proposal and this application. I am satisfied that the scientific content of the research is satisfactory for an educational qualification at this level.

2. I undertake to fulfil the responsibilities of the supervisor for this study as set out in the Research Governance Framework for Health and Social Care.

3. I take responsibility for ensuring that this study is conducted in accordance with the ethical principles underlying the Declaration of Helsinki and good practice guidelines on the proper conduct of research, in conjunction with clinical supervisors as appropriate.

4. I take responsibility for ensuring that the applicant is up to date and complies with the requirements of the law and relevant guidelines relating to security and confidentiality of patient and other personal data, in conjunction with clinical supervisors as appropriate.

Academic supervisor 1

This section was signed electronically by Prof Kevin Power on 18/08/2015 08:51.

Job Title/Post:	Head of Service
Organisation:	NHS Tayside
Email:	kevin.power@nhs.net

Academic supervisor 2

This section was signed electronically by Dr Nick Horn on 13/08/2015 11:58.

Job Title/Post:	Clinical Psychologist
Organisation:	Betsi Cadwaladr Health Board
Email:	nick.horn@wales.nhs.uk

Research Protocol

Study Title

Training, experience, and perceived competence among clinicians working with complex trauma in adult mental health: the mediating role of knowledge

Name of Researcher

Hannah Went

Name of Supervisors

Dr. Nick Horn and Professor Kevin Power

Background

Prevalence and consequences of trauma

Experiences of traumatic events are known to have significant adverse effects on mental health (Solomon & Davidson, 1997). In particular, the effects of multiple traumatic events have been related to worse outcomes, with the severity and complexity of mental health difficulties positively correlating with the number of previous traumatic events experienced (Briere, Kaltman & Green, 2008). Repeated traumatic events, particularly prolonged and repeated trauma in early years can lead to difficulties with emotion regulation, alterations in self perception, somatic symptoms and difficulty with interpersonal relationships (Ford, Courtois, Steele, Ven der Hart & Nijenhuis, 2004). This type of trauma has been referred to as "complex trauma" (Herman, 1992) and has been found to be a risk factor for a range of difficulties, including substance misuse, eating disorders, suicidality and self harm (Cloitre et al., 2012). As such, it is an important consideration in understanding the mental health difficulties of individuals presenting to mental health services. This is further demonstrated by the findings of Cusack, Frueh and Brady (2004), who found that 91% of individuals presenting to a community mental health service had experienced previous trauma.

Political context

The concept of complex trauma has received increasing attention in recent years, both from researchers and from policy makers. Government policies and guidance relating to complex trauma have frequently been within the context of specific forms of trauma such as childhood sexual abuse or domestic violence. In 2001, the Scottish government set up a cross party working group for survivors of childhood sexual abuse, and in 2005 the National Strategy for Survivors of Childhood Sexual Abuse (Survivor Scotland, 2005) was published. One of the needs identified was training of professions to respond to trauma at all levels. This has more recently been highlighted by the Welsh government in their proposed Gender Based Violence, Domestic Abuse and Sexual Violence (Wales) Bill (Welsh Assembly Government, 2012). This aims to improve service responses to these concerns, including a need for services to effectively work with and manage the mental health needs of individuals exposed to these forms of trauma. This is linked to a recognised need for an increase in staff training, recognising the differing needs of staff working at different levels with these individuals.

The need for staff training

There have been repeated recommendations for services to become more trauma informed and for staff to be better equipped to work with this client group, particularly given the complex mental health needs they may present with. In inpatient settings, failing to recognise trauma in the aetiology of client presenting problems is thought to lead to longer stays in hospital (Tucker, 2002). Gold (2004) highlighted the potentially negative impact of attempting to work with trauma without appropriate training and skills, as this may lead to an exacerbation of client difficulties and proposed training clinicians in working with trauma as a means to address the need for trauma informed services. For example, staff training aimed at increasing clinicians' understanding of the impact of trauma and integrating this into formulations, has been found to increase empathy when working with challenging behaviours with these clients (Greenwald, 2008). Qualitative research has also identified a need for clinicians to be more trauma aware when working with clients who have experienced complex trauma (Harper, Stalker, Palmer & Gadbois, 2008). The frequency at which clinicians ask about a history of previous trauma, particularly childhood sexual abuse, has been previously found to be low and it has been suggested that staff training may increase the frequency at which staff ask about historical trauma (Read, McGregor, Coggan & Thomas, 2006).

Research on staff training

Evaluation of staff training aimed at working with complex trauma has found that knowledge and attitudes improve following training (Brown et al., 2012). Within a forensic population, staffs' perceived confidence and competence have been found to increase following training around working with trauma and self harm (Robertson et al., 2013). A number of surveys have also been conducted investigating the issue of staff training for clinicians working with complex trauma. Campbell & Carlson (1995) found that training of clinicians in adult mental heath services was linked to increases in self-reported knowledge working with survivors of childhood sexual abuse. Results from a further study into clinicians in adult mental health working with childhood sexual abuse found that training and supervision significantly impacted on clinicians perceived confidence, competence, and self reported knowledge (Day, 2003).

Perceived competence

As can be seen from the research to date, a number of factors are found to be related to training around complex trauma, including staff knowledge and perceived competence. A lack of perceived competence has been found to be linked to lower rate of discussing, documenting and working with complex trauma (Salyers, Evans, Bond & Meyer, 2004). In relation to clinicians working with domestic violence, a lack of perceived competence has been cited as one of the barriers to staff enquiry and subsequent disclosure of domestic violence (Rose et al., 2011).

Although training has been found to be linked to increases in perceived competence working with clients who have experienced complex trauma, the research highlights a number of other factors which are likely to impact on perceived competence, including the type of training received, (Beidas & Kendall, 2010) level of experience (Salyers, Evan, Bond & Meyer, 2004) and clinical supervision (Ben-Porat & Itzhaky, 2011).

Current Research

Given the complexities that individuals who have experienced complex trauma may present with, and the repeated calls for further staff training, the current study aims to explore the relationship between training and experience, knowledge, and self reported competence among clinicians working in adult mental health services across two sites, Betsi Cadwaladr University Health Board and NHS Tayside. In an extension of earlier studies, the survey will focus more generally on complex trauma rather than solely on childhood sexual abuse. In addition, given the range of factors thought to impact on perceived competence, including supervision, these variables will also be considered in the current study.

Research Aims

1. To identify the relationship between experience, participation in training and perceived competence
2. To investigate the role of both perceived and actual knowledge in mediating these relationships
3. To investigate the influence of supervision in mediating these relationships

Participant Recruitment

The current study aims to recruit participants from two separate health boards, one in Wales (Betsi Cadwaladr University Health Board [BCUHB]) and one in Scotland (NHS Tayside). The aim is to recruit clinicians employed by these health boards working within primary and secondary care Adult Mental Health Services. Various occupational groups will be invited to participate including psychology, nursing, allied health professions and medicine. Relevant managers will be approached to identify a potential list of participants and to seek permission.

Participants will be asked a series of demographic questions regarding gender, age, education, and years of experience working in mental health. In addition, a number of questions relating to their current work environment will be asked, such as their designation, area of work (primary or secondary mental health) and the estimated percentage of clients on their caseload with a history of complex trauma.

In order to ensure the least disruption to services, mangers will be consulted to determine the most convenient means of participation for their service. Potential participants will be approached via email or through regular team meetings. Paper questionnaire packs can be distributed by post or during team meetings and will include a prepaid return envelope.

The estimated sample size is 150 participants

Design and procedure

Design

A quantitative cross sectional design will be used. Data will be collected via paper questionnaires. The dependent variables will be perceived staff competence working with complex trauma. Independent variables that will be investigated are experience, participation in training and supervision.

Subjective ratings of knowledge and reported knowledge of models of treatment will be considered as a mediating variable.

Procedure

Potential participants will be approached both by email and via attendance at regular team meetings. Paper questionnaire packs will be distributed during team meetings and will include a prepaid return envelope addressed to the chief investigator. Questionnaire packs will include information about the background of the study and information regarding consent and the right to withdraw.

Measures

Data will be collected via four questionnaires which will comprise of questions about demographics, level of experience, and training experiences, as well as questionnaires on supervision, knowledge and perceived competence. All data will be based on subjective self report.

Demographic questionnaire

This has been designed specifically for the current study and will consist of questions relating to participants previous training and experience, and background questions.

Measure 1. Knowledge questionnaire

Declarative knowledge will be measured using an 11 item questionnaire developed by the author. This will consist of multiple choice questions on their general knowledge of complex trauma and specific knowledge about working with complex trauma. A subjective measure of knowledge will also be included by asking clinicians to rate their perceived knowledge on a likert type scale.

Measure 2: Self-perceived competence

Perceived confidence and competence will be measured using the confidence / competence subscale of an attitude scale previously used in research for assessing factors influencing treatment of PTSD and trauma related difficulties. This subscale has been found to have good internal consistency with Cronbach's alpha of 0.89 (Salyers, Evans, Bond & Meyer, 2004)

Measure 3. Supervision

Supervision will be measured using the MCSS-26 which is a 26 item scale measuring the effectiveness and quality of clinical supervision (Winstanely & White 2011). This consists of 6 subscales, 5 of which demonstrate reasonable to good internal consistency of between $\alpha = 0.63$ and $\alpha = 0.89$. The subscale of 'importance/ value' which measures how important clinical supervision is valued to be, has poorer internal consistency of $\alpha = 0.49$ (Buus & Gonge, 2013).

Data Management

All data will be held securely and accordingly with the BCUHB and NHS Tayside Data

Protection policies. Returned questionnaires will be coded personally by the chief investigator and will be stored in a locked cabinet on NHS premises in BCUHB. The coded data will be entered on to an electronic statistical package data set (SPSS) that will be password protected. The anonymised data set will be stored on a BCUHB NHS computer and only the chief investigator and supervisors will be authorised to access the data set.

Data Analysis

Data will be analysed using SPSS computerised statistical software package. Multiple regression analyses will be run to investigate for significant relationship between the variables. Further tests of mediation for supervision and knowledge will be conducted using a bootstrapping method (Fritz & MacKinnon, 2007).

Bootstrapping analysis does not require a specific sample size, however, research has suggested that an estimated sample size of 148 is required to detect a small to medium effect size with a power of 0.8 (Fritz & MacKinnon, 2007).

Diversity

It is hoped that the sample will encompass a range of professionals with differing levels of training and experience working across two health boards. All clinicians working within adult mental health will be invited to participate, however, the diversity of the sample will reflect the sample that chooses to participate. The inclusion of two health boards is anticipated to improve the generalizability of the results.

Regarding the Welsh language, participant information sheets will be translated into Welsh and provided in both English and Welsh to the participants in Betsi Cadwaladr University Health Board. The questionnaires will only be provided in English as the psychometric properties of these are only relevant to the English version.

Ethical/ Registration issues

Ethical approval will be sought from the Bangor University School of Psychology and the NHS Health Boards Research & Development (R&D).

Feedback

Feedback of the research findings will be provided to team leaders and lead clinicians. More detailed feedback will be provided to individual participants on request. Wider dissemination of results will be considered including talks or posters at relevant meetings or more widely as publication as a journal article.

Risk Assessment

Participants will be NHS employees and, as such, there is a chance that they may be reluctant to give an honest account of their perceived competence, particularly if they do not feel particularly confident or competent in their role. As such, the study has been designed to protect the anonymity of participants. There will be minimal identifiable information in the questionnaire packs. Questions relating to role and experience which could potentially be identifiable have been categorised into broad categories to improve anonymity. In addition, consent forms will not be sent alongside information packs to protect the anonymity of participants.

Informed consent will be implied by the return of questionnaires. The participant information sheets will clearly highlight the voluntary nature of the research and that consent to participate in the research will be assumed if questionnaires are returned. The voluntary nature of participation will also be emphasised to the staff team and team managers at team meetings.

There are minimal risks with regard to data protection and confidentiality. Questionnaire responses will remain anonymous to reduce the potential to identify individual staff who have or have not participated. All data will be stored securely and treated in accordance with BCUHB and NHS Tayside data protection policies. Data held electronically will be stored on NHS computers and will be password protected.

The survey includes questions relating to working with complex trauma, which includes childhood sexual abuse. Clinicians working within mental health services are likely to come into contact with accounts of trauma routinely during their clinical practice. As the current research does not ask about details of trauma minimal distress participant distress is anticipated. In addition, participants will be informed about the nature of the questions in advance in the participant information sheet.

Data Storage

Data will be collected in line with the Data Protection Act (1998). Completed questionnaires will be kept in a locked filing cabinet in Hafod Mental Health Resource Centre. Anonymous data will be stored securely on the trainee’s personal drive on BCUHB computers. Data will be stored for five years in line with guidelines for publishing research.

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GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

PRIFYSGOL BANGOR UNIVERSITY

Participant Information Sheet

Information about the research

You are invited to take part in a research study that is being carried out with staff across Betsi Cadwaladr University Health Board (BCUHB) and NHS Tayside. This is being carried out as part of a Clinical Psychology Doctorate with the North Wales Clinical Psychology Programme. It is important you have all the information to understand why you are doing the research and what it will involve if you choose to take part.

Before consenting to participate in the research, please read the following information sheet carefully. If you have any questions regarding taking part in the research, please feel free to contact the principal researcher, Hannah Went, Trainee Clinical Psychologist (hannah.went@wales.nhs.uk). Please note that once you return the questionnaires, it will not be possible to withdraw your responses from the study due to the anonymous nature of the questionnaires.

Research Project Title

Training, knowledge, and perceived competence among clinicians working with complex trauma in adult mental health

Research Team

Hannah Went, Trainee Clinical Psychologist
Dr. Nick Horn, Clinical Psychologist (BCUHB)
Professor Kevin Power, Head of Tayside Psychological Therapies Service (NHS Tayside)

What is the purpose of the study?

Multiple, repeated experiences of trauma, known as complex trauma, are common in patients presenting to adult mental health services. Previous research suggests that there is a range of factors that may influence clinicians’ self perceived competence working with this client group.

The aim of the study is to further explore the factors that contribute to the perceived competence of staff in adult mental health services when working with clients who have experienced complex trauma. The study is interested in individuals’ experiences, training and knowledge of complex trauma working with this client group.

This study has been granted ethical approval by Bangor University and has been approved by the research and development committee in BCUHB and NHS Tayside.

Why am I being asked to take part?

You have been asked to take part because the study is inviting qualified clinicians working in primary and secondary care adult mental health services across BCUHB and NHS Tayside to participate.

What does the study involve?
The study will require you to answer a number of questions about complex trauma and your work with clients who have experienced complex trauma. You will not be asked questions about work with specific clients. This will take approximately 25 minutes to complete.

Do I have to take part?
It is up to you to decide whether or not you would like to participate in this study. You can stop the survey at any time without giving a reason if you no longer wish to participate.

What will happen if I do not want to complete the survey?
Participation is voluntary. Deciding not to take part will not impact any aspect of your employment, or your relationship with the University.

Once you have submitted your survey it will not be possible to withdraw your responses.

Are there any benefits or risks?
There are no risks anticipated in participating in the study.

By completing this survey you will be contributing to the research base and aiding our understanding of what can help clinicians feel more competent when working with clients who have experienced complex trauma. This will help to highlight both strengths and areas for development within services relating to working with complex trauma reactions. We cannot promise that the results of this research will impact on any training gaps or support needs which you may highlight.

Will my information be kept confidential?
All information will be kept strictly confidential. All survey responses will be anonymous and you will not be asked any questions about personally identifiable information such as your name or address. However, you will be asked some questions about your employment such as which professional group you are part of and whether you work in primary or secondary care. You will not be asked which team you work with.

The information from the surveys will be anonymous and will be securely stored for 5 years to allow for scrutiny following publication.

If you would like to receive feedback upon completion of the study you can contact the researcher to request this. Your details will be stored separately and will be destroyed once feedback has been given.

What will happen to the results of the research study?
The results of the study will be fed back to managers within the health boards and may be submitted to a journal for publication.

Welsh Language
Information about the study will be provided bilingually. We recognise that some participants may prefer to receive the questionnaires in Welsh. Unfortunately questionnaires will only be provided in English to ensure consistency across both

Welsh and English speakers. This will help to maintain the validity of the questionnaire results.

Who do I contact with any concerns about this study?
If you have any concerns or complaints about this study, or the conduct of individuals conducting this study, then please contact Mr. Hefin Francis, School Manager, School of Psychology, Adeilad Brigantia, Penrallt Road, Bangor, Gwynedd LL57 2AS or e-mail h.francis@bangor.ac.uk.

Who do I contact about the study?
For further information you can contact the Principal Investigator:

Hannah Went
Trainee Clinical Psychologist
NWCPP
School of Psychology
Bangor University
Bangor
Gwynedd
LL57 2AS

Email: hannah.went@wales.nhs.uk

Alternatively you can contact the project supervisors:

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Head of Tayside Psychological Therapies Service
7 Dudhope Terrace
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Email: kevin.power@nhs.net

Dr Nick Horn
Clinical Psychologist
Tim Dyffryn Clwyd CMHT
Middle Lane
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Taflen Wybodaeth i Gyfranogwyr

Gwybodaeth am yr ymchwil

Gwahoddir chi i gymryd rhan mewn astudiaeth ymchwil a gynhelir gyda staff Bwrdd Iechyd Prifysgol Betsi Cadwaladr a GIG Tayside. Gwneir yr ymchwil fel rhan o ddoethuriaeth Seicoleg Glinigol gyda Rhaglen Seicoleg Glinigol Gogledd Cymru. Mae’n bwysig bod gennych yr holl wybodaeth i ddeall pam rydych yn gwneud yr ymchwil a beth fydd yn digwydd os byddwch yn penderfynu cymryd rhan.

Darllenwch y daflen wybodaeth ganlynol yn ofalus cyn cytuno i gymryd rhan yn yr ymchwil. Os oes gennych unrhyw gwestiynau ynglŷn â chymryd rhan yn yr ymchwil, mae croeso i chi gysylltu â'r prif ymchwilydd, Hannah Went, Seicolegydd Clinigol dan Hyfforddiant (hannah.went@wales.nhs.uk). Sylwer na fydd yn bosib i chi dynnu eich atebion yn ôl ar ôl i chi ddychwelyd yr holiaduron oherwydd natur ddienw yr holiaduron.

Teitl y Project Ymchwil

Hyfforddiant, gwybodaeth a chymhwysedd canfyddedig clinigwyr sy'n gweithio gyda thrawma cymhleth ym maes iechyd meddwl oedolion.

Y Tîm Ymchwil

Hannah Went, Seicolegydd Clinigol dan Hyfforddiant
Dr Nick Horn, Seicolegydd Clinigol (Bwrdd Iechyd Prifysgol Betsi Cadwaladr)
Yr Athro Kevin Power, Pennaeth Gwasanaeth Therapïau Seicolegol Tayside (GIG Tayside)

Beth yw pwrpas yr astudiaeth?

Mae profiad o drawma cymhleth yn gyffredin ymysg cleifion sy'n ymweld â gwasanaethau iechyd meddwl oedolion ac mae gwaith ymchwil blaenorol yn awgrymu bod amrywiaeth o ffactorau a all ddylanwadu ar gymhwysedd hunan ganfyddedig clinigwyr sy'n gweithio gyda'r grŵp hwn o gleientiaid.

Nod yr astudiaeth yw ymchwilio i'r ffactorau sy'n cyfrannu at gymhwysedd canfyddedig staff wrth iddynt weithio gyda thrawma cymhleth ym maes gwasanaethau iechyd meddwl oedolion. Bydd yr astudiaeth yn canolbwyntio ar brofiadau, hyfforddiant a gwybodaeth unigolion sy'n gweithio gyda'r grŵp hwn o gleientiaid am drawma cymhleth.

Mae'r astudiaeth hon wedi cael cymeradwyaeth foesegol gan Brifysgol Bangor ac wedi cael ei chymeradwyo gan y pwyllgor ymchwil a datblygu ym Mwrdd Iechyd Prifysgol Betsi Cadwaladr ac wedi ei chymeradwyo gan adran adnoddau dynol a chyfarwyddwr iechyd meddwl GIG Tayside.

Pam rydych yn gofyn i mi gymryd rhan?

Gofynnwyd ichi gymryd rhan oherwydd bod yr astudiaeth yn gwahodd yr holl glinigwyr sy'n gweithio ym maes gofal sylfaenol ac eilaidd yng ngwasanaethau iechyd meddwl oedolion ar draws Bwrdd Iechyd Prifysgol Betsi Cadwaladr a GIG Tayside.

Beth fydd yn digwydd yn yr astudiaeth?

Bydd yr astudiaeth yn gofyn i chi ateb nifer o gwestiynau am drawma cymhleth ac am eich gwaith gyda chleientiaid sydd wedi cael profiad o drawma cymhleth. Ni ofynnir cwestiynau i chi am weithio gyda chleientiaid penodol. Bydd yr holiadur yn cymryd rhyw 25 munud i’w lenwi.

A oes rhaid imi gymryd rhan?
Chi sydd i benderfynu p’un a ydych eisiau cymryd rhan yn yr astudiaeth hon ai peidio. Gallwch dynnu allan o'r astudiaeth ar unrhyw adeg, heb roi rheswm os nad ydych eisiau cymryd rhan mwyach.

Beth fydd yn digwydd os nad wyf am gwblhau'r holiadur?
Eich dewis chi yw cymryd rhan ai peidio. Ni fydd penderfynu peidio â chymryd rhan yn cael effaith ar unrhyw agwedd ar eich cyflogaeth neu gysylltiad gyda’r brifysgol.

Unwaith y byddwch wedi cyflwyno eich holiadur, ni fydd modd ichi dynnu eich atebion yn ôl.

A oes unrhyw fanteision neu risgiau?
Ni ragwelir bod unrhyw beryglon yn gysylltiedig â chymryd rhan yn yr astudiaeth hon.

Trwy gymryd rhan yn yr astudiaeth hon byddwch yn cyfrannu at y sylfaen ymchwil ac yn cynyddu ein dealltwriaeth o'r hyn y gall helpu clinigwyr i deimlo'n fwy cymwys wrth weithio gyda thrawma cymhleth. Bydd hyn yn helpu i dynnu sylw at y cryfderau a'r meysydd i'w datblygu yn y gwasanaethau sy'n ymwneud â thrawma cymhleth. Ni allwn addo y bydd canlyniadau'r astudiaeth hon yn effeithio ar unrhyw fylchau o ran hyfforddiant neu anghenion o ran cymorth y byddwch yn tynnu sylw atynt.

A fydd y wybodaeth amdanaf yn cael ei chadw’n gyfrinachol?
Cedwir yr holl wybodaeth yn llwyr gyfrinachol. Bydd yr holl ymatebion yn ddienw ac ni ofynnir i chi am unrhyw wybodaeth bersonol y gellir ei defnyddio i'ch adnabod megis eich enw neu eich cyfeiriad. Ond gofynnir rhai cwestiynau i chi am eich swydd, megis pa grŵp proffesiynol rydych yn rhan ohono ac a ydych yn gweithio ym maes gofal sylfaenol neu eilaidd. Ni ofynnir i chi pa dîm rydych yn gweithio gydag ef.

Bydd y wybodaeth o'r holiaduron yn ddienw a chaiff ei storio'n ddiogel am 5 mlynedd er mwyn gallu craffu ar y wybodaeth ar ôl ei chyhoeddi.

Os hoffech gael adborth ar ôl i’r astudiaeth ddod i ben, gallwch gysylltu â'r ymchwilydd i ofyn am hyn. Cedwir eich manylion ar gronfa ddata ar wahân a chânt eu dinistrio unwaith bydd yr adborth wedi ei roi.

Beth fydd yn digwydd i ganlyniadau’r astudiaeth ymchwil?
Caiff canlyniadau'r astudiaeth eu bwydo yn ôl i reolwyr yn y byrddau iechyd ac mae'n bosib y cânt eu cyhoeddi mewn cyfnodolyn.

Yr Iaith Gymraeg
Darperir gwybodaeth am yr astudiaeth yn ddwyieithog. Rydym yn sylweddoli y bydd yn well gan rai cyfranogwyr ateb holiaduron yn y Gymraeg. Yn anffodus, dim ond yn Saesneg y darperir yr holiaduron er mwyn sicrhau cysondeb ymysg y siaradwyr Cymraeg a Saesneg. Bydd hyn yn gymorth i sicrhau dilysrwydd canlyniadau'r holiaduron.

Â phwy ddylwn gysylltu os oes gennyf unrhyw bryderon ynglŷn â'r astudiaeth hon?
Os oes gennych unrhyw bryderon neu gwynion ynglŷn â’r astudiaeth hon, neu ynglŷn ag ymddygiad unigolion sy’n cynnal yr astudiaeth hon, cysylltwch â Mr Hefin Francis, Rheolwr yr Ysgol, Ysgol Seicoleg, Adeilad Brigantia, Ffordd Penrallt, Bangor, Gwynedd LL57 2AS, neu anfonwch e-bost at h.francis@bangor.ac.uk

Â phwy ddylwn gysylltu ynglŷn â’r astudiaeth?
Am ragor o wybodaeth, gallwch gysylltu â’r prif ymchwilydd:

Hannah Went
Seicolegydd Clinigol dan Hyfforddiant
Rhaglen Seicoleg Glinigol Gogledd Cymru
Ysgol Seicoleg
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Fel arall, gallwch gysylltu â goruchwylwyr y project:

Yr Athro Kevin Williams
Head of Tayside Psychological Therapies Service
7 Dudhope Terrace
Dundee
DD3 6HG

E-bost: kevin.power@nhs.net

Dr Nick Horn
Seicolegydd Clinigol
Tîm Iechyd Meddwl Cymunedol Dyffryn Clwyd
Middle Lane
Dinbych
LL16 3UR

E-bost: nick.horn@wales.nhs.uk

Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

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North Wales Clinical Psychology Programme
43 College Road
Bangor University
Bangor
Gwynedd
LL57 2DG

Date:

Dear

I am conducting a study into clinicians' perceived competence working with clients in Adult Mental Health Services who have experienced trauma. This research is being undertaken as part of a Doctorate in Clinical Psychology with the North Wales Clinical Psychology Programme at Bangor University. The study has received ethical approval from Bangor University.

The aim of the research is to find out what influences clinicians' perceived competence working with these clients. I am asking all clinicians in primary and secondary care Adult Mental Heath Services across Betsi Cadwaladr University Health Board and NHS Tayside to take part in the study.

I would be grateful for your time in completing some questionnaires as part of this research. This should take around 20 minutes. All responses will be kept confidential and participation is entirely voluntary. Your feedback is highly valuable, as it will help to further our understanding into what influences clinicians' perceived competence.

If you are willing to take part, please read the attached information sheet before completing and returning the enclosed questionnaires.

If you have any questions or queries about taking part in the research, please do not hesitate to contact me at:

Hannah.went@wales.nhs.uk

Thank you for your time

Yours sincerely,

Hannah Went
Trainee Clinical Psychologist

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Rhaglen Seicoleg Glinigol Gogledd Cymru
43 Ffordd y Coleg
Prifysgol Bangor
Bangor
Gwynedd
LL57 2DG

Dyddiad:

Annwyl

Rwy’n cynnal astudiaeth ymchwil i gymhwysedd canfyddedig clinigwyr sy'n gweithio ym maes Gwasanaethau Iechyd Meddwl Oedolion gyda chleientiaid sydd wedi profi trawma. Mae'r ymchwil yn cael ei wneud fel rhan o ddoethuriaeth Seicoleg Glinigol gyda Rhaglen Seicoleg Glinigol Gogledd Cymru ym Mhrifysgol Bangor. Mae’r astudiaeth hon wedi cael cymeradwyaeth foesegol gan Brifysgol Bangor.

Nod yr ymchwil yw darganfod beth sy'n dylanwadu ar gymhwysedd canfyddedig clinigwyr sy'n gweithio gyda'r cleientiaid hyn. Rwy’n gofyn i'r holl glinigwyr sy'n gweithio ym maes gofal sylfaenol a gofal eilaidd y Gwasanaethau Iechyd Meddwl Oedolion ac ar draws Bwrdd Iechyd Prifysgol Betsi Cadwaladr a GIG Tayside i gymryd rhan yn yr astudiaeth.

Buaswn yn ddiolchgar petaech yn gallu rhoi o'ch amser i lenwi rhai holiaduron fel rhan o'r astudiaeth hon. Dylai gymryd rhyw 20 munud i’w llenwi. Cedwir yr holl atebion yn gyfrinachol a byddwch yn cymryd rhan o'ch gwirfodd. Mae eich adborth yn werthfawr iawn, gan y bydd yn gymorth i ni gynyddu ein dealltwriaeth o'r hyn sy'n dylanwadu ar gymhwysedd canfyddedig clinigwyr.

Os ydych yn fodlon cymryd rhan, darllenwch y daflen wybodaeth amgaeedig cyn llenwi a dychwelyd yr holiaduron amgaeedig.

Os oes gennych unrhyw gwestiynau ynglŷn â chymryd rhan yn yr ymchwil, mae croeso i chi gysylltu â mi:

Hannah.went@wales.nhs.uk

Diolch am roi o’ch amser.

Yn gywir,

Hannah Went
Seicolegydd Clinigol dan Hyfforddiant

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Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

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Participant Questionnaire

Questions about you:

1. Are you

Male ☐ Female ☐ Transgender ☐ Prefer not to say ☐

2. How old are you?

Under 20 ☐ 21- 30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ 61-70 ☐

Questions about your job:

3. What professional group are you a member of:

☐ Nursing ☐ Psychology / Psychological Therapies
☐ Medicine ☐ Allied Health Professions
☐ Other (please specify) ____________________________

4. What is the highest educational qualification you have obtained?

☐ O grade/ Standard Grade/ GCSE or equivalent
☐ A Level/ Higher/ SYS or equivalent
☐ HND/ HNC or equivalent
☐ Degree (e.g., College degree, Bachelors) or equivalent
☐ Higher Degree (e.g., MA / MSc / PhD)

5. How long have you worked in your current professional role (in years)?______

6. How long have you worked in the field of mental health (in years)?__________

7. Which Health Board do you work for?

☐ Betsi Cadwaladr University Health Board
☐ NHS Tayside

8. Please select the option that best describes the service(s) you currently work in. Please tick all that apply.

☐ Primary care adult mental health
☐ Secondary care adult mental health

Questions about your work with clients

9. How often do you ask clients about a history of trauma?

1	2	3	4	5
Never	Occasionally	Sometimes	Usually	Always

10. How important do you believe it is to ask clients about a history of trauma?

1	2	3	4	5
Not at all important	Slightly important	Quite important	Very important	Extremely important

The following questions all relate to your work with clients who have experienced traumatic events. Some of these relate specifically to clients who have experienced **complex trauma**. **Complex trauma** refers to multiple, repeated, traumatic events, typically interpersonal in their nature such as repeated physical or sexual abuse.

Please note: many clients may have experiences numerous, unrelated traumatic events, which would not be classified as complex trauma.

11. In the past 12 months, have you worked with clients who have experienced **any** form of trauma?

    Yes ☐ No ☐ Unsure ☐

12. In the past 12 months, have you worked with clients who have experienced **complex trauma?**

    Yes ☐ No ☐ Unsure ☐

13. What percentage of clients on your current caseload do you estimate have a history of **any** form of trauma?

    ________________%

14. What percentage of clients on your current caseload do you estimate have a history of **complex trauma?**

    ________________%

15. What percentage of clients on your caseload have their main presenting problem related to a history of **any** form of trauma?

    ________________%

16. What percentage of clients on your caseload have their main presenting problem

related to a history of **complex trauma**?

________________%

17. How knowledgeable do you perceive yourself to be about trauma and the treatment of mental health difficulties related to trauma of any type?

1	2	3	4	5
Not at all knowledgeable	Slightly knowledgeable	Quite knowledgeable	Very knowledgeable	Extremely knowledgeable

18. How knowledgeable do you perceive yourself to be about **complex trauma** and the treatment of mental health difficulties related to **complex trauma**?

1	2	3	4	5
Not at all knowledgeable	Slightly knowledgeable	Quite knowledgeable	Very knowledgeable	Extremely knowledgeable

Questions about training experiences:

19. Did you receive training around working with trauma as part of your professional training qualification?

Any Trauma Yes ☐ No ☐

Complex trauma Yes ☐ No ☐

20. Since completing your professional training, have you received any further training on trauma?

Any Trauma Yes ☐ No ☐

Complex trauma Yes ☐ No ☐

If you answered no, please skip to question 22.

21. What training have you received?

Please note: this question refers to training you have received since completing your professional training.

i. Please briefly describe the type of training you have received, e.g. general awareness of the impact of trauma, skills working with trauma or training in a specific treatment intervention.

____

____

____

____

ii. Did this training focus on complex trauma? Yes ☐ No ☐

iii. What format was the training?

☐ Didactic (e.g. a lecture)
☐ Interactive (e.g. included role plays)
☐ Mixed didactic and interactive

iv. How long was the training course?____________(days)

or ____________(hours)

22. Would you be interested in attending further training around working with complex trauma

Yes ☐ No ☐ Don’t know ☐

If yes, what has prevented you from attending further training? Please tick all that apply.

☐ No training available
☐ No funding available to attend training
☐ Other training needs prioritised
☐ Lack of time
☐ Other (please specify)____

____

____

____

____

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Knowledge

Please answer the following questions based on your current knowledge of complex trauma. This includes knowledge about mental health difficulties that can develop as a consequence of complex trauma. Throughout this questionnaire, these difficulties are referred to as complex post traumatic stress disorder.

Staff will have a range of knowledge on these topics. Some staff may only have a little knowledge whereas others may have more extensive knowledge. As such, we are not expecting all staff to have substantial knowledge on this topic. We are interested in getting an accurate reflection of your knowledge at the present time. Therefore please do not seek further information prior to answering these questions.

1. Childhood sexual abuse can often be considered a form of complex trauma. Roughly what percentage of the general population has a history of childhood sexual abuse?

   5-15% ☐ 16-25% ☐ 26-35% ☐ 36-45% ☐ 46-55% ☐

2. Recommended psychological treatments for PTSD and complex post traumatic stress disorder are the same:

   Always ☐ Sometimes ☐ Never ☐ Don’t know ☐

3. Complex post traumatic stress disorder (CPTSD) is a recognised diagnosis in DSM V

   Yes ☐ No ☐ Don’t know ☐

4. Complex post traumatic stress disorder (CPTSD) is a recognised diagnosis in ICD 10

   Yes ☐ No ☐ Don’t know ☐

5. Compared to clients with major depression, clients with difficulties relating to complex trauma are more likely to have difficulties developing a therapeutic relationship

   Yes ☐ No ☐ Don’t know ☐

6. Are you aware of the phased based approach to the treatment of complex post traumatic stress disorder?

   Yes ☐ No ☐

7. Which of the following advocate a phased based approach to treatment of complex traumatic stress disorders:

   NICE guidelines Yes ☐ No ☐ Don’t know ☐

   International Society for Traumatic

Stress Studies	Yes ☐	No ☐	Don’t know ☐
The Psychological Therapies Matrix	Yes ☐	No ☐	Don’t know ☐

8. In phased based approaches to treatment of complex traumatic stress disorder, how many stages are there?

2 ☐ 3 ☐ 4 ☐ 5 ☐ Don’t know ☐

9. Individuals who have experienced complex trauma should be encouraged to disclose their experiences

Always ☐ Sometimes ☐ Never ☐ Don’t know ☐

10. Compared to psychological treatments of major depression, when treating difficulties relating to complex trauma, the therapeutic relationship is:

Less important ☐ As important ☐ More important ☐ Don’t know ☐

11. In clients presenting with comorbid substance misuse and complex post traumatic stress disorder, traumatic memories should generally be addressed prior to addressing the substance misuse

Yes ☐ No ☐ Don’t know ☐

12. Which of the following have been found to be associated with a history of complex trauma?

Phobias	Yes ☐	No ☐	Don’t know ☐
Depression	Yes ☐	No ☐	Don’t know ☐
Eating disorders	Yes ☐	No ☐	Don’t know ☐
Self harm	Yes ☐	No ☐	Don’t know ☐
Substance misuse	Yes ☐	No ☐	Don’t know ☐
Psychosis	Yes ☐	No ☐	Don’t know ☐

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Perceived Competence

For the following statements, please indicate how much you agree with each statement by entering the number of your choice from the scale below.

1	2	3	4	5
Strongly disagree	Disagree	Neutral / don’t know	Agree	Strongly agree

1. I usually ask my clients about their history of traumatic events ______
2. I don’t feel comfortable talking with clients about their traumatic experiences ______
3. I feel comfortable with my knowledge of complex trauma ______
4. I feel comfortable with my knowledge of mental health problems that may be related to complex trauma ______
5. I feel comfortable with my knowledge of effective treatment approaches for complex post traumatic stress disorder ______
6. I am confident in my ability to treat complex post traumatic stress disorder ______
7. I believe I can detect symptoms of complex post traumatic stress disorder ______
8. I have worked with a lot of clients who have symptoms of complex post traumatic stress disorder ______

Supervision

The following questionnaire aims to explore your experiences of clinical supervision (i.e. supervision that is focused upon your clinical work with clients, not management or caseload supervision).

Do you currently receive clinical supervision? Yes ☐ No ☐

If **Yes**, please complete the attached MCSS-26 questionnaire.

If **No**, and you do not currently receive clinical supervision, please skip the attached MCSS-26 questionnaire.

MCSS-26©

Allied Health Version 1.0

About this questionnaire

This questionnaire has been developed from the original Manchester Clinical Supervision Scale©. It is designed for self-completion by personnel currently receiving clinical supervision in a nursing or other healthcare setting.

The MCSS-26© aims to measure the effectiveness of and satisfaction with the supervision received. It provides sub-scores for six key elements of the Clinical Supervision process.

How to fill in this questionnaire

Please answer all of the questions as accurately as you can. Try not to leave any blank. Complete the questionnaire in the order it appears

Do not spend too long thinking about each item; your first response is probably the best one. If there is anything you do not understand, please ask for help

Date of completion ______________________

Further enquiries:

E: enquiries@osmanconsulting.com.au
W: www.osmanconsulting.com

The MCSS-26©

Drawing on your **current experience of receiving Clinical Supervision**, indicate your level of agreement with the following 26 statements by ticking the box which best represents your answer. 0 means you strongly disagree, 1 means you disagree, 2 means you have no opinion, 3 means you agree, 4 means you strongly agree	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
1. Other work pressures interfere with CS sessions	0☐	1☐	2☐	3☐	4☐
2. It is difficult to find the time for CS sessions	0☐	1☐	2☐	3☐	4☐
3. CS sessions are not necessary/don't solve anything	0☐	1☐	2☐	3☐	4☐
4. Time spent on CS takes me away from my real work in the clinical area	0☐	1☐	2☐	3☐	4☐
5. Fitting CS sessions in can lead to more pressure at work	0☐	1☐	2☐	3☐	4☐
6. I find CS sessions time consuming	0☐	1☐	2☐	3☐	4☐
7. My supervisor gives me support and encouragement	0☐	1☐	2☐	3☐	4☐
8. CS sessions are intrusive	0☐	1☐	2☐	3☐	4☐
9. CS gives me time to 'reflect'	0☐	1☐	2☐	3☐	4☐
10. Work problems can be tackled constructively during CS sessions	0☐	1☐	2☐	3☐	4☐
11. CS sessions facilitate reflective practice	0☐	1☐	2☐	3☐	4☐
12. My supervisor offers an 'unbiased' opinion	0☐	1☐	2☐	3☐	4☐
13. I can discuss sensitive issues encountered during my clinical casework with my supervisor	0☐	1☐	2☐	3☐	4☐

The MCSS-26©

Drawing on your **current experience of receiving Clinical Supervision**, indicate your level of agreement with the following 26 statements by ticking the box which best represents your answer.

0 means you strongly disagree, 1 means you disagree, 2 means you have no opinion, 3 means you agree, 4 means you strongly agree

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
14. My CS sessions are an important part of my work routine	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
15. I learn from my supervisor's experiences	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
16. It is important to make time for CS sessions	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
17. My supervisor provides me with valuable advice	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
18. My supervisor is very open with me	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
19. Sessions with my supervisor widen my clinical knowledge base	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
20. CS is unnecessary for experienced/established staff	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
21. My supervisor acts in a superior manner during our sessions	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
22. Clinical supervision makes me a better practitioner	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
23. CS sessions motivate staff	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
24. I can widen my skill base during my CS sessions	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
25. My supervisor offers me guidance with patient/client care	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
26. I think receiving clinical supervision improves the quality of care I give	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐

ABOUT YOUR CLINICAL SUPERVISION SESSIONS

How long have you been receiving CS	Years ☐ ☐		Months ☐ ☐		
	Weekly	Every 2 weeks	Monthly	2-3 months	>3 months
How often are your sessions	☐	☐	☐	☐	☐
	Within the workplace		Away from the workplace		Both
Where do your sessions take place	☐		☐		☐
	One to one	Triad	Group		
Are your CS sessions	☐	☐	☐	Other____________________	
	<15 mins	15-30 mins	31-45 mins	46-60 mins	>60 mins
How long are your CS sessions	☐	☐	☐	☐	☐

Please check all the pages in this questionnaire, to ensure that you have answered every question. Thank you for your participation

Bangor University Ethics Confirmation Email

Received 28th September 2015

Dear Hannah,

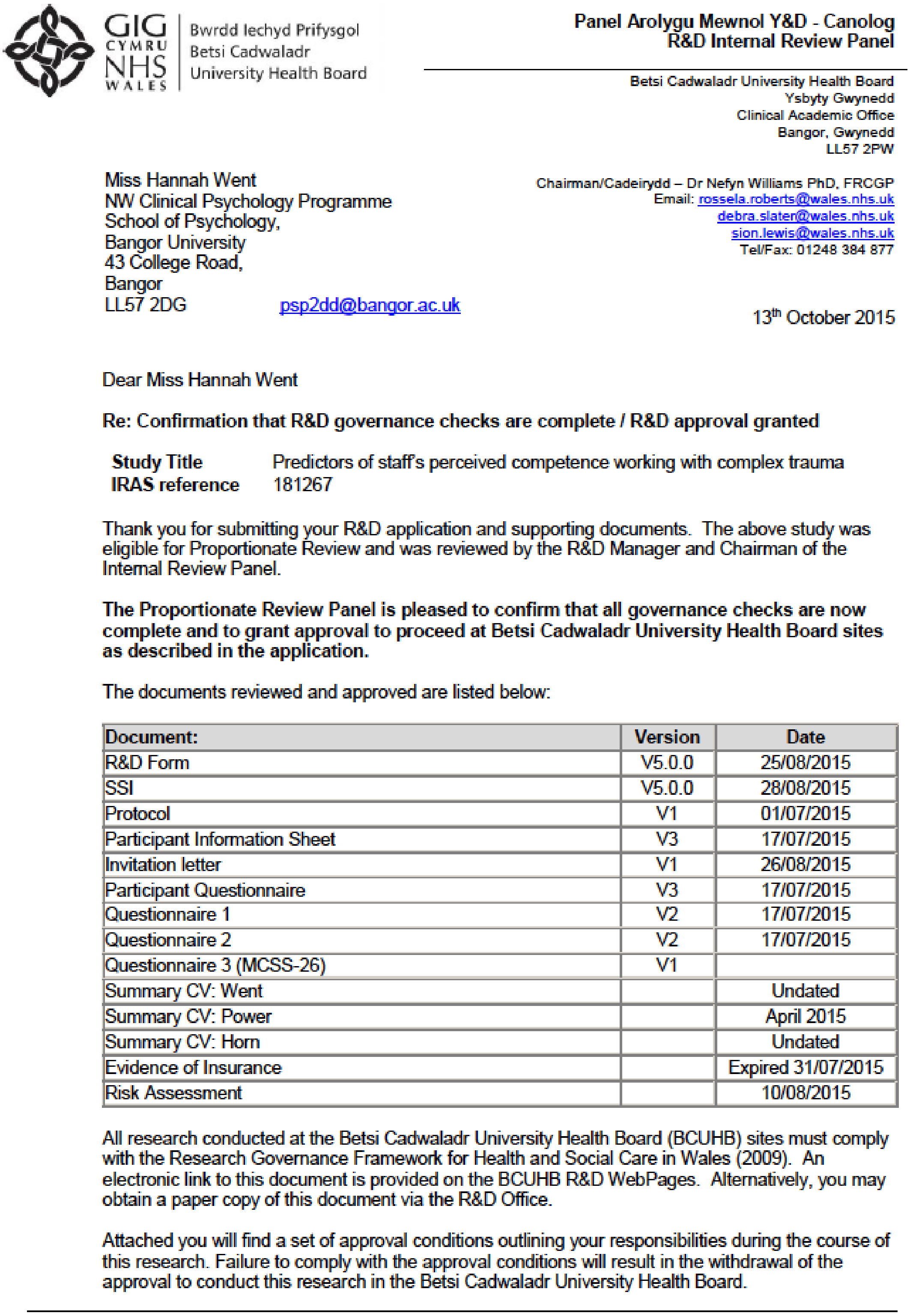
2015-15445 Training, experience, and perceived competence among clinicians working with complex trauma in adult mental health: the mediating role of knowledge

Your research proposal number 2015-15445 has been reviewed by the Psychology Ethics and Research Committee and the committee are now able to confirm ethical and governance approval for the above research on the basis described in the application form, protocol and supporting documentation. This approval lasts for a maximum of three years from this date.

Ethical approval is granted for the study as it was explicitly described in the application

If you wish to make any non-trivial modifications to the research project, please submit an amendment form to the committee, and copies of any of the original documents reviewed which have been altered as a result of the amendment. Please also inform the committee immediately if participants experience any unanticipated harm as a result of taking part in your research, or if any adverse reactions are reported in subsequent literature using the same technique elsewhere.

BCUHB R&D Approval Letter



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Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

Panel Arolygu Mewnol Y&D - Canolog
R&D Internal Review Panel

Betsi Cadwaladr University Health Board
Ysbyty Gwynedd
Clinical Academic Office
Bangor, Gwynedd
LL57 2PW

Chairman/Cadeirydd – Dr Nefyn Williams PhD, FRCGP
Email: rossela.roberts@wales.nhs.uk
debra.slater@wales.nhs.uk
sion.lewis@wales.nhs.uk
Tel/Fax: 01248 384 877

Miss Hannah Went
NW Clinical Psychology Programme
School of Psychology,
Bangor University
43 College Road,
Bangor
LL57 2DG psp2dd@bangor.ac.uk

13th October 2015

Dear Miss Hannah Went

Re: Confirmation that R&D governance checks are complete / R&D approval granted

Study Title	Predictors of staff's perceived competence working with complex trauma
IRAS reference	181267

Thank you for submitting your R&D application and supporting documents. The above study was eligible for Proportionate Review and was reviewed by the R&D Manager and Chairman of the Internal Review Panel.

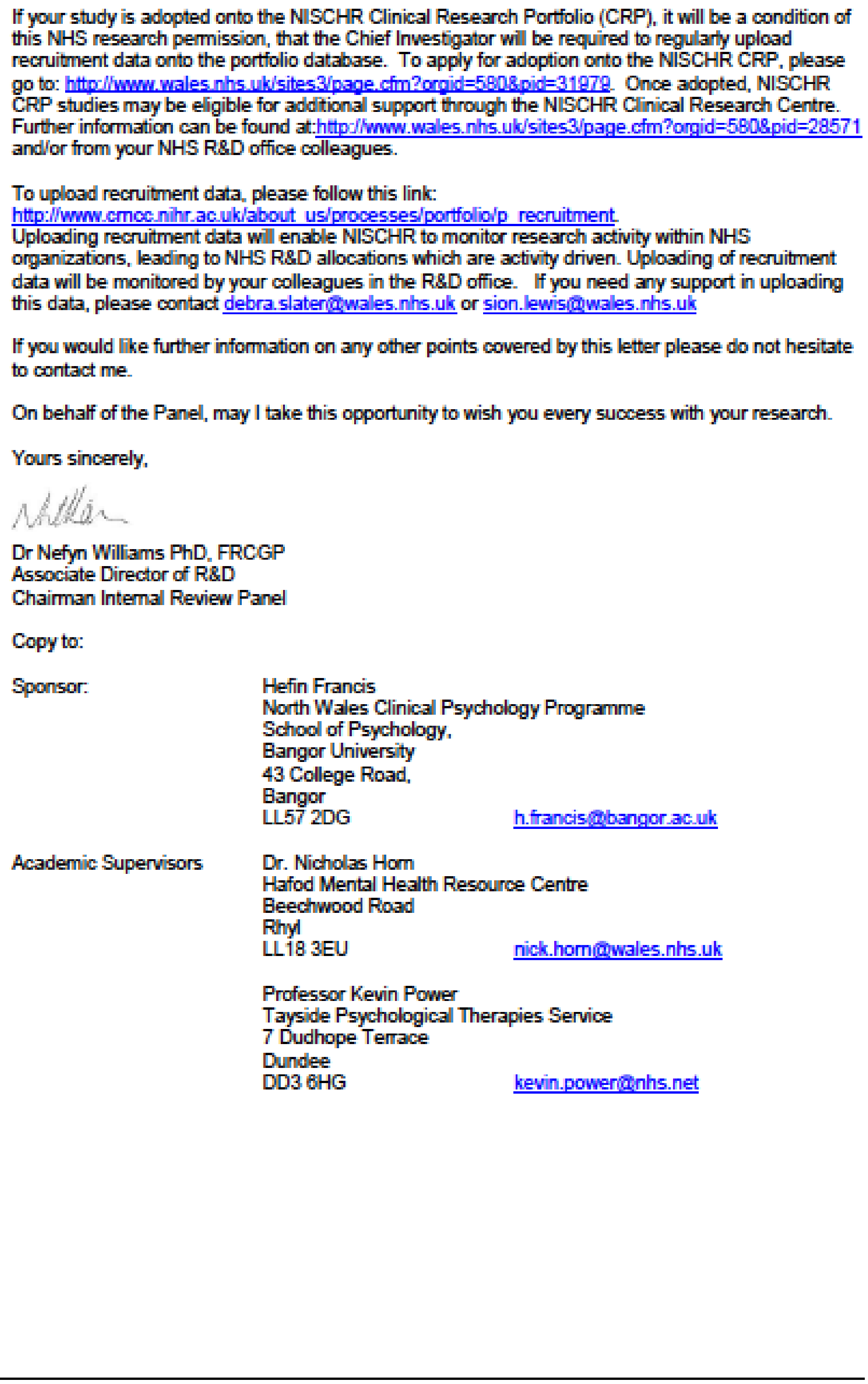
The Proportionate Review Panel is pleased to confirm that all governance checks are now complete and to grant approval to proceed at Betsi Cadwaladr University Health Board sites as described in the application.

The documents reviewed and approved are listed below:

Document:	Version	Date
R&D Form	V5.0.0	25/08/2015
SSI	V5.0.0	28/08/2015
Protocol	V1	01/07/2015
Participant Information Sheet	V3	17/07/2015
Invitation letter	V1	26/08/2015
Participant Questionnaire	V3	17/07/2015
Questionnaire 1	V2	17/07/2015
Questionnaire 2	V2	17/07/2015
Questionnaire 3 (MCSS-26)	V1	
Summary CV: Went		Undated
Summary CV: Power		April 2015
Summary CV: Horn		Undated
Evidence of Insurance		Expired 31/07/2015
Risk Assessment		10/08/2015

All research conducted at the Betsi Cadwaladr University Health Board (BCUHB) sites must comply with the Research Governance Framework for Health and Social Care in Wales (2009). An electronic link to this document is provided on the BCUHB R&D WebPages. Alternatively, you may obtain a paper copy of this document via the R&D Office.

Attached you will find a set of approval conditions outlining your responsibilities during the course of this research. Failure to comply with the approval conditions will result in the withdrawal of the approval to conduct this research in the Betsi Cadwaladr University Health Board.



If your study is adopted onto the NISCHR Clinical Research Portfolio (CRP), it will be a condition of this NHS research permission, that the Chief Investigator will be required to regularly upload recruitment data onto the portfolio database. To apply for adoption onto the NISCHR CRP, please go to: http://www.wales.nhs.uk/sites3/page.cfm?orgid=580&pid=31979. Once adopted, NISCHR CRP studies may be eligible for additional support through the NISCHR Clinical Research Centre. Further information can be found at:http://www.wales.nhs.uk/sites3/page.cfm?orgid=580&pid=28571 and/or from your NHS R&D office colleagues.

To upload recruitment data, please follow this link:
http://www.crncc.nihr.ac.uk/about_us/processes/portfolio/p_recruitment.
Uploading recruitment data will enable NISCHR to monitor research activity within NHS organizations, leading to NHS R&D allocations which are activity driven. Uploading of recruitment data will be monitored by your colleagues in the R&D office. If you need any support in uploading this data, please contact debra.slater@wales.nhs.uk or sion.lewis@wales.nhs.uk

If you would like further information on any other points covered by this letter please do not hesitate to contact me.

On behalf of the Panel, may I take this opportunity to wish you every success with your research.

Yours sincerely,

Dr Nefyn Williams PhD, FRCGP
Associate Director of R&D
Chairman Internal Review Panel

Copy to:

Sponsor:
Hefin Francis
North Wales Clinical Psychology Programme
School of Psychology,
Bangor University
43 College Road,
Bangor
LL57 2DG h.francis@bangor.ac.uk

Academic Supervisors
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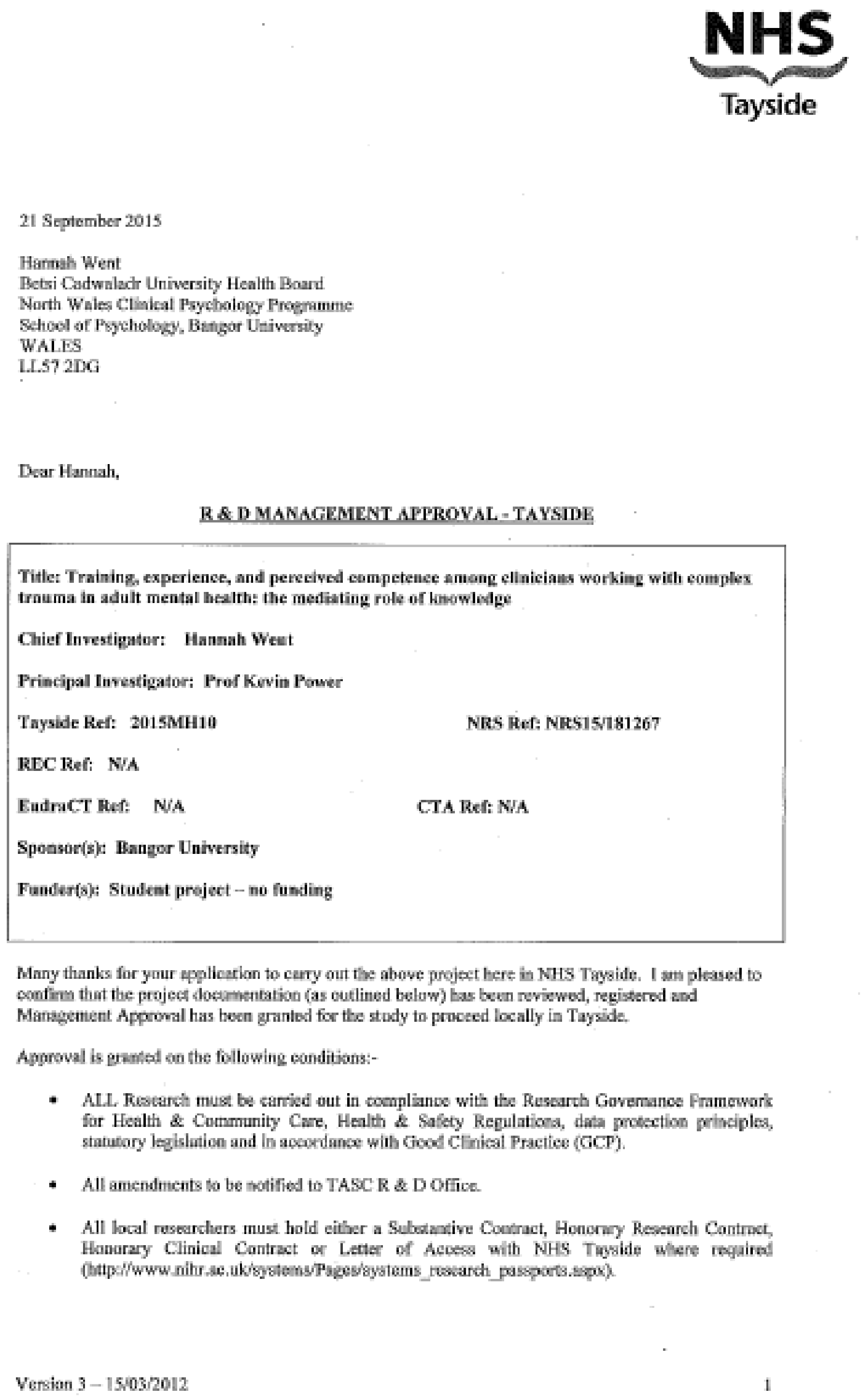
LL18 3EU nick.horn@wales.nhs.uk

Professor Kevin Power
Tayside Psychological Therapies Service
7 Dudhope Terrace
Dundee
DD3 6HG kevin.power@nhs.net

NHS Tayside R&D Approval



NHS
Tayside

21 September 2015

Hannah Went
Betsi Cadwaladr University Health Board
North Wales Clinical Psychology Programme
School of Psychology, Bangor University
WALES
LL57 2DG

Dear Hannah,

R & D MANAGEMENT APPROVAL - TAYSIDE

Title: Training, experience, and perceived competence among clinicians working with complex trauma in adult mental health: the mediating role of knowledge

Chief Investigator: Hannah Went

Principal Investigator: Prof Kevin Power

Tayside Ref: 2015MH10 **NRS Ref: NRS15/181267**

REC Ref: N/A

EudraCT Ref: N/A **CTA Ref: N/A**

Sponsor(s): Bangor University

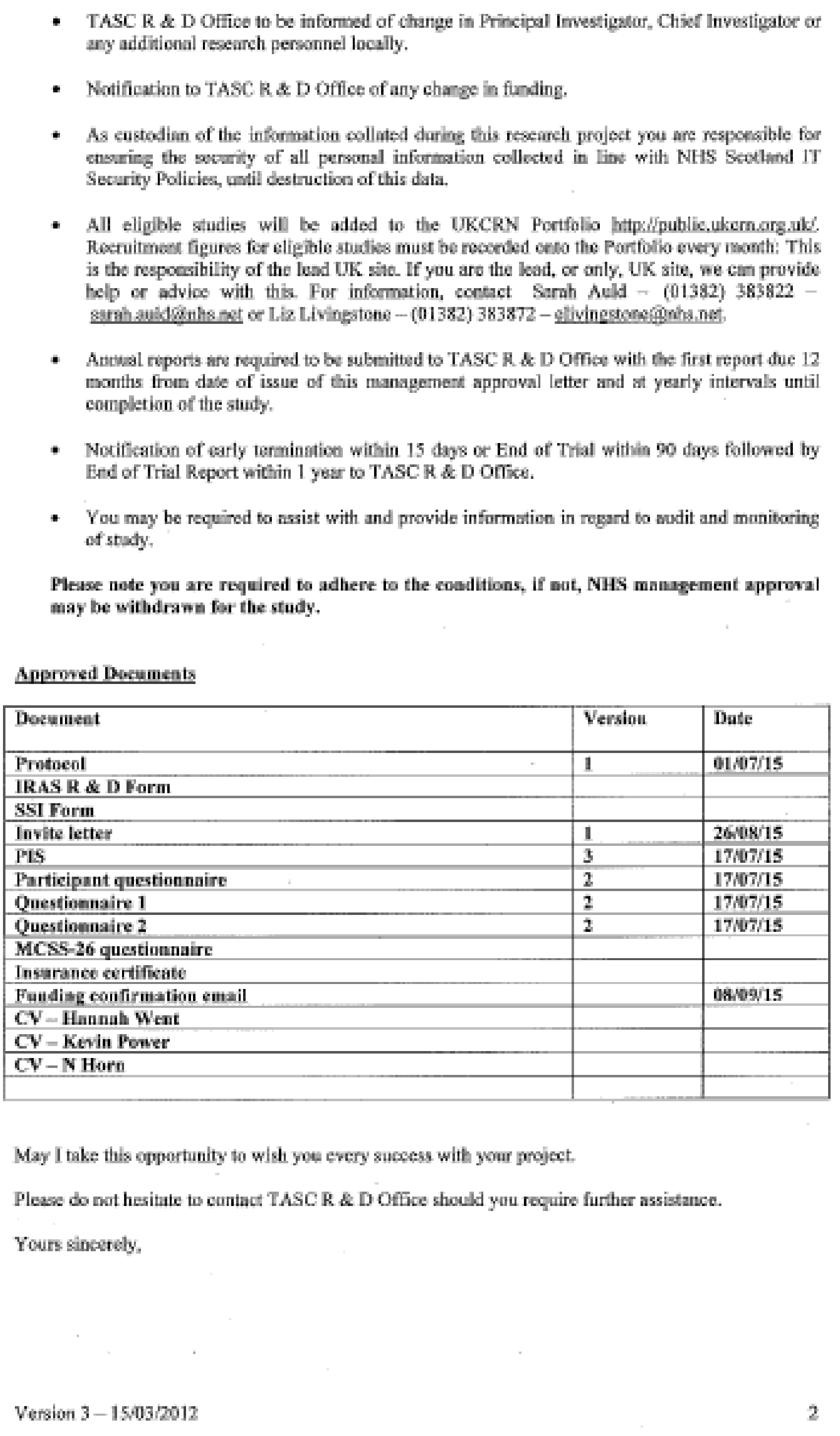
Funder(s): Student project – no funding

Many thanks for your application to carry out the above project here in NHS Tayside. I am pleased to confirm that the project documentation (as outlined below) has been reviewed, registered and Management Approval has been granted for the study to proceed locally in Tayside.

Approval is granted on the following conditions:-

- ALL Research must be carried out in compliance with the Research Governance Framework for Health & Community Care, Health & Safety Regulations, data protection principles, statutory legislation and in accordance with Good Clinical Practice (GCP).
- All amendments to be notified to TASC R & D Office.
- All local researchers must hold either a Substantive Contract, Honorary Research Contract, Honorary Clinical Contract or Letter of Access with NHS Tayside where required (http://www.nihr.ac.uk/systems/Pages/systems_research_passports.aspx).

Version 3 – 15/03/2012 1



- TASC R & D Office to be informed of change in Principal Investigator, Chief Investigator or any additional research personnel locally.
- Notification to TASC R & D Office of any change in funding.
- As custodian of the information collated during this research project you are responsible for ensuring the security of all personal information collected in line with NHS Scotland IT Security Policies, until destruction of this data.
- All eligible studies will be added to the UKCRN Portfolio http://public.ukcrn.org.uk/. Recruitment figures for eligible studies must be recorded onto the Portfolio every month: This is the responsibility of the lead UK site. If you are the lead, or only, UK site, we can provide help or advice with this. For information, contact Sarah Auld – (01382) 383822 – sarah.auld@nhs.net or Liz Livingstone – (01382) 383872 – elivingstone@nhs.net.
- Annual reports are required to be submitted to TASC R & D Office with the first report due 12 months from date of issue of this management approval letter and at yearly intervals until completion of the study.
- Notification of early termination within 15 days or End of Trial within 90 days followed by End of Trial Report within 1 year to TASC R & D Office.
- You may be required to assist with and provide information in regard to audit and monitoring of study.

Please note you are required to adhere to the conditions, if not, NHS management approval may be withdrawn for the study.

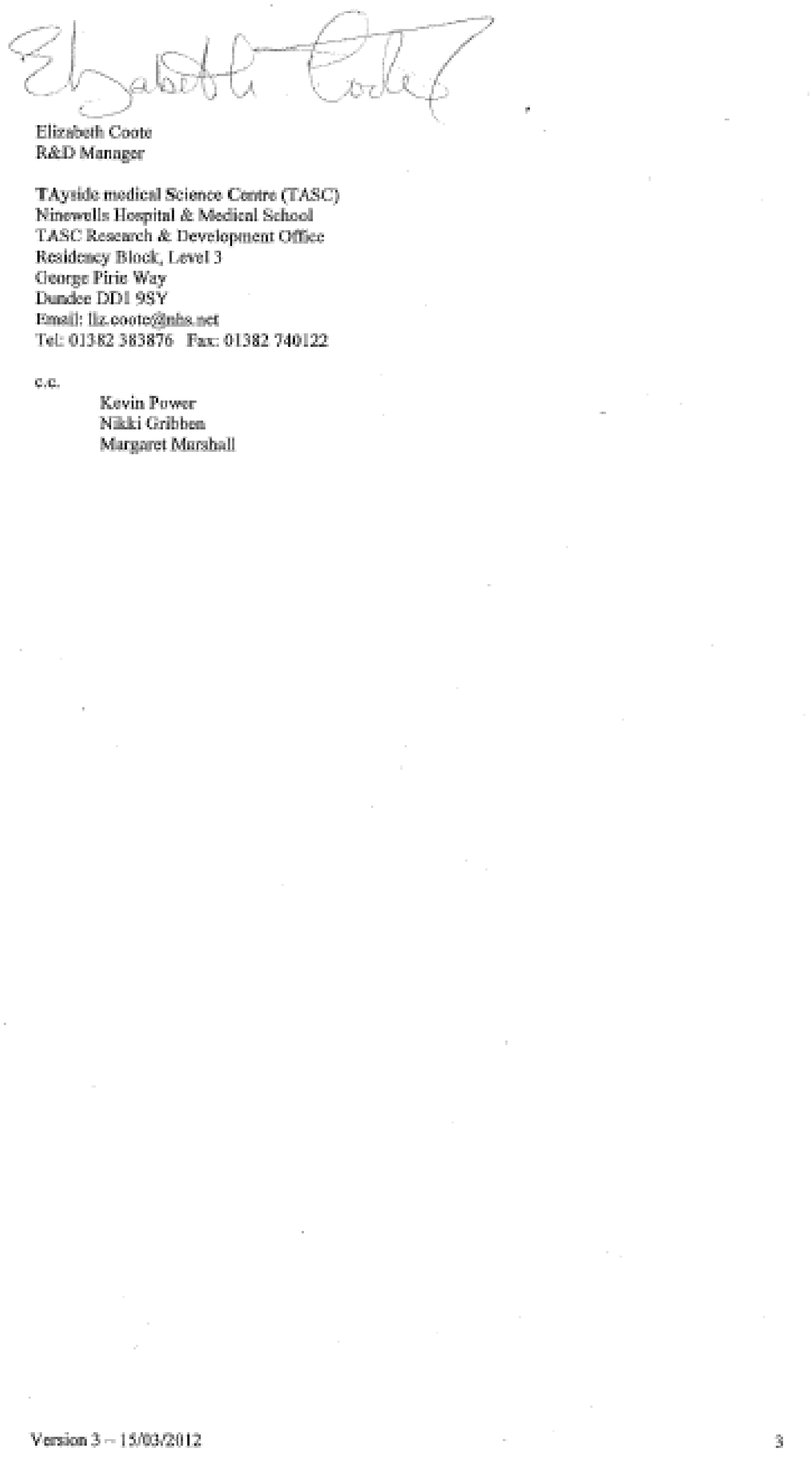
Approved Documents

Document	**Version**	**Date**
Protocol	**1**	**01/07/15**
IRAS R & D Form		
SSI Form		
Invite letter	**1**	**26/08/15**
PIS	**3**	**17/07/15**
Participant questionnaire	**2**	**17/07/15**
Questionnaire 1	**2**	**17/07/15**
Questionnaire 2	**2**	**17/07/15**
MCSS-26 questionnaire		
Insurance certificate		
Funding confirmation email		**08/09/15**
CV – Hannah Went		
CV – Kevin Power		
CV – N Horn		

May I take this opportunity to wish you every success with your project.

Please do not hesitate to contact TASC R & D Office should you require further assistance.

Yours sincerely,



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Section Six: Word Count

Word Count Statement

Thesis Component	
Title	37
Thesis Abstract	243

Literature Review	
Word count without references	4792
Word count with references	6988
Tables Figures and Appendices	1893

Empirical Study	
Word count without references	4778
Word count with references	5883
Tables, Figures and Appendices	993

Contributions to Theory and Clinical Practice	
Word count without references	3598
Word count with references	4862

Total thesis word count	
Word count without references	13448
Word count with references	18013
Total of Tables, Figures and Appendices	2886