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The assessment of complex trauma symptoms in adults: A systematic review

and

Exploring consensus in best practice when working with trauma in male populations detained in secure forensic mental health settings: A Delphi study

Canan Bektas

Submitted in part fulfilment of the degree of
Doctorate in Clinical Psychology
The University of Edinburgh
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DCLINPSYCHOL DECLARATION OF OWN WORK

Name: Canan Bektas

Title of Work: The assessment of complex trauma symptoms in adults: A systematic review

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Exploring consensus in best practice when working with trauma in male populations detained in secure forensic mental health settings: A Delphi study

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Finally, I would like to convey my gratitude to my family and friends for their loving support and encouragement throughout this process.

THESIS PORTFOLIO OVERVIEW

This thesis is completed in accordance with the academic component, in part fulfilment, of the Doctorate in Clinical Psychology at the University of Edinburgh. Following the research portfolio structure, a thesis abstract is presented. This is followed by a lay summary of the background, methods, results and conclusion sections of the presented projects. Chapter One illustrates a systematic review which examines instruments that assess *complex trauma* related symptoms in adult populations. Chapter Two describes an empirical study exploring what a *best practice* framework may entail when working with male populations detained in secure forensic mental health hospital settings. The reporting of the empirical study and the systematic review have been prepared for submission to the International Journal of Forensic Mental Health and the Journal of Trauma & Dissociation, respectively. The reporting format of both projects has followed the journal author guidelines, a summary of which has been included in Appendix F.

Word Count (references and appendices excluded)

Systematic Review: 10,885

Empirical Study: 14,447

Total Thesis Portfolio: 40,720

THESIS PORTFOLIO ABSTRACT

Background: Exposure to adverse experiences, particularly those considered more repetitive and enduring (such as sexual abuse and neglect) has been associated to negative mental health outcomes including *complex trauma*. Though assessment tools to capture complex trauma-related symptomology have been developed, a systematic review of these measures does not appear to have been completed. Furthermore, researchers have argued for the better detection and intervention of trauma-related presentations in male populations detained in secure forensic mental health settings. Improved awareness in this area is likely to help inform treatment and rehabilitation delivery for this population.

Method: A systematic review critically appraised the methodological and psychometric features of instruments assessing a range of complex trauma-related symptoms. The empirical study attempted to explore how such features may be understood, detected and responded to in clinical settings. Using a Delphi process, the empirical study investigated consensus among practitioner psychologists in the United Kingdom with expertise in working with male populations detained in secure forensic mental health settings. Through an online survey format, the study involved three rounds of data collection to assess consensus on what a *best practice* framework may entail when detecting and working with trauma in this population. Data from the open-ended questions in Round I was assessed using qualitative analysis. This generated a number of statements upon which consensus was explored; the respondents were required to rate their agreement with the statements in Round II and III of the survey.

Results: The instruments identified from the systematic review, measuring complex trauma-related symptomology, had been subjected to some degree of evaluation regarding their validity and reliability. Views of the psychologists in the empirical study indicated consensus regarding several elements that may be considered best practice in relation to working with trauma in male populations detained in secure forensic mental health settings. These related to: a range of presentations that may indicate the need for a trauma assessment; trauma-related intervention goals in light of both mental health and criminogenic needs; training and guideline recommendations. The results also indicated however, more varied views about the theoretical models that underpinned their clinical practice and the interventions employed.

Conclusion: From the systematic review, no measure was assessed to be better than the others at capturing complex trauma-related presentations, though the purpose of its use is likely to impact why one would be preferable to another (e.g. screening versus outcome monitoring). Interestingly, the more recently published measures appear to have been developed for diagnostic requirements. The empirical study identified several considerations for a best practice framework in relation to working with trauma in male populations detained in secure forensic mental health settings. Further exploration and guidance for implementing trauma-specific interventions in these settings, with individuals presenting with multiple complex needs (e.g. including mental health and criminogenic), may be warranted.

THESIS LAY SUMMARY

Background: Exposure to adverse life experiences has been associated to mental health difficulties including *complex trauma*. Though questionnaires to assess complex trauma have been developed, a review of these has not been completed. It has also been argued that assessing trauma in male populations detained in forensic mental health hospitals can be improved. Understanding how health professionals detect and respond to trauma in this population can help make treatment planning more effective.

Method: A systematic search of published research was firstly carried out. This identified a number of questionnaires that assessed complex trauma-related symptoms. The review looked at how well these questionnaires had been tested to see if they could reliably measure complex trauma symptoms. The second part of this thesis looked at the opinions of psychologists in the United Kingdom with experience of working with male populations in secure forensic mental health hospital settings. The aim was to see how psychologists understood and responded to trauma in this population and what the best way of working with this population might be. A three-round online survey was completed. The psychologists taking part in the study were asked to write their opinions about things that made it either easier or more difficult to assess and work with trauma in this population. From their responses, a number of statements were identified. The psychologists were then instructed to rate how much they agreed with each statement.

Results: All of the questionnaires identified by the search process had been tested to some extent to see how well they assessed complex trauma-related symptoms. No questionnaire

was found to be better than the others at assessing complex trauma-related symptoms, though the measures indicated different intended purposes (e.g. screening for symptoms at one point in time; monitoring symptoms over a longer timeframe). The opinions of the psychologists taking part in the empirical study indicated that they agreed about a number of elements that could be considered effective when working with trauma in male populations detained in secure forensic mental health hospitals. These related to: what might lead to a trauma assessment; the trauma-related treatment goals that consider both mental health and offending needs; recommendations about training and guidelines. Different opinions were seen however, about the theories the psychologists used in their work and the type of psychological therapy they were likely to offer.

Conclusion: A number of questionnaires were identified from the systematic review. The reasons for needing to use a questionnaire was found to impact why one would be chosen over another (e.g. trauma screening versus monitoring symptoms over a longer timeframe). The more recently published questionnaires appear to have been developed for diagnostic reasons. The empirical study identified a number of points that may be helpful for psychologists when working with trauma in male populations detained in secure mental health hospitals. Further research and guidance around trauma-specific treatment in these settings, particularly for people with multiple treatment needs (e.g. mental health and risk needs), may be helpful.

CHAPTER 1

SYSTEMATIC REVIEW ARTICLE

Title: The assessment of complex trauma symptoms in adults: A systematic review

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Dr Louise Tansey[3], Clinical Psychologist, NHS Lothian
Rachael Stabler[4], Assistant Psychologist, NHS Lothian

Abstract

Exposure to enduring, repetitive and difficult-to-escape forms of abuse has been linked to an array of mental health difficulties including *complex trauma*. Though assessment tools to capture the phenomenon have been developed, a systematic exploration of complex trauma measures has not been completed. Using the checklist described by Francis, McPheeters, Noud, Penson and Feurer (2016), this review critically explored the methodological and psychometric features of available instruments assessing complex trauma-related symptomology/disorder. The results indicate a number of instruments developed for different purposes that can be used across settings. The more recently developed instruments appear to have emerged from diagnostic-related requirements.

Keywords: Complex trauma, systematic review, measures, adults

1. INTRODUCTION

Exposure to adverse experiences, particularly those considered to be repetitive and difficult to escape (e.g. childhood physical abuse), has been observed to disrupt developmental processes triggering a severe stress-response that can be pervasive and long-lasting (van der Kolk, 2014). Such observations have led to the conceptualisation of *complex trauma* (Terr, 1991; Herman, 1992; Courtois, 2004) and the development of assessment tools to capture the phenomenon. Complicating the use of the term, however, is that complex trauma within the literature appear to refer interchangeably to its two distinct yet related features: exposure to adverse experience(s) and the symptomology that might emerge as a consequence (Kliethermes, Schacht & Drewry, 2014). The lack of consensus on an exact definition of complex trauma has meant varying components are emphasised by different researchers (e.g. type of adverse experience; different symptom profiles, diagnoses; Weathers & Keane, 2007). For the purpose of this systematic review, assessment tools developed to measure complex trauma-related symptomology and/or disorders in adult populations will be explored. The intention of this review was to examine empirical findings in their broadest sense as relevant to the assessment of complex trauma. However, trauma-related diagnostic frameworks continue to evolve and be extensively investigated and debated (e.g. see Hyland et al., 2017; Resick et al., 2013; Rosen & Frueh, 2007). Part of the literature review here, therefore, encompasses an exploration of relevant diagnoses and assessment tools developed to capture them.

1.1 Adverse experiences

Adverse experiences considered to have been "...physically or emotionally harmful or life threatening…" (Substance Abuse and Mental Health Services Administration, SAMHSA, 2014) are considered *traumatic* in instances where they can overwhelm a person's ability to cope and can trigger strong emotions such as fear or terror (Herman, 1992). A wide range of events have been identified that can potentially trigger these types of responses. In an attempt at classification, Terr (1991) identified two categories. The first, type 1, includes single incidences, sometimes referred to as *acute* traumatic experiences or stressors, such as rape and assault. The second, type 2 or complex trauma, includes the more enduring, repetitive, difficult-to-escape forms of adverse experiences, which tend to be more interpersonal in nature (e.g. sexual abuse; domestic abuse; neglect or separation during developmentally sensitive periods). The criteria for experiences considered to potentially be able to trigger trauma-related responses, continue, to be investigated (e.g. trauma reactions resulting from medical procedures; O'Garo et al., 2019).

1.2 Adverse experiences and psychopathology

Exposure to adverse experiences has been indicated as a risk factor in adult psychopathology (Carr, Martins, Stingel, Lemgruber & Juruena, 2013). Variability in responses and the description of symptoms or the disorders most likely to emerge have been extensively debated (e.g. see Ford & Courtois, 2009; Hyland et al., 2017; Liddle, Boswell, Wright, Francis & Perry, 2016; Briere & Spinazzola, 2009). The outcomes observed for type 1 related experiences were found to be distinct from those that resulted from the more complex, type 2 experiences (Herman, 1992; Ford & Courtois, 2009; van der Kolk, 2014). The type and number of adverse experiences have been found to impact the severity of symptoms and is

referred to as the *dose effect* (Shevlin, Houston, Dorahy & Adamson, 2008); such findings are argued to add weight to the construct validity of a distinct complex response (Hyland et al., 2017). Several other factors have also been found to impact trauma responses, for example, the duration, developmental stage and age at which the adverse experience(s) occurred (van der Kolk et al., 2005), the support received at the time of disclosure/discovery (Courtois, 2004), as well as individual differences (e.g. sympathetic nervous system activity; Morris & Rao, 2013) and environmental variables (e.g. socioeconomic factors; Enlow, Blood & Egeland, 2013).

One of the most widely discussed trauma diagnoses is post-traumatic stress disorder (PTSD; Diagnostic and Statistical Manual of Mental Disorders, DSM, American Psychiatric Association, APA, 5th iteration, 2013, first included in the 3rd DSM publication, 1980; International Classification of Disease, 10th publication, ICD 10, World Health Organisation, WHO, 1994). PTSD broadly includes symptom clusters associated with re-experiencing (e.g. flashbacks), symptoms associated with arousal and reactivity, negative cognitions and mood, avoidance and functional impairment. PTSD has been associated with the more type 1 related experiences (Herman, 1992; van der Kolk, 2014). Exposure to complex trauma-related experiences can result in varying outcomes and may not fit into a single syndrome or diagnostic framework, though it has been found to include PTSD symptoms (Briere & Spinazzola, 2009; Herman, 1992). Herman (1992), summarising the data, reported impairments in several additional domains to those assessed by the PTSD diagnostic criteria: behavioural, emotional and impulse dysregulation (e.g. van der Kolk, 1996); cognitive alterations (e.g. changes to perception of others, self-perception, systems of meaning; Moore, 2009); attentional deficits (e.g. dissociation; van der Kolk, 1996); interpersonal

relationships (e.g. Huh, Kim, Yu & Chae, 2014); *somatisation* (e.g. Elklit & Christiansen, 2009). Some of these features have been broadly conceptualised as *disturbances in self-organisation* (DSO), considered to reflect difficulties relating to three symptom clusters described by Maercker et al. (2013) as (1) negative self-concepts, (2) affective dysregulation and (3) disturbances in relationships.

The observation of complex responses (i.e. DSO related features) in addition to PTSD symptomology, led Herman (1992) to propose the complex PTSD diagnosis. Following a review by the DSM working group, the proposal for complex PTSD as a separate diagnosis was not accepted in its fifth publication as the authors did not feel there was enough evidence at that time to suggest complex PTSD was a distinct disorder from PTSD, the lack of validated measures to assess the disorder and the limited research regarding treatment recommendations (Resick et al., 2013). Instead the authors expanded the PTSD symptom clusters from the earlier versions, which was proposed to account for the more complex presentations (Resick et al., 2013). Galatzer-Levy and Bryant (2013) have argued that the expansion to the PTSD diagnosis in the DSM (2013) has however, meant the diagnosis can be based on over 600,000 different combination of symptoms. The working group of the ICD however, restructured their PTSD criteria and added the new diagnosis of complex PTSD, which is to be included in the ICD 11 (WHO 2018, due to be publicly available in 2020). For a complex PTSD diagnosis, in addition to the PTSD criteria, a cluster of symptoms is required to reflect DSO (Brewin et al., 2017). DSO is argued to make complex PTSD conceptually distinguishable from PTSD (Cloitre, Garvert, Brewin, Bryant & Maercker, 2013). Furthermore, Maercker et al. (2013) have argued the new diagnosis will decrease co-morbidity and improve discriminant validity. PTSD and complex PTSD features, though highly correlated, have been

found by some authors to be distinct disorders (e.g. van der Klok, Roth, Pelcovitz, Sunday & Spinazzola, 2005; Berwin et al., 2017; Litvin et al., 2017).

In earlier publications of the DSM and ICD, the working diagnoses of disorders of extreme stress not otherwise specified (DESNOS; DSM-4, 1994; Pelcovitz et al., 1997) and personality change from catastrophic experience (ICD 10, 1994), were used to capture the complex trauma-related presentations documented in the literature (Courtois, 2004). Van der Klok et al. (2005) observed high rates of comorbidity between PTSD and DESNOS and noted DESNOS occurred along with PTSD symptoms, not necessarily as separate clusters. In contrast, Ford (1999) reported DESNOS in the absence of PTSD, which led the author to suggest that despite the overlap, the disorders were distinct and had different symptom presentations, resulted in different types of functional impairment and could occur independently. Emerging data from research with young people, including children, thought to have been exposed to type 2 experiences, have led to the conceptualisation and proposal of developmental trauma disorder (DTD; van der Klok, 2005). Researchers in support of DTD argue the term attempts to capture presentations associated with complex trauma outcomes in children and young people who may present as *asymptomatic* for PTSD or not meet the diagnostic threshold (van der Klok et al., 2009). Cloitre, Garvert, Weiss, Carlson and Bryant (2014) have argued that the variable and inconsistent conceptualisation of complex PTSD within the literature has complicated research findings.

DSM-5 and ICD 11 both hold the central requirement of a traumatic event for the PTSD diagnosis (Karatzia et al., 2016). For the ICD 11, it has been reported that the adverse experience/trauma type is viewed as a risk factor and not a requirement to differentiate

between the PTSD and complex PTSD diagnoses (Karatzia et al., 2016; Hyland et al., 2017). The ICD 11 does however, provide suggestions for instances where trauma memories may not be apparent (i.e. increased requirement of the number of overall symptoms for some clusters; Hyland et al., 2017). Emphasis on aetiology in PTSD has been argued to deviate from the descriptive nature of current diagnostic systems (Maercker el al., 2013). Challenges to the central placement of the adverse experience in the diagnostic process has been on-going (e.g. *the Criterion A problem* – the requirement of a stressor in the DSM; Weathers & Keane, 2007). Variability of adverse experiences, particularly continuum-based factors (e.g. severity, frequency, type) however, make it difficult to set clear boundaries separating the so-called ordinary from the traumatic experiences (Weathers & Keane, 2007). The criteria used in the DSM has been criticised for potentially medicalising normal stress responses (Craddock & Mynors, 2014). The requirement of the subjective appraisal of an event as stressful also renders it difficult to define objectively (Weathers & Keane, 2007). Furthermore, high rates of undisclosed, delayed or minimised disclosure of adverse experiences, particularly those relevant to the more type 2 experiences, have been noted in the literature (e.g. Sinclair & Gold, 1997; Hebert, Tourigny, Mireille, McDuff & Joy, 2009; Smyth, Hockemeyer, Heron, Wonderlich, & Pennebaker, 2008). Evaluating trauma-related symptomology may, therefore, be more crucial in clinical settings.

High rates of trauma histories and symptom overlap has been observed in other psychiatric disorders (Hughes, Lowey, Quigg & Bellis, 2016; Pirkola et al., 2005). Courtois (2004) summarising the research, using factor analysis observed that complex reactions, although post-traumatic in nature, were often categorised as comorbid conditions rather than elements of complicated posttraumatic adaptation. High rates of adverse experience

histories, and the phenomenological and conceptual overlap between features of complex trauma, particularly the DSO features and borderline personality disorder (BPD) have also been reported (Herman 1992; for a review see Ford & Courtois, 2014). This observation led to the debate for BPD to be reconceptualised as a complex trauma related disorder (Herman 1992; van der Kolk, Hostetler, Herron, & Fisler, 1994) and the proposal for a trauma-spectrum framework (Herman, 1992; Lewis & Grenyer, 2009; Giourou et al., 2018). In their study, Cloitre et al. (2014), using latent class analysis, observed data that supported the view that complex PTSD was distinct from both PTSD and BPD, though they can be co-morbid conditions (Giourou et al., 2018).

1.3 Aims of the current systematic review

The accurate detection of trauma related presentations is crucial in research and clinical practice. Validated assessment tools and measures can be helpful to ensure efficient and effective detection of such presentations (White, Jellinek & Murphy, 2010). Though numerous factors have meant that a consistent conceptualisation of complex trauma within the literature has been lacking (e.g. see Cloitre et al., 2014), a number of measures have been developed to capture its various features. A recent systematic review by Saini, Hoffmann, Pantelis, Everall and Bousman (2019) explored standardised retrospective measures that assess adverse experiences associated with childhood abuse. A particular aim of the review was to focus on the sensitivity of the measures to detect the more type 2 associated experiences (i.e. experiences that were sustained, repeated and/or occurred during developmentally sensitive periods); they excluded instruments that screened for trauma-related symptomology and/or disorders. Their results indicated that from the measures they reviewed, no particular instrument was rated better than the others at retrospectively

assessing adverse experiences and they found there to be a limited number of measurement tools assessing the impact of childhood abuse (Saini et al., 2019).

Brewin (2005) conducted a review exploring instruments assessing PTSD but did not specify the assessment of complex trauma symptomology. Given the heterogeneity of the more complex trauma related presentations, an assessment of just PTSD has been argued to unlikely be sufficient (Briere & Spinazzola, 2009). A recent systematic review by Denton et al., (2017) explored measures of complex developmental trauma as relevant to children and young people, which excluded instruments assessing adult populations. The authors concluded that most of the measures they reviewed required further assessment and validation, and they were therefore, restricted in the measures they could recommend (Denton et al., 2017). Shevlin et al. (2018) acknowledging the gap in the literature, appeared to be the first to systematically evaluate items on a scale that aimed to measure DSO (i.e. International Trauma Questionnaire, Cloitre et al., 2018). From their analysis, the authors concluded the measure performed well at assessing DSO related symptom clusters (Shevlin et al., 2018). Despite the emergence of relevant measures, gaps remain; evaluation of instruments designed to capture complex trauma-related symptomology and/or disorders in adult populations appear to be lacking. The current review therefore, intended to conduct a systematic evaluation of measures assessing complex trauma-related symptomology and/or disorders. A particular aim of the review was to establish an overview of the available measures and to systematically review and compare their measurement properties and standard of reporting. The checklist tool by Francis, McPheeters, Noud, Penson and Feurer (2016) was used in the evaluation process. The checklist had been developed in an attempt

to operationalise measurement characteristics and an evaluation criteria to aid the assessment process in systematic reviews (Francis et al, 2016; Rosenkoetter & Tate, 2017).

2. MATERIALS AND METHOD

2.1. Definition of complex trauma

This review focused on instruments assessing complex trauma-related symptomology, defined according to the different features that have been emphasised in the literature; broadly conceptualised as *disturbances in self-organisation* (DSO), relating to the three symptom clusters of: (1) affective dysregulation; (2) negative self-concepts; (3) disturbances in relationships (Maercker el al., 2013; see also Herman, 1992; Pelcovitz et al., 1997). Given empirical and diagnostic developments, complex PTSD (ICD 11, WHO, 2018; Brewin et al., 2017) was also included as a search term. The methodology adopted in this study was an adaptation of those described by Denton et al., (2017) and Saini et al., (2019).

2.2. Search method

The Database of Abstracts of Reviews of Effects (DARE), PROSPERO and the Cochrane Database of Systematic Reviews were searched for reviews assessing this or a related domain. The *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA; Moher, Liberati, Tetzlaff & Altman 2009) was followed. A systematic search of relevant electronic databases was conducted. This included PsycINFO, Ovid MEDLINE and PsycARTICLES. The keywords used to conduct the searches included the following words: (self-report OR measure* OR instrument OR observation OR questionnaire OR checklist) OR (evaluate OR

assess* OR validity OR standardisation OR reliability) AND (complex trauma OR complex PTSD OR complex post traumatic* OR disturbances of self-organisation OR affective dysregulation OR cognitive attentional deficits OR alterations in self-concepts OR disturbances in relationships) AND (adults). The search was restricted to articles published until May 2019 and information that was available in English or could be translated to English. The electronic referencing software, Endnote X9 (Clarivate Analytics, 2019) was used in the screening process and to categorise the abstracts and full articles.

2.3. Extraction of data

Only measures relevant to adult populations were included. Instruments assessing current or retrospective traumatic/adverse experiences were not assessed and were excluded. In line with the methodology of Saini et al's (2019) review of retrospective measures of childhood abuse and Denton et al's (2017) review exploring measures of developmental trauma in children and adolescence, both interview-based and self-report instruments were also included in the current review. The bibliographies of the included papers were also screened. The lead researcher and a second reviewer (RS) screened the titles and abstracts of the papers identified by the search strategy. For the studies meeting the inclusion criteria (see Table 1), the full articles were accessed. Where available, study characteristics were extracted. These included: (1) title of the measure (2) author(s); (3) country in which the measures were evaluated; (4) format of administration; (5) the complex trauma elements measured; (6) population assessed and their characteristics (including mean age; gender); (7) target population; (8) response types; (9) number of items and instrument completion time; (10) range of scores/scoring; (11) original language and translations. The checklist described by Francis et al. (2016) was employed to review the psychometric and measurement properties

of the included instruments. The extracted data was checked by a second reviewer independently for accuracy and no discrepancies were observed.

Table 1: Inclusion Criteria

	Inclusion criteria	Exclusion criteria
Age	Adult populations	Children, young people under 18 years
Language	Information available in English	Information not available in English
Measuring	*Complex trauma* related features including complex PTSD; Disturbances of self-organisation; cognitive attentional deficits; affective dysregulation; alterations in self-concepts; disturbances in relationships	Other *stress* related disorders/diagnoses e.g. adjustment disorder Measures assessing adverse/traumatic experiences Measures solely assessing a single subscale/feature e.g. disassociation Studies exploring trauma in individuals with intellectual disability

2.4. Evaluation criteria and reporting standard

Although the Francis et al. (2016) checklist was developed specifically to assess patient-reported outcome (PRO) measures, the evaluation criterion was considered to have a broader scope and was therefore employed in this study to assess both self-report and interview-based measures. In line with other assessment tools designed to evaluate patient-reported outcome measures (e.g. COnsensus-based Standards for the selection of health Measurement InstrumeNts; COSMIN; Mokkink et al., 2017), the recommendation that the criteria for other types of instruments (e.g. clinician led or diagnostic tools) may be adapted (e.g. responsiveness is less relevant for diagnostic tools; Mokkink et al., 2017), was adopted in this study.

The checklist by Francis et al. (2016) consist of six categories with a total of 18 items assessing the domains of: "*(1) conceptual model; 2. content validity; (3) reliability; (4) construct validity; (5) scoring and interpretation; (6) respondent burden and presentation*" (p3). The items are scored according to 1, to indicate *criterion met* or 0 for *criterion not met* (i.e. present/absent; Francis et al., 2016; see Table 2 for further information as relevant to each category). The lead author and the second reviewer rated the included studies independently. Cohen's Kappa coefficient was calculated and the inter-rater reliability score (k=0.57) was assessed as moderate (McHugh, 2012). For ratings with discrepancies, consensus was reached. The ratings refer to the primary studies and are presented in Table 5. Additional studies that assessed the validity of the measures were also included in the review and are also presented in Table 5.

Table 2: Summary of the criterion used in the 18-item checklist to operationalise instrument characteristics in patient-reported outcome measures as described by Francis et al. (2016)

Measurement Properties	**Summary of criterion; Rating: 0 = Criterion not met and 1 = Criterion met (i.e. absent/present)**
Conceptual model	3 items relating to: the construct measured, being specifically defined; whether there is a single scale or multiple subscales; specifying target populations
Content validity	3 items relating to: evidence the measure domain(s) are comprehensive and specific to the construct under assessment; as there are no statistical analysis available, this is assessed through qualitative criteria.
Reliability	2 items relating to: reliability testing (test-retest, internal consistency reliability etc.) and whether these indices are adequate (e.g., adequate $r \geq 0.70$; ideal $r \geq 0.80$ or otherwise explained).
Construct validity	4 items relating to: quantitative justification of single/multiple subscales (e.g. factor analysis), whether findings support expected associations with other relevant data (e.g. compared to other validated measures) and expected differences with known populations. A final consideration is whether the measure aims to assess change over time (e.g. test-retest reliability).
Scoring and interpretation	3 items relating to: the scoring (e.g. scaling to differentiate scores as to what they mean; e.g. definition of severity e.g. mild to severe) interpretability (i.e. how easily the scores can be understood as to their meaning) and how to manage missing data.
Respondent burden and presentation	3 items relating to: any burden placed on the respondent (or those administering) in the process of completing the measures (e.g. time, effort). Literacy level of the measures is reviewed. Transparency and access to the measures (e.g. publication) are also considered.

As quality of adequate reporting is increasingly being required (Rosenkoetter & Tate, 2017), this was assessed against the STROBE Statement which describes a checklist to indicate recommended reporting standards for observational studies (von Elm et al., 2007; see Table 3). The checklist was used to assess whether the studies included the STROBE recommendations or whether lower ratings obtained using the Francis et al. (2016) criteria were more a function of reporting. A summary of the reporting standard of the included publications is discussed in the results section.

Table 3: summary of criterion for reporting standard according to the STROBE Statement (von Elm et al., 2007)

Elements of report	**Suggested features for transparent and accurate reporting**
Title and Abstract	Informative; summative
Introduction	Background/rational/objectives
Method	Study design; setting; participants; variables; data sources/measurement; bias; study size; quantitative variables; statistical methods;
Results	Participants; descriptive data; outcome data; main results; other analyses
Discussion	Key results; limitations; interpretations; generalisability
Other information	Funding/conflict of interest

3. RESULTS

The search method identified a total of 1074 articles. The titles were screened and assessed for eligibility considering the inclusion and exclusion criteria. The process resulted in 29 studies representing eight measures that assessed *complex trauma* related symptomology (Figure 1). Studies where the instrument under question was used to investigate other factors (e.g. assessing the validity of the PTSD and complex PTSD diagnoses according to the ICD 11 descriptions, Hyland et al., 2017) were excluded as the main aim of the studies were not assessing the validation of the measure. Two of the studies (Dorr, Firus, Kramer & Benge, 2016; Dorr, Sack & Bengel, 2018) were published in German and were translated into English in order to be included in this review. The Francis et al. (2016) tool does not specify a

recommended format for reporting findings. The results section therefore, first provides an overview of the measures (Table 4) followed by an evaluation of the quality of the measures (Table 5). The text in the results section focus on the complex trauma symptoms assessed and the reliability and validity of the measures included in the review. A brief summary, as relevant to the reporting standard of the instruments are provided. Information regarding the gender and sample size of the participants included in the studies are presented in Tables 4 and 5. These elements will therefore not be discussed within the text of the results section.

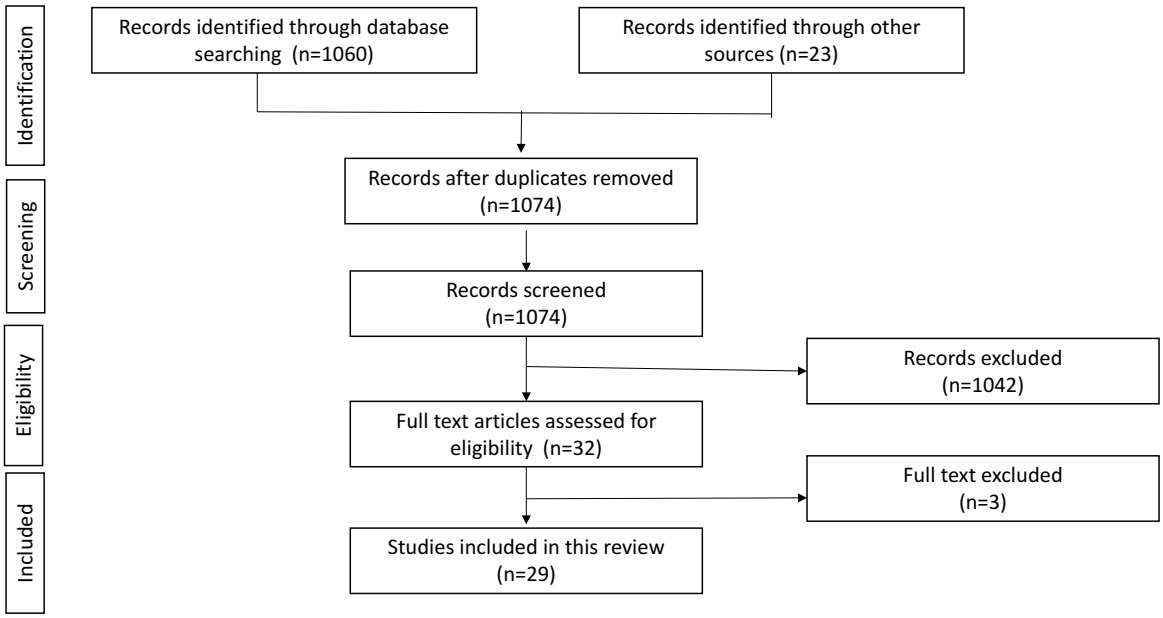

Figure 1. PRISMA flow chart demonstrating the studies selected

3.1. Characteristics of complex trauma measures

An overview of the instruments included in the review are presented in Table 4. Twenty-nine studies corresponding to eight measures were included in this review; five were self-report and two clinician/researcher led interview based (though one was also available in self-report

format). The measures assessed complex trauma associated symptoms and/or disorders (including PTSD, DSO and DENOS features). The evaluation of the instruments included sample sizes that ranged from 30 to 2963. The measures were evaluated predominantly using female participants, though there was some assessment of gender differences (e.g. Ford et al., 2017). The mean age ranged from 19.9 to 53.4 years. The number of items on the measures ranged from five (i.e. Palgi et al., 2017) to 136 (Briere, 2011). Two of the self-report (Dorr et al., 2016; Briere, 1995) and both interview-based measures reported approximate completion times (i.e. Ford et al., 2015; Pelcovitz et al., 1997). The development and psychometric assessment appeared to use both purposive (i.e. clinical populations) as well as convenience sampling approaches (e.g. online, undergraduates and community outpatient populations). The measures, all but two, were primarily developed in English and four of the measures had been translated and evaluated in at least one other language, while another measure was in the process of being translated (F. Dorr, personal communication, June 2019).

Table 4: Summary of the measures included; information extracted from the studies:

Measure	Primary authors	Additional studies which evaluated the measure	Construct description/Features assessed	Mode of administration and number of items	Original language/ Country developed	Cross cultural assessment/ translation
1) **The symptom of Trauma Scale** (SOTS)	Ford et al. (2015)	Ford et al. (2017)	Assessing 12 subscales of symptom severity associated to both PTSD (intrusive re-experiencing, hyperarousal, avoidance, emotional numbing) and complex PTSD (affect dysregulation, dissociation impulsivity, interpersonal relations, altered self-perceptions, somatic dysregulation, sexual relations/behaviour and sustaining beliefs)	Semi-structured interview; less than 30 mins; 12 symptom items rated on 7-point severity scale	English (United States)	
2) **The Complex Trauma Inventory** (CTI)	Litvin, Kaminski and Riggs (2017)		Six subscales assessing intensity and frequency of symptoms associated to: three subscales for PTSD (sense of threat; avoidance; re-experiencing) and three for DSO features (negative self-concept; affective dysregulation; disturbances in relationships)	Self-report; Initial 50 items reduced to 20; rated on a 5-point Likert scale	English (United States)	
3) **The Subjective Traumatic Outlook** (STO)	Palgi et al. (2017) (includes the reporting of 5 studies)	Mahat-Shamir et al. (2019)	Assesses subjective symptom severity of psychological trauma (i.e. relating to alterations in perception; difficulties integrating elements of pre-trauma memories; internal traumatic memories; current daily living)	Self-report; 5 items rated on a 5-point Likert scale	Hebrew (Israel)	English
4) **Structured Interview for Disorders of Extreme Stress** (SIDES) self-report version available	Pelcovitz et al. (1997)	Zlotnick and Pearlstein (1997); Scoboria, Ford, Lin and Frisman (2008); Camargo et al. (2013)	Assesses seven subscale features of DESNOS relating to current and lifetime alterations in: altered regulation of affect and impulses; dissociation; altered self-perception; somatisation; altered relations with others; altered systems of meaning.	Structured interview; 48 items, *yes, no* responses	English (United States)	Portuguese (Brazilian)

Measure	Primary authors	Additional studies which evaluated the measure	Construct description/Features assessed	Mode of administration and number of items	Original language/ Country developed	Cross cultural assessment/ translation
5) **The International Trauma Questionnaire** (ITQ)	Cloitre et al. (2018; developed further from earlier versions of the measure; e.g. ICD-Trauma Questionnaire; Karatzias et al., 2016)	Vallières et al. (2018) Ho et al. (2019) Somma et al. (2019)	Assesses features of PTSD and DSO; three subscales, including six items measuring PTSD symptoms (relating to: current threat/hypervigilance; re-experiencing; avoidance of traumatic reminders) & three subscales consisting of six items assessing DSO features (affective dysregulation; negative self-concept; disturbances in relationships) (six additional items assess impairment in functioning – though according to the authors this has not been validated)	Self-report; 12 items rated on a 5-point Likert scale	English (multisite; tested in the United Kingdom)	Chinese Italian (measure also available in Arabic. Croatian, Dari, French, German, Hebrew, Japanese, Polish, Spanish & Swedish)
6) **The Trauma Symptom Checklist** (TSC 40)	Elliot and Briere (1992); adapted from the original by Briere and Runtz (1989)	Whiffen, Benazon, and Bradshaw (1997); Zlotnick et al. (1996); Neal and Nagle (2013); Rizeq, Flora and McCann (2018)	Six subscales assessing frequency of symptoms (related to: depression; anxiety; dissociation; post sexual abuse trauma; sexual problems; sleep disturbance;)	self-report; 40 items rated on a 4-point Likert scale	English (United States/ Canada)	
7) **The Trauma Symptom Inventory** (and TSI-2)	Briere (1995) Briere, (2011; TSI 2)	Runtz and Roche (1999); Dobosh (1999); Snyder, Elhai, North and Heaney (2009); Arbisi, Erbes, Polusny and Nelson (2010);	Assesses symptom severity associated to 10 subscales of post-traumatic stress; self-functions and disturbances in mood (as: (anxious arousal; depression; intrusive experiences; dissociation; anger/ Irritability; defensive avoidance; sexual concerns; dysfunctional sexual behaviour; impaired self-reference; and tension-reduction behaviour). Additionally,	Self-report: 100 items rated on a 4-point Likert scale assessing frequency and intensity over the past 6 months (TSI 2 136 items)	English (United States)	Deaf individuals Spanish Italian Swedish

Measure	Primary authors	Additional studies which evaluated the measure	Construct description/Features assessed	Mode of administration and number of items	Original language/ Country developed	Cross cultural assessment/ translation
		Gutiérrez Wang, Cosden and Bernal (2011); Gaambetti, Bensi, Nori and Giusberti (2011); Godbout, Hodges, Briere and Runtz (2016); Nilsson, Dahlstrom, Wadsby and Johannesson (2018)	includes three validity scales to identify invalid responses (also assesses atypical and inconsistent responses) TSI 2 assesses 12 subscales (removing irritability from the original list and adding new items of somatic preoccupation, suicidality and insecure attachment)			
8) **The screening for Complex PTSD** (SkPTBS)	Dorr, Firus, Kramer and Benge (2016)	Dorr, Sack and Bengel (2018)	Assesses symptoms of complex PTSD (including disturbances in emotion regulation; dissociative symptoms, negative self-image; disruptions in relationships; somatization; altered/negative perception; other) but does *not* screen for the PTSD features The measure also includes items assessing exposure to adverse experiences (including witnessing such) as well as risk factor items (e.g. age of exposure)	14 items on the revised version, rated on a 7-point scale (0 does not apply to 7, fully applies) The original measure had 16 items	German (Germany)	Spanish and Italian translations under development (F. Dorr, personal communication, June 2019)

3.2. Measurement quality and reporting properties

The quality rating of the measurement characteristics of the instruments included are presented in Table 5. The reporting standards are described in the text.

Table 5: Measurement properties rating using the checklist by Francis et al. (2016)

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
1) The symptom of Trauma Scale (SOTS)	Ford et al. (2015)	30 (23 female; 7 male) convenience sample, outpatient	41.1	Development of the SOTS; Measurement construct & target population defined; multiple subscales; assesses symptom severity associated to PTSD and complex PTSD	Experts and the literature used for developing the scale; feedback from respondents noted	Authors report excellent interrater reliability (interclass coefficients for total scores 0.88 to 0.95); and internal consistency was reported to be acceptable (with Cronbach's alpha = 0.73)	Measure assessed against other validated tools assessing the construct under investigation	12 symptom items rated on 7-point severity scale (absent, minimal, mild, moderate, moderate/severe, severe, extreme) Score range 12-84; management of missing data unclear	Semi-structured clinician/researcher led interview and rating scale; less than 30 mins Comprehension level not specified
	Ford et al. (2017)	93 (46 male; 47 female) clinical	38	SOTS assessed with adult male and female psychiatric out-patients with serious mental illness	As above	Internal consistency & reliability was reported by the authors to be acceptable (Cronbach's alpha = 0.93 for the total scale)	Hypothesis testing; construct & convergent validity assessed by correlations with other validated measures/history of exposure to adversity;	As above	As above

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
							gender differences reported		
SOTS Primary study checklist score				3/3	3/3	2/2	4/4	2/3	2/3
2) The Complex Trauma Inventory (CTI)	Litvin, Kaminski and Riggs (2017)	782 (70.5% female) opportunistic sample, students	20	Development of the CTI; measurement construct & target population defined; multiple subscales assessing severity (intensity/frequency) of symptoms: PTSD & DSO measured and functional impairment assessed	Experts and the literature used for developing the scale; no mention of respondent population involvement	Authors report good to excellent reliability/internal consistency for PTSD and DSO, Cronbach's alpha =0.89 to 0.92	Hypotheses testing; construct correlated with other validated measures and showed adequate convergent validity; factor analysis indicated support for two correlated second factors for PTSD and DSO; included gender and ethnic minority participants	50 items reduced to 20 items; rated on a 5-point Likert scale; scoring recommendations under development though authors suggest 2.00-2.99 indicates symptomatic; mean score $\geq$ 3.00 suggesting clinically significant management of missing data unclear	Self-report; easy to follow; reasonable number of items; completion time not reported; literacy level no higher than 8th grade
CTI Primary study checklist score				3/3	2/3	2/2	4/4	2/3	3/3

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
3) The Subjective Traumatic Outlook (STO)	Palgi, Shrira and Ben-Ezra, (2017); Study 1	138 (70 females) general population	32.01	Development of the STO; measurement construct & target population defined assessing subjective symptoms of psychological trauma	Consultation with professionals and the literature used for developing the scale; no mention of respondent population involvement	Authors report Cronbach's alpha = .85 for the 5-item version	Exploratory factor analysis revealed one-factor solution; significant convergent correlation with other comparable measures including PTSD reported (including r > .40); divergent bivariate correlations reported	5 items rated on a 5-point scale (1=not at all to 5=extremely; scoring 5-25); 17 items had been initially tested; management of missing data unclear	Self-report; easy to follow; reasonable number of items; completion time not reported; literacy level of the measure not reported
	Palgi, Shrira and Ben-Ezra (2017); Study 2	128 (68 female) one month follow up of study 1 participants	31.43	Confirmatory factor analysis of the STO and follow up testing of general population (for test-retest assessment)	As above	Authors report test-retest after one month was .77	Confirmatory factor analysis was reported to show one factor solution as good fit; reported strong and significant convergent validity (r>.40); divergent validity assessed against other measures	As above	As above
	Palgi, Shrira and Ben-Ezra (2017); Study 3	120 (84 female)	26.01	Confirmatory factor analysis of the STO with respondents who had been exposed to adversity (war related)	As above	Intercorrelations between the 5 studies reported	Confirmatory factor analysis was reported to show one factor solution as good fit; convergent and divergent validity assessments reported	As above	As above

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
	Palgi, Shrira and Ben-Ezra (2017); Study 4	56	24.06	Confirmatory factor analysis of the STO with females exposed to severe physical assault	As above	Intercorrelations between the 5 studies reported	Confirmatory factor analysis reported to show a one factor solution as a very good fit; convergent and divergent validity assessments reported	As above	As above
	Palgi, Shrira and Ben-Ezra (2017); Study 5	40 (27 females)	49.30	English version of the STO completed by respondents who had been exposed to adversity	As above	Intercorrelations between the 5 studies reported	Confirmatory factor analysis reported to show one factor solution as good fit; convergent and divergent validity assessments reported	As above	As above
	Mahat-Shamir et al. (2019)	343 (261 females) online, general population	34.17	Revalidating the STO and establishing clinical cut-off scores	As above	Authors report good Cronbach's alpha = 0.77 & 0.85	Results in line with hypotheses and factor analysis testing Gender indicated but no analysis reported	Authors reported cut-off score of 15 for ICD 11 CPTSD (and 13 for ICD 11 PTSD)	As above
STO primary study checklist Score				3/3	2/3	2/2	4/4	2/3	2/3
4) Structured Interview for Disorders of	Pelcovitz et al. (1997)	520 (treatment seeking population;	Not reported	Development of the SIDES; measurement construct &	Experts, the literature and field trials used for the scale	Internal consistency for each subscale (alpha = 0.53 to .96) and total measure	Hypothesis testing; results showed high SIDES prevalence rates in individuals with	48 items *yes, no* responses	Structured clinician/researcher led interview; 30 mins;

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
Extreme Stress (SIDES)		gender division not reported)		target population defined Assesses features of DESNOS	development; no mention of respondent population involvement	(alpha=.96); inter-rater reliability coefficients reported for lifetime .81 and current .67	interpersonal trauma exposure; authors reported lack of support for interpreting the symptom clusters; Gender and ethnicity indicated but no analysis reported	management of missing data unclear	Comprehension level not specified; self-report version also available
	Zlotnick and Pearlstein (1997)	74 females clinical population	39	Assessed the four dimensions of the SIDES against other relevant measures	As above	Authors report Cronbach's alpha for overall measure =.90 & alpha coefficients ranged from .42-84	Convergent validity assessed with correlation analysis; authors reported divergent validity established for the subscales assessed	As above (used the 48-item version) current functioning on 4-point severity scale used (none/no-problems to extremely problematic) management of missing data unclear	As above
SIDES- Revised (SIDES-R)	Scoboria, Ford, Lin and Frisman (2008); Study 1	231 (61% female) clinical/ treatment seeking convenience sampling	37.8	Assessed the factor structure of the DESNOS features of the SIDES-revised	As above	Internal consistency of 20-item reported to be acceptable (α = .77) (38 items tested but those not showing internal consistency	Clear hypothesis testing; convergent and discriminate validity assessed with correlation analysis of related variables/ measures; exploratory	38 items rated on a 4-point scale, ranged from normal to severe symptom presentation	As above

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
						(alpha <.33) were removed)	factor analysis found five factor solution fit for the 20 items		
	Scoboria, Ford, Lin and Frisman (2008); Study 2	447 (58% female) non-clinical convenience sampling	31.7	Examined the generalisability of the factor structure of the SIDES-revised in an incarcerated, ethnically and socio economically disadvantaged population	As above	Intercorrelations between study 1 and two reported	confirmatory factor analysis reported five factor fit –multivariate analysis of variance for adverse experience exposure variables (e.g. age, type) completed; convergent and discriminate validity correlations with related variables reported	38 items; rated on a 4-point scale that ranged from normal to severe symptom presentation	As above
	Camargo et al. (2013)	Reporting the translation process only	N/A	Translate the SIDES-R to Portuguese (Brazilian culture)	As above	As above	adapted to Portuguese language/Brazilian culture; mean score for understanding was 4.98 on a 5-point verbal rating scale; kappa coefficient = 0.853.	38 items; rated on a 4-point scale, ranged from normal to severe symptom presentation	As above
SIDES primary study checklist score				3/3	2/3	2/2	3/4	2/3	2/3

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
5) The International Trauma Questionnaire (ITQ)	Cloitre et al. (2018)	Sample 1 1051 (719 female) trauma exposed community population Sample 2 247 (168 female) trauma exposed clinical sample	47.18 42.07	Validations of the ITQ; measurement construct & target population defined; Measure of PTSD & complex PTSD, including DSO features	Experts, the literature and related research used for the scale development; no mention of respondent population involvement	Authors reported internal consistency (Cronbach's alpha) for all subscales were $\geq$ 0.77 with exception of one subscale (i.e. avoidance item, alpha=0.67)	Clear testing; item response theory analysis; confirmatory factor analysis; authors reported there was no missing data	12 items rated on a 5-point scale (indicating not at all to extremely) in relation to the past month (additional items for functional impairment were also included) score $\geq$2 is stated to be significant (original version of the measure is reported to have had 28 items)	Self-report; easy to follow; reasonable number of items; completion time not reported
	Vallières et al. (2018)	112 (80.2% female) Treatment seeking population	33.02	ITQ factor structure and clinical utility assessed with refugees (translated into Arabic)	As above	PTSD (.80) and DSO (.94) items reported to have excellent internal reliability	Confirmatory factor analysis reported to indicate two-factor higher-order model, argued to be consistent with ICD-11 PTSD and CPTSD	The ITQ version used here included 25 items in line with earlier versions of the scale by Karatzias et al., 2016)	As above (low rate of literacy in this population identified, scale was therefore reported to be administered face to face by therapists)

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
	Ho et al. (2019)	423 (59% were female; from whole sample 31 participants completed both Chinese and English versions)	20.17	Translation and validation of the Chinese ITQ	As above	Authors report semantic equivalence and test-retest reliability across English and Chinse versions, were acceptable	confirmatory factor analysis; provided acceptable model fit	As above	As above
	Somma et al. (2019)	748 (366 non-trauma exposed and 382 trauma-exposed adults from Italy		Translation and validation of the Italian ITQ; latent structure analysis	As above	Cronbach alpha was reported to be adequate for the trauma exposed group (alpha=.85) and non-trauma exposed groups (alpha = .80)	Authors report confirmatory factor analysis of ITQ items showed priori model of item-to-scale assignment; taximetric analysis showed latent distribution of the ITQ PTSD	As above	As above
ITQ primary study checklist score				3/3	2/3	2/2	4/4	3/3	3/3
6) The Trauma Symptom Checklist (TSC 40)	Elliott and Briere (1992; developed	2,963 from a national survey of		Development of the TSC 40; measurement construct &	Experts and the literature used for developing the scale; no	Authors reported acceptable alpha coefficient .090; to	Criterion validity assessed through correlation with adverse exposure type	40 items rated on a 4-point Likert scale assessing	Self-report; easy to follow; reasonable number of items;

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
	from the TSC 33 by Briere and Runtz, 1989	professional females		target population defined; assesses the sequel childhood sexual abuse	mention of respondent population involvement	the less acceptable alpha=.62		frequency of each item experienced in the previous two months (from 0, never, to 3 often, yielding a total scale score between 0-120)	completion time not reported; literacy level of the measure not reported
	Zlotnick et al. (1996)	130 female inpatient population	34	Examined the construct validity of the TSC-40 in an inpatient clinical population	As above	Correlation of subscales and other measures reported	Multivariate analysis of covariance conducted; correlation with comparable measures conducted; authors report convergent validity for three of the subscales were observed; divergent validity for the total scale reported	As above	As above
	Whiffen, Benazon and Bradshaw (1997)	103 males and 79 females-treatment seeking outpatient population	Mean age range 29.1 to 33	Examined discriminant validity of the TSC-40 in a clinical sample with histories of childhood sexual abuse	As above	Correlation between subscales and function discriminating between those with histories of sexual	Assessed against other validated measures and exposure to adversity; effect size suggested total scores were weak to moderate; findings	As above	As above

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
						abuse and those without	mixed, partial support for hypothesis		
	Neal and Nagle (2013)	441 (67% female) opportunistic college students	18.98	Evaluated the TSC 40 at detecting symptoms in a nonclinical sample	As above	Authors reported acceptable alpha coefficient for the total score .092; to the subscales ranging from acceptable .83 to less acceptable .60	Multivariate analysis conducted; authors report partial support for hypothesis; authors observed the measure detected trauma sequelae relating more broadly than sexual abuse alone	As above	As above
	Rizeq, Flora and McCann (2018)	706 (476 female) opportunistic undergraduate students	20.61	Examined the dimensional factor structure in respondents exposed to different/multiple forms of trauma	As above	Authors reported bivariate associate total scores were moderate to strongly correlated (r= ranging from .38 to .88)	Confirmatory factor analysis tested dimensional structure; Measurement invariance reported for participants with and without trauma exposure histories	As above	As above
TSC-40 primary study checklist score				3/3	2/3	2/2	4/4	3/3	2/3

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
7) The Trauma Symptom Inventory (TSI)	Briere (1995)	679		Development of the TSI; measurement construct & target population defined; assesses symptom frequency (acute and chronic)	Experts and the literature used for developing the scale; no mention of respondent population involvement	10 clinical scales demonstrated adequate internal consistency (alpha coefficients reported to range from 0.84 to 0.87 across studies)	Authors reported measure demonstrated reasonable convergent validity when correlated with other self-report PTSD measures	100 items rated on a 4-point scale assessing frequency and intensity (0 as indicating *never* and 3, *often*)	Self-report; easy to follow; suitable for adults with at least a year 6-8 reading ability; takes aprox 20 mins to complete
	Runtz and Roche (1999)	775 female population; opportunistic	19.9	Validation of the TSI in opportunistic female population	As above	Internal consistency reliabilities (Cronbach's alpha) were reported as moderate to very good (ranged from .64 to .90)	Multivariate analysis; convergent validity (significantly correlated)	As above; reported incomplete data was removed	As above
	Dobosh (1999)	81 (68% female)	25.6	Use of TSI with deaf individuals	As above	Author reported adequate reliability (alpha =.70 to alpha = .89; inconsistence response alpha = .49 – though this is congruent with its function as a measure of inconsistency	Correlation with other validated measures reported; author reported adequate validity; observed greater symptomology in this population	As above	As above
	Snyder, Elhai, North and	221 military veterans (18	52.07	Validated TSI for use with veterans	As above	Authors reported internal consistency	Convergent validity- TSI scales assessed against other	As above	As above

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
	Heaney (2009)	female; 203 male)				as being acceptable to Adequate, with the average Cronbach alpha across the subscales reported to be 0.83	validated measures; confirmatory factor analysis supported structural validity with a 3-factor model with two of these fitting the data best		
	Arbisi, Erbes, Polusny and Nelson (2010)	96 females (71 with histories of sexual abuse)	47.6	Assessed construct validity (concurrent and incremental validity) of the TSI with female respondents who reported history of abuse and those who did not	As above	Correlates with other measures reported	Reported multivariate analysis of variance; TSI subscales showed good convergent validity; validity scale was not found to be effective at detecting *invalid* responses on another related measure (e.g. detecting inconsistent responses)	As above	As above
	Gutierrez Wang, Cosden and Bernal (2011)	225 (155 female) opportunistic student sample	23.24	Translation and validating Spanish TSI (in Puerto Rico)	As above	Results support internal consistency, reliability coefficients reported as Chronbachs alpha ranged from .69 to .91	Exploratory factor analysis revealed two factors, which authors reported were consistent reports in the literature; construct validity assessed (those with and with history of	As above	As above

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
							abuse); convergent validity assessed		
	Gaambetti, Bensi, Nori and Giusberti (2011)	425, of which 285, non-clinical (55% female); 110 clinical (62.7% female); 30 post-traumatic population (50% female)	39.7	Validate the Italian TSI	As above	Italian version showed adequate internal consistency reliability (for validity scales, Cronbach's alpha ranged from 0.71 to 0.83 and for the clinical scales across the sample from 0.70 to 0.90)	Confirmatory factor analysis indicated two and three factor structural models and the authors reported the measure demonstrated adequate and best fit for the data: reported good convergent validity correlated with other measures; criterion validity, assessed for scale to predict PTSD scores;	As above	As above
TSI 2	Briere (2011)	679 general population (367 female)		Revising the TSI (TSI 2 includes 12 clinical scales of 10 items each; 9 scales updated and 3 new)	The literature, research and expert consultation	Internal consistency reliability assessed	Author reported reasonable convergent validity when correlated with other scales	136 items rated on a 3-point scale; six scales are further divided into two 5-item subscales; assessing frequency and intensity	Self-report; easy to follow; suitable for adults with at least 8th grade reading ability

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
	Godbout, Hodges, Briere and Runtz (2016)	679 general population (using data from Briere (2011), 367 were female	53.4	Evaluated the dimensionality of the 4 competing models of TSI-2	As above	As reported by Briere (2011)	Authors reported the initial hypothesis for three factors underlying the TSI-2, was not supported by the results, confirmatory factor analysis indicated best fit for the data was a 4-factor solution	As above	As above
	Nilsson, Dahlstrom, Wadsby and Johanneson (2018)	696 (convenience sampling of clinical, and student population)	Age range 27.6 to 39.6	Evaluation of the Swedish TSI-2 (of the 696, 573 were university students (427, female), 83 were clinical outpatient (61 female) and 40 (35 female) student population for test-retest analysis)	As above	Internal consistency and test-retest (Cronbach's alpha was reported to be good, ranging from .77 to .91)	Validity, assessed by correlating TSI2 with other validated instruments; confirmatory factor analysis used to test 4-factor structure	As above	As above
TSI primary study checklist score				3/3	2/3	2/2	3/4	3/3	2/3

Measure	Authors/ Additional studies	Sample size (N=)	Mean Age/ years	1) Conceptual model (see also features assessed column, Table 4)	2) Content Validity	3) Reliability	4) Construct Validity	5) Scoring & interpretation	6) Respondent burden & presentation
8) Screening Instrument for Complex PTSD; SkPTBS	Dorr et al., (2016)	325 (62.1% female)	51.5	Developed the SkPTBS; measurement construct & target population defined	Literature, other measures, ICD categories and consultation (with therapists) used in the measure development	Reliability reported at Cronbach's alpha =0.91	Factor analysis revealed one-dimensional structure; correlated with other measures; professional assessment of complex PTSD	14 items rated on a 7-point scale; scoring interpretation provided (2 additional items relate to the adverse experience)	Self-report; easy to follow; questions written by therapists with experience in this field; freely available; completion time approx. 10 mins.
SkPTBS Revised	Dorr et al., (2018)	525 (359 rehabilitation patients; 157 outpatients; in total 68% female)	48	Validating the revised SkPTBS according to the ICD 11 criteria for complex PTSD	Literature; diagnostic criteria	Internal reliability of Cronbach's alpha =0.91	Authors reported replication of a one-dimensional factor structure; correlated with other measures	14 items rated on a 7-point scale; scoring interpretation provided	As above
SkPTBS primary study checklist score				3/3	3/3	2/2	3/4	3/3	3/3

Francis et al. (2016) checklist scoring scale: 0=Criterion not met and 1= Criterion met

3.3. Psychometric properties and reporting standard

All studies reviewed were characterised by well-defined research questions, objectives and rationale. In addition, all studies included appropriate analyses in examining the psychometric features of the instruments. In regard to the sampling process, all studies used either purposive or convenience sampling using both clinical and the general population. Though all studies mentioned the number of participants, only one study explicitly commented on the statistical reasoning behind their sample size (i.e. Litvin et al., 2017). In regard to the statistical analysis, most studies did not explain how data that was missing were handled in the analysis, nor how missing data should be handled if the measures were to be used in other settings. Additionally, for most studies, information on the duration of completion time and the reading level of the measures was not reported, though this is recommended to be around the sixth grade, or 12-year-olds reading level (Reeve et al., 2013). From the reporting, there was also very limited information in the studies about the involvement, if any, of the target populations in the development or the review process of the instruments. For example, only Ford et al. (2015) reported there had been positive feedback from respondents at the completion of the SOTS and that "*participants reported that the questions addressed important concerns that they felt should be considered in treatment planning and in tracking progress*" (p8). All studies had followed the recommended format for reporting style (e.g. von Elm et al., 2007). However, the older publications (e.g. Pelcovitz et al., 1997; Zlotnick & Pearlstein, 1997), appeared not to be as thorough in the detailed reporting of each section, particularly in relation to procedures.

3.3.1 Complex trauma symptomology, scaling of scores and assessing change over time

The instruments included in this review appear to have been developed either for research, and hence the instruments were reported to have emerged for empirical reasons (i.e. Palgi et al., 2017; Elliot & Briere, 1992; Briere, 1995) or for those focusing primarily, or explicitly, on diagnoses (Ford et al., 2015; Pelcovitz et al., 1997; Cloitre et al., 2018; Litvin et al., 2017; Dorr et al., 2016), and hence, had emerged from the description provided by diagnostic manuals (e.g. DSM 5, APA, 2013 or the ICD 11, WHO, 2018). The variation seen in the outcomes associated to being exposed to the more type 2 related adverse experiences, appear to be reflected in the number of subscales of the constructs being assessed by the instruments. Score interpretability and cut-off thresholds were considered and reported by majority of the studies. Only the SkPTBS (Dorr et al., 2018) reported that results of those meeting clinical thresholds in the study were verified by those who actually received a complex PTSD diagnosis by a professional (their respondents were from a treatment seeking clinical population).

The TSI-2 subscales (Briere, 2011; updated and re-normed on the current general population from the TSI, Briere 1995), had been selected in line with the trauma literature and following consultation with trauma specialists with clinical expertise. The items focused on intrusive experiences, anxiety, dissociation, depression, impaired self-reference, avoidance, insecure attachment, sexual disturbance, suicidality, somatic preoccupation, tension reduction behaviours and anger (Briere, 2011). In addition, the TSI/TSI 2 was the only measure to include items assessing for validity of responses (i.e. to detect false positive/false negative responses; Briere 1995; Briere, 2011). Similarly, the TSC-40 (Elliot & Briere, 1992) was also developed based on empirical findings in the trauma literature and with consultation with trauma experts. The subscales were associated with: depression, anxiety, dissociation, sexual

problems, sexual abuse trauma and sleep difficulties. The SIDES (Pelcovitz et al., 1997) was developed according to field trial items that had emerged from a systematic review of the literature (as reported by Pelcovitz et al., 1989) and through consultation with trauma experts. The SIDES assessed the domains that had been presented by Herman's (1992) summary of the literature on complex adaptations which categorised the findings as: consciousness or attention; self-perception; regulation of affect and impulses; relations with others; systems of meaning; somatisation. The SIDES (Pelcovitz et al., 1997) was reported to assess current or life time alterations in these domains. The STO (Palgi et al., 2017) items were collated by psychologists using the literature and were compared to other widely used measures. This STO's (Palgi et al., 2017) measure assessed subjective symptom severity of psychological trauma that related to changes in perception. This deviated from the other measures included in this review as it did not directly assess symptomology. However, the development of the measure and the investigations led Palgi et al. (2017) to argue that the STO could be a useful screening tool for complex PTSD and the decision to include it in the review was therefore based on this rationale.

The measures based on diagnostic categories included the ITQ (Cloitre et al., 2018), SkPTBS (Dorr et al., 2016), CTI (Litvin et al., 2017) and the SOTS (Ford et al., 2015). For the ITQ (Cloitre et al., 2018), the authors report that given the IDC 11 (WHO, 2018) does not provide a specific diagnostic criterion, in order to operationalise the narrative description and features required for the ICD 11 PTSD and complex PTSD, research was used (i.e. Brewin, Lanius, Novac, Schnyder & Galea, 2009; van der Klok et al., 2005), as were consultations with the working group experts and a consensus survey among clinicians considered to be trauma experts (Cloitre et al., 2011). Similarly, the SkPTBS (Dorr et al., 2016) was developed using the

literature and with clinical experts in the area, and was later adapted to complex PTSD diagnostic criteria (Dorr et al., 2018). The CTI was also developed using the ICD 11 complex PTSD content, relevant literature, other related measures as well as a review by experts in the field (Litvin et al., 2017). The SOTS (Ford et al., 2015) also used the PTSD and complex PTSD (including the dissociative subtypes) diagnostic framework in its development. Though Ford et al. (2017) indicate the instrument was not aimed at being a diagnostic measure, it was described as a rating scale designed to assess symptom severity that could be used as a screen for PTSD and complex PTSD and that it could also be used to monitor progress and outcome as it was considered to be sensitive to change.

3.3.2. Validity and reliability

A range of validity and reliability assessments were conducted in all studies (in both primary and subsequent publications) and included evaluation of construct, convergent and content validity and test-retest/inter-rater coefficients and factor analysis. The scales/subscales were reported to demonstrate good to acceptable alpha coefficient ratings, though some subscales were reported to show weak or inadequate scores which led the authors to adapt the measures accordingly. For example, Pelcovitz et al. (1997), in investigating the SIDES, dropped the item *altered perception about the perpetrator* from the final version of the scale following a weak correlation of this item during analysis as a complex trauma symptom. Similarly, most studies reported question selection from a greater number of items and on the back of the analysis, a more refined number made it to the final version of the measures (e.g. Cloitre et al, 2018; Litvin et al., 2017). All studies reported assessing for construct validity by comparing the instruments under investigation with other validated measures. The authors for all studies reported correlating the measures with other trauma-related instruments as evidence of

convergent validity and assessing for correlations with theoretically similar subscales (Rosenkoetter & Tate, 2017; Francis et al., 2016). All measures had at least one published study that had conducted factor analysis (Litvin et al., 2017; Palgi et al., 2017; Scoboria et al., 2008; Colitre et al., 2018; Dorr et al., 2016; Snyder et al., 2009; Rizeq et al., 2018). The authors of the ITQ, through factor analysis, reported that the structure of the shortened 12-item version was able to effectively capture the distinction between PTSD and DSO (Cloitre et al., 2018). Similarly, confirmatory factor analysis for the CTI supported two highly correlated factors for PTSD and DSO, leading the authors to conclude their findings supported the argument that complex PTSD and PTSD were distinct disorders (Litvin et al., 2017). Importantly, CTI authors state that though DSO and the PTSD scales are designed to be interpreted together (to assess for complex PTSD), they found 2.2% of their respondents were found to have elevated scores on the DSO but did not meet the threshold for PTSD (Litvin et al., 2017). All the studies concluded that the measures under investigation warrant further evaluation and mentioned some caution to their use. For example, Ford et al., (2015), for the SOTS reported the study had been preliminary and warranted further research. Additionally, in context of cross-cultural evaluation and measurement invariance, several of the measures had been translated, investigated and validated in cross-cultural populations and different languages.

4. Discussion

The complex trauma literature is an evolving area of study. This systematic review evaluated findings which suggested that a limited yet growing body of research is assessing the methodology, measurement and psychometric properties of assessment tools designed to

measure complex trauma-related symptomology. Though more research is required, all measures included in the review were considered to be valuable in some regards for assessing complex trauma-related symptoms (Ford et al., 2015; Litvin et al., 2017; Palgi et al., 2017; Pelcovitz et al., 1997; Cloitre et al., 2018; Elliot & Briere, 1992; Briere, 1995; Dorr et al., 2016). However, in line with the findings reported by Saini et al. (2019) in their review of retrospective measures of childhood abuse, the instrument most likely to be appropriate for assessing complex trauma-related symptomology will effectively depend on the purpose of its use. Indeed, all studies specified the intended purpose of the instruments which ranged from clinical to non-clinical populations for purposes of research, screening, diagnosing and outcome monitoring. The measure would therefore need to be selected in light of various factors (e.g. setting of use, suitability, relevance). For example, some measures were suggested to be used as quick screening tools (e.g. STO, Palgi et al., 2017). Additionally, two of the measures (SOTS; Ford et al., 2015 and SIDES; Pelcovitz et al., 1997) were clinician administered interviews and this would therefore, impact on its use.

Most measures appear to consider issues relevant to responder burden by making instruments relatively short (e.g. ITQ 12 items; Cloitre et al., 2018) and easily accessible (e.g. around sixth grade reading ability; Briere, 1995). Scoring and interpretation of measures also appear to be user friendly for majority of measures (e.g. Likert scales). A further important consideration is that patient-generated outcome measures are increasingly seeing the value of incorporating the views of target populations/respondents in the development of the instruments (Rosenkoetter & Tate, 2017). There is some evidence of this happening in a minority of the measures included in this study (e.g. reporting positive feedback by respondents of the SOTS, Ford et al., 2015). However, though this may be a feature of

reporting style, this was an area where there was no consistent reporting or indication across the measures reviewed. Additionally, in line with the WHO recommendation of open access to research (WHO, 2018), majority of the measures in the study are freely accessible to both the public and the research community.

4.1. Theoretical considerations

Empirical literature and diagnostic systems in a clinical sense, though related, are two separate processes that are influenced by different priorities which at times, can be conflicted (Ghaemi, 2018). The findings from the current review appear to be relevant to this point in that five of the measures (62.5%) had been developed to specifically screen/assess for complex PTSD according to a diagnostic framework (i.e. using the IDC 11 criteria). However, a debate that continues within the academic field of trauma theory and research is whether PTSD diagnosis alone captures *all* trauma presentations (Resick et al., 2013) or whether a broader category with additional features is required (e.g. complex PTSD; Herman, 1992). The DSO features are considered to make PTSD distinct from complex PTSD (Cloitre et al, 2013). Seven of the instruments in this review, assessed both these features (i.e. PTSD and DSO). However, some researchers have reported findings that suggest DSO features may exist independently of PTSD (Ford, 1999; Litvin et al., 2017). However, only two measures in this review appear to assess DSO independently (i.e. Pelcovitz et al., 1997; Dorr et al., 2016). In this regard, the current ICD 11 diagnostic framework (i.e. needing both the PTSD and DSO features to be present to warrant a complex PTSD diagnosis and/or cut-off scores being based on the assessment of both features), may be influencing the direction of the research and the emergence of the more recently developed and published measures.

Some authors have argued that diagnostic systems are inconsistent with the empirical data; though reliability in diagnosing has improved, particularly relevant for research purposes, the same progress has not been seen in clinical practice (Timimi, 2014). Such arguments, though beyond the scope of this review to discuss in detail, tap into a broader ongoing debate within the literature about the construct validity of psychiatric diagnostic categories, their reliability (i.e. extent to which different clinicians agree on a diagnosis from independent assessments; Aboraya, France, Young, Curci & LePage, 2005) and their variable usefulness in treatment decision making and outcomes (for an overview see Timimi, 2014). Furthermore, one of the initial advocates of a complex trauma diagnosis, Herman (1992; i.e. complex PTSD), in her seminal work chronicled the socio-political context of the repetitive and enduring forms of abuse, adversity and violation that women and children in particular, but also men, had been subjected to that could result in complex adaptations. Importantly, part of presenting an argument for a complex trauma diagnosis, as Herman (1992) had argued, was to reflect the atrocities that had been endured and to validate the experiences of the survivors. However, the heterogeneity of the outcomes of such experiences noted in the literature (e.g. Carr et al, 2013) may contribute to the difficulties seen in operationalising it and hence, the challenge this poses for being able to effectively capture the phenomenon or establish a structured approach to its assessment (e.g. Weathers & Keane, 2007). The ongoing debate regarding trauma-related diagnostic categories may also attest to the challenges of developing a uniformed approach to its conceptualisation and assessment (e.g. Resick et al., 2013; Brewin et al, 2017).

4.2. Limitations of the studies

Missing data in the studies reviewed were not always clearly reported but could nonetheless impact the generalisability of the measures. It was unclear how this was managed in most of the studies as this was not explained. The distribution of the scores in the different measures was also not always identified, complicating the interpretation of the scores. Additionally, though cross-cultural validity studies had been conducted for some of the instruments, several of the measures had been translated but the measures did not appear to be investigated in cross-cultural settings, impacting the applicability of the measures beyond the settings in which they were developed/tested. Additionally, the briefer reporting style of the older publications (e.g. Pelcovitz et al., 1997) had less thorough information, therefore the needed information could not be fully reviewed.

4.3. Limitations of this systematic review

The limitations of this review encompass the following points. Though the Francis et al's (2016) checklist was used for systematically reviewing the studies, as the tool had primarily been designed for patient-reported outcome measures, some adaptations were made in that additional features were also assessed (e.g. cross-cultural validity). However, a broader criticism is that even if an evidence-based and broader assessment tool had been used (e.g. COSMIN; Mokkink et al., 2017), there is still the possibility of subjective biases impacting the rating and decision-making process in systematic review processes for measurement tools (Mokkink et al., 2017; Saini et al., 2019). For example, no statistical test exists to review content validity, therefore subjective biases can impact evaluation in this domain (Francis et al., 2016; Mokkink et al., 2017). Additionally, only studies that could be accessed or translated into English were included, limiting the findings further.

5. CONCLUSION

In an attempt to capture complex trauma-related symptomology several assessment tools have been developed. From this systematic review, no measure was found to have better ratings to the others across the domains assessed, though they all appear to be rated relatively well in their measurement properties and the study methodologies. The decision to use one measure over another however, will most likely depend on the purpose and context of its use. Given the developments in trauma-related diagnostic categories (e.g ICD 11's complex PTSD), distinguishing measures that have been developed for empirical reasons and those that have emerged for diagnostic purposes is perhaps an area that may warrant further consideration from the wider trauma research community.

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CHAPTER 2

ORIGINAL RESEARCH ARTICLE

Title: Exploring consensus in best practice when working with trauma in male populations detained in secure forensic mental health settings: A Delphi study

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Abstract

Consensus was investigated among practitioner psychologists in the United Kingdom as to what might constitute a best practice framework when working with *trauma* in male populations detained in secure forensic mental health settings. Using a three stage Delphi process, the views of 17 respondents indicated high agreement about a range of presentations that may warrant trauma assessments. Consensus was also established regarding intervention goals relevant to mental health and criminogenic needs, in addition to training and guideline considerations. However, the findings indicated more varied views about the theoretical models that may inform practice and the types of interventions utilised.

Keywords: Trauma, male populations, forensic mental health, adults

1. INTRODUCTION

Mounting empirical data has drawn attention to the overrepresentation of adverse experiences, such as physical abuse and neglect, in the histories of incarcerated male populations (Wolff & Shi, 2012). Though many people recover from exposure to adverse experiences (Rutter, 1985), variability in the outcomes for those who do develop associated problems have been reported (Cicchetti & Toth, 2009; Bonanno & Mancini, 2012). That is, being exposed to adverse experiences has been linked to an array of negative psychological consequences including mental illness, substance use and comorbidity (Hughes et al., 2017), difficulties also found to be highly present in incarcerated populations (Tyler et al., 2019). When and if exposure to adverse experiences generates intense feelings, such as terror or fear, a person's emotional and physical capacity to cope can become overwhelmed, potentially triggering a *trauma* response with both short and long-term consequences (Herman, 1992; Substance Abuse and Mental Health Services Administration, SAMHA, 2014). The heterogeneity of responses following exposure to adverse experiences has led to the on-going debate regarding how best to conceptualise the symptoms or the disorders that might emerge as a consequence (e.g. Liddle, Boswell, Wright, Francis & Perry, 2016; Bonanno & Mancini, 2012). The term *trauma* is used here to denote responses to a broad range of experiences/stressors that were most likely prolonged, repeated, where escape was difficult and resulted in direct harm, neglect or abandonment which occurred at developmentally vulnerable times (Courtois & Ford, 2009).

Individuals with major mental illnesses who have contact with the criminal justice system or where there is a risk of contact (Edwards, Steed & Murray, 2002), depending on their needs

and level of risk, are likely to be detained and cared for in low, medium and high secure forensic mental health (FMH) hospital settings rather than prison environments. Within the United Kingdom (UK), detention of this kind is governed by criminal justice and/or mental health related legislation with corresponding treatment guidelines (e.g. in Scotland, Memorandum for Procedure for Restricted Patients, Scottish Government, 2010). Patients in such settings, in line with mental health legislation, may be subject to compulsory treatment requirements. High rates of severe mental illnesses (SMI, including schizophrenia/other psychotic disorders, personality disorders, substance use) and co-morbidity have been reported in these settings (Gow, Choo, Darjee, Gould & Steele, 2010; Baranyi et al., 2019). Furthermore, elevated levels of trauma-related presentations have also been reported in incarcerated male populations (e.g. post-traumatic stress disorder; Matheson, 2012; Ardino, 2012; Baranyi, Cassidy, Fazel, Priebe & Mundt, 2018). General trauma assessment and treatment recommendations are emerging (e.g. SAMHSA, 2014). However, guidance relevant specifically to male populations in forensic mental health services appear to be lacking. Using a Delphi process, this study aimed to explore the degree of consensus amongst practitioner psychologists within the UK in what a best practice model might entail when working with trauma in male populations detained in secure FMH settings.

1.1. Adverse experiences and offending

Bynion et al. (2018), from a national comorbidity survey of 1928 youths, observed those with histories of adverse experiences, of a violent interpersonal nature, were found to have elevated levels of aggression towards both themselves and others. Whitfield et al. (2003) reported that boys with histories of physical/sexual abuse, or those who had witnessed their mothers being abused, showed higher rates of intimate-partner violence in adulthood.

Children subjected to adverse experiences were reported to be at increased risk of juvenile offending (Maxfield & Widom, 1996; Baglivio et al., 2015) and adult criminality (Reavis, Looman, Franco & Rojas, 2013; ACE, Wales NHS Trust, 2015;). Fox, Perez, Cass, Baglivio and Epps (2015) reported that the risk of committing a violent offence by the age of 35 increased with the number of adverse experiences. Similarly, children exposed to four or more forms of adversity in childhood were found to have a twenty-time more likelihood of being incarcerated and fifteen-time more likelihood to have perpetrated violence in adulthood than those without such histories (ACE; Wales NHS Trust, 2015).

It has been theorised that the impact of exposure to adverse experiences, or an attempt to cope with the impact, may produce neurobiological dysregulations and attachment pathology (i.e. interpersonal and psychological functioning) that increases the likelihood of risky behaviour (Reavis et al., 2013). Exposure to adverse experiences has been linked with poor emotion regulation (Briere, Hodges & Godbout, 2010), higher levels of anxious arousal and heightened tendency to express anger (Ringer Buchanan, Olesek & Lysaker 2014; Bynion et al., 2018). Moreover, internalising (such as self-harm) and externalising (such as violent offending) forms of behaviour categories following exposure to adverse experiences have also been described (Webb et al., 2017).

1.2. Adverse experiences and psychopathology

Wolff and Shi (2012), exploring lifetime exposure to adverse experiences in a male prison population (n=3,895), in comparison to the general population, found rates to be higher in this group; they observed 25.1% for physical abuse, 3.7% sexual abuse and 3.2% for both

physical and sexual abuse. The prevalence of exposure to adverse experiences in FMH patient populations, appear even greater. For example, Spitzer, Chevalier, Gillner, Freyberger & Barnow (2006) in a forensic hospital setting, including male and female patients, reported rates of emotional abuse in 69% of their study population, 47% as relevant to sexual abuse and 41% for neglect (n=32; though psychotic disorder was excluded due to impact on understanding the study questions).

Trauma responses have been found to be impacted by a number of factors. For example, variables relevant to the adverse experience (e.g. duration, age, developmental stage at which the adverse experience occurred; van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005) and the response received upon disclosure/discovery (Easton, 2019). A *dose effect* has been identified, where the accumulation and the adverse experience type appear to impact the symptom severity observed (Shevlin et al., 2008). A cluster of symptoms has been associated with trauma-specific diagnoses. Two of the most widely discussed are Post-Traumatic Stress Disorder (PTSD; Diagnostic and Statistical Manual of Mental Disorders, DSM, American Psychiatric Association, APA, 2013; ICD 10; World Health Organisation, WHO, 1994) and complex PTSD (due to be published in the International Classification of Diseases upcoming 11th edition, ICD 11; WHO, 2018). Trauma-specific diagnoses were not, however, reported to be the most prevalent diagnoses in individuals thought to have been exposed to adverse experiences (Schmid, Petermann & Fegert, 2013). High rates of lifetime exposure to adversity have been estimated in people with severe mental illnesses (SMI, including psychotic disorders, personality disorders; substance use and co-morbidity; Pirkola et al., 2005; Varese et al., 2012; Carr, Martins, Stingel, Lemgruber & Juruena, 2013; Hughes, Lowey,

Quigg & Bellis, 2016). In a meta-analysis of over 80,000 participants, van Winkel, Nierop, Myin-Germeys and van Os (2013), observed that individuals with childhood abuse histories were 2.8 times more likely to develop psychosis. Sitko, Bentall, Shevlin, O'Sullivan and Sellwood (2014) found sexual abuse linked to hallucinations and physical abuse/neglect to paranoid ideation in individuals with psychosis. Larrson et al. (2013) observed childhood abuse to be associated with bipolar disorder.

Researchers commenting on early findings, observed trauma responses appeared to have been categorised as co-morbid conditions rather than post-traumatic adaptations (Courtois, 2004; van der Klok et al., 2005). Minsky et al. (2015) found that most adults receiving treatment for SMI with documented histories of adverse experiences had not been formally assessed for a trauma diagnosis. Similarly, data has shown that people meeting the diagnostic criteria for PTSD (Brady, Killeen, Brewerton, & Lucerini, 2000) and complex PTSD (Perkonigg et al., 2016; Elklit et al., 2014; Murphy, Elklit, Dokkedahl, Shevlin, 2016) were found to have high rates of co-morbid disorders. Scott (2007, unpublished) screening for PTSD in a high secure FMH hospital, observed however, that none of the 20.27% of those meeting the full diagnostic criteria for PTSD, had a PTSD diagnosis in their medical files. Scott (2007, unpublished) also reported that a large proportion of the multi-disciplinary staff who worked in high secure FMH hospital settings interviewed in her study, had difficulty recognising PTSD from case vignettes. Though this may indicate a training need, it may also relate to criticism from authors such as Summerfield (2001), who argue that PTSD features are difficult to distinguish from those of other mental disorders.

An association has also been observed between trauma and personality disorders. The development of antisocial personality disorder has been linked to physical abuse (Lobbestael, Arntz & Bernstein, 2010; Waxman et al., 2014) and witnessing intimate partner violence (Berenz et al., 2013). Avoidant and schizoid personality disorders have been linked to emotional neglect (Waxman et al., 2014). Sexual abuse was associated to schizotypal and borderline personality disorders (BPD; Waxman et al., 2014). Furthermore, reviewing the literature, MacIntosh, Godbout and Dubash (2015) observed that 30% to 91% of individuals diagnosed with BPD had histories of childhood abuse. The phenomenological and conceptual overlap between complex trauma responses and BPD led to the argument for BPD to be re-categorised as a trauma diagnosis (Herman 1992; van der Kolk, Hostetler, Herron & Fisler, 1994), though more recent analysis has suggested these are distinct disorders (Cloitre et al., 2014).

A further consideration for incarcerated populations, as described by Diamond, Lipsitz, Fajerman and Rosenblatt (2010), regards issues of Ongoing Traumatic Stress Response (OTSR). For those who may have trauma symptomology, it has been argued that if some sense of safety cannot be attained, it may result in the continued expression of a trauma response (e.g. hypervigilance) and in such conditions, the response may be based on a rational concern (Diamond et al, 2010). The desired safety, or its perception, within custodial processes and settings may not always be attainable; adult secure settings (i.e. prisons, secure hospitals) have been reported to have significant rates of victimisation (e.g. verbal, physical, emotional and sexual abuse) as well as witnessing such (e.g. fights; Kubiak, Covington & Hiller, 2017). Additionally, in secure forensic settings, trauma symptoms (e.g. hypervigilance and/or the threat of aggression) may elicit institutional reactions (e.g. admission to segregation units)

potentially exacerbating the distress further (Jones, 2016). This theme has been described by Bloom (2006) as what she describes as *parallel processes;* the combination of individuals who may be traumatised, in environments where staff are stressed, within organisations under pressure with limited resources, can lead services to operate in ways that may be re-traumatising. Research on early adverse experiences has been a key factor in influencing trauma-informed practice guidelines that aim to more effectively recognise where trauma-specific support may be warranted (e.g. SAMHSA, 2014). Trauma-informed training frameworks for implementation across mental health services and related organisations have been developed and have gained considerable momentum (e.g. NES Scotland, 2019; NHS England, 2018).

1.3. Approaches to psychological treatment

Individuals detained in secure FMH settings can present with multiple needs which may relate to mental health and criminogenic risk. Though offender rehabilitation literature is extensive, most pertain to individuals within the criminal justice and prison systems, where focus has varied from addressing criminogenic risk (i.e. aiming to reduce reoffending) to more recently, encompassing mental health needs (Harvey & Smedley, 2010). General guidelines for psychological treatment intended to inform practice in FMH settings are also available (e.g. within Scotland, The Matrix, NHS Education for Scotland, 2015). Knabb, Welsh and Graham-Howard (2011) in a systematic review of therapies for forensic patient populations found that providing therapy for mental health problems could facilitate the addressing of risk. Other authors have theorised that in forensic populations with histories of trauma, offense-specific treatment models and/or those addressing SMI without acknowledging or addressing the trauma will not be able to decrease recidivism (Miller & Najavits, 2012). Given that

intervention goals are considered a vital component of psychological treatment (Jasson, Tham & Ramero, 2015), where care needs encompass more complex, severe and enduring presentations, the intended outcomes remain less clear (Wolfson, Holloway & Killaspy, 2009). This can perhaps be even more complicated in FMH populations where trauma may be linked to a current diagnosis (e.g. substance use), which may be considered a risk factor in the offending behaviour (e.g. violence; Sommer et al., 2017). The requirement for trauma-informed and trauma-specific care in forensic services have been gradually building (Matheson, 2012; Jones, 2016). Importantly, evidence-based interventions for the more *complex trauma* type of presentations, in general, are still gathering (e.g. see Karatzias et al., 2019 for a systematic review of interventions for complex PTSD).

1.4. Trauma and gender

Research has indicated variations in the type of adverse experiences likely to be experienced according to gender and the stage of development they are likely to occur at (Olff, 2017). For example, some authors have found females report greater exposure to sexual abuse whereas males tend to report more physical abuse (Tolin & Foa, 2006; Wamswer-Nanney & Cherry, 2018). Trauma responses with regards to gender appear however, inconsistent. For example, in some studies, the female gender was observed to be an increased risk factor for a trauma-related diagnosis (e.g. PTSD and complex PTSD; Hyland et al., 2017; Giarratano, Ford & Nochajski 2017; Perkonigg et al., 2016). Other studies, have not however, reported gender effects as a risk factor for either diagnosis (Cloitre et al., 2013; Karatzias et al., 2016; Murphy et al., 2016). Importantly, Barlow & Hetzel-Riggin (2018) found that gender itself was not associated to post-traumatic responses (i.e. post-traumatic growth), but rather it was the interaction between gender role identification and adherence to gender role norms. Kupers

(2005), presented a theoretical exploration of how institutional dynamics within prison settings can interact and intensify conformity to *toxic masculinity* gender roles in males (i.e. needing to dominate/aggressively compete).

Premorbid psychological difficulties, observed to vary according to gender, has also been found to impact trauma-responses (Tolin & Foa, 2006). Higher levels of internalising, such as fear and anxiety disorders, have been reported in females, difficulties central to the PTSD diagnosis, and factors known to be impacted by gender socialisation processes (McLean & Anderson, 2009) whereas males tend to exhibit greater externalising difficulties (e.g. anger; irritability; Miller, Grief & Smith, 2003). Though trauma-responses in males may not be well understood (Gibbs, 1989), a study by Debowska & Boduszek (2017), using latent class analysis in a male prison populations who had histories of child abuse and neglect, found variability in relation to the following areas: affective and cognitive responsiveness; self-esteem, including prison related; perceptions regarding male sexual violence, particularly in intimate relationships; attitudes towards violent offending. This observation, if part of a trauma response in male prison populations, would suggest a more varied and complicated picture than the current trauma diagnostic criteria would allow.

Engagement with treatment in the general population have also been found to differ across the genders, with the female gender being observed to have higher rates of treatment-seeking behaviour for psychological difficulties (Thompson et al., 2016). Kupers (2005), theorised that adherence to *toxic masculinity* gender norms by males detained within prisons

may impact resistance to accessing psychological therapy in such settings. Additionally, Delrey (2011) exploring trauma in juvenile offender populations, observed how females were more frequently referred for trauma-related treatment. This appeared to be the case irrespective of whether clinically significant trauma symptoms were present or not (Delrey, 2011). Furthermore, Wade et al. (2016) from their review and meta-analysis exploring the outcomes of trauma-focused psychological interventions according to gender. The authors observed that following the trauma-focused intervention, being female was associated to a greater improvement on the features assessed (Wade et al., 2016).

A further consideration that may relate to observed gender differences with regards to trauma, is the underreporting of traumatic experiences and barriers to disclosing abuse (for a review see Ullman, Foynes & Tang, 2010). The stigma surrounding masculinity, male childhood abuse and homophobia in relation to sexual abuse (e.g. damaged sexuality, O'Dell, 2003) may have a silencing effect. Personal distress and fear of facing assumptions (e.g. abuse automatically leads to perpetration), may be further reasons that can impact disclosure of trauma related experiences in male populations (Foster, Boyd & O'Leary, 2012). Bernstein & Fink (1998), in developing the Childhood Trauma Questionnaire (CTQ), a retrospective self-report measure designed to capture past experiences of trauma, included items that constituted a denial scale or could indicate a pattern of responses considered to suggest the likelihood of underreporting or minimising abuse (*false negative*). Macinnes, Macpherson, Austin and Schwannauer (2016) investigated childhood trauma experiences and engagement in therapy in an adult FMH patient population from a secure hospital setting (n=64; 62 males and 2 females). Using the CTQ, the authors observed false negative answers in approximately

36% of respondents (Macinnes et al., 2016). In the general population, those who had endured more severe forms of adverse experiences, and demonstrated greater trauma-related symptomology, were observed to be less likely to fully disclose such experiences (Sinclair & Gold, 1997). Perez, Penate, Bethencourt and Fumero (2018) found that in adolescents, disclosure of adverse experiences was associated with a reduction of the emotional effects and with greater therapeutic benefits.

Secure FMH settings within the UK operate within a highly structured care pathway process and are commissioned to deliver a range of treatments. These include psychological interventions intended to be delivered by appropriately qualified professionals. Within the UK, Health and Care Professionals Council (HCPC) registered practitioner psychologists, who work in secure forensic hospital settings, are one such group of professionals who are able to deliver these (including forensic and clinical psychologists; HCPC). The rising number of female offenders over the past few decades has led to the acknowledgment of the multiple health needs of this population (Female Offender Strategy, 2018). Gender-focused rehabilitation recommendations for female forensic patient populations, which include addressing trauma, substance use and mental illness, have emerged (i.e. within the UK, Commission on Women Offenders, Scottish Government, 2012; Bartlett, Somers, Finader & Harty, 2014). With limited research in this area, it remains unclear however, whether such recommendations would look different for the male counterpart of this population (Matheson, 2012).

1.5. Aims of the study

General and female gender-focused guidelines into trauma-informed practice and trauma-specific interventions for forensic populations are available (e.g. Commission on Women Offenders, Scottish Government, 2012). However, there appear to be limited empirical data regarding processes adopted for male forensic mental health patient populations. Through repeated surveys, the Delphi method allows consensus to be explored among a panel of experts in an area where there is limited empirical knowledge and for the development of a best practice framework (Beech, 2001). For the purpose of this study, the Delphi method was therefore adopted to investigate the degree of consensus among a panel of HCPC registered psychologists regarding what a best practice model would look like in relation to male populations detained in secure forensic mental health hospital settings. The areas analysed related to: conceptualisation of trauma; terminology preferences; theoretical models informing practice; trauma detection and assessment; intervention decisions and aims; guidelines and training. Though several theoretical considerations have been presented in the introduction, this study adopted an exploratory approach and therefore, no hypotheses were proposed.

2. METHOD

2.1. Design

The Delphi method, using a panel of experts, can explore consensus in a field where research may be lacking (Beech, 2001). The method involves two or more rounds of data collection through questionnaire format. The initial stage entails an exploratory approach consisting mainly of open-ended questions where responses are used to develop closed-ended items

for the subsequent rounds aimed to measure consensus. It has been suggested that consensus can be reached within two (Taylor et al., 2016) or more rounds (Iqbal & Pipon-Young, 2009).

2.2 Participants

What constitutes an *expert*, how they may be unevenly represented (Baker, Lovell & Harris, 2006) and the risk of findings reflecting general statements and not in-depth awareness (Altschuld & Thomas, 1991) have been debated in the literature. Therefore, purposive sampling, using a formal requirement for the identification of psychologist practitioners was used (i.e. holding a particular professional qualification with a minimum level of experience). For the current study, the opinions of Health and Care Professions Council (HCPC) registered psychologists with experience of working with male populations detained in low, medium and high secure forensic mental health (FMH) hospital settings were investigated. This included practitioner forensic and clinical psychologists. Heterogeneity of participants, in that a wider or more diverse group of respondents agreeing, has been argued by some authors to improve validity in Delphi studies (Mead & Moseley 2001). Others, however, have criticised this on the grounds that perhaps consensus is established on non-salient points (Baker et al., 2006). Additionally, panellists were asked to respond according to their opinion, rather than to represent their service or team views. This was intended to elicit more rich information about the professional's own experience and knowledge rather than establishing data on general policy and/or perspectives (Koukopulos et al., 2018).

The inclusion criteria also required a minimum of 12 months experience working with male populations detained in secure FMH settings in the UK within the past five years. This was aimed to ensure expertise and a relatively up-to-date understanding of policy and practice on this issue (Baker et al., 2006). The exclusion criteria included: multidisciplinary staff; HCPC registered psychologists with less than 12 months experience; non-English speaking professionals as the survey was conducted in English. The ideal number of participants needed for a Delphi study appear inconclusive (Keeney, Hasson & Mckenna, 2001). Given the amount of data collection and subsequent analysis that each respondent generates (Iqbal & Pipon-Young, 2009), panels of between 10 and 50 have been recommended (Turoff, 2002). From FMH related Delphi trials published in peer-reviewed journals, the number of participants have ranged from 10 in the initial round (e.g. To et al., 2014) to over 70 (e.g. Hackett, Masson & Phillips, 2006).

2.3. Procedure

Purposive and snowballing participant recruitment methods were utilised to establish the expert panel. The literature on forensic mental health was searched to identify HCPC registered practitioner psychologists meeting the inclusion criteria. Though the number of psychologists registered with the HCPC in 2018 was 22,960, data on forensic and clinical psychologists registered as working in secure FMH settings was not available (HCPC, personal communication, July 2019). For potential participants with available contact details, an introductory email invitation to the study was sent. Additionally, requests were made to relevant professional organisations and FMH services in England, Scotland and Northern Ireland to share the study information across their networks so that interested participants could contact the lead researcher. A total of 27 psychologists responded to the recruitment

email to register their interest; 17 took part in Round I. The snowballing technique in this type of study has been criticised as contributing members may become aware of others who may potentially participate which in turn could influence responses. Additionally, some respondents were known to the lead researcher, which could also potentially lead to response biases (Holbrook, 2008). Anonymising the research data through the online programme was one approach adopted to minimise this risk.

One drawback to the Delphi process is attrition rates due to the time commitment (Iqbal & Pipon-Young, 2009). Similarly, healthcare professional's response rate to questionnaires have been observed to be lower than responses by those from the general population (Martins et al., 2012). However, some authors have suggested that in line with the leverage-salience theory (Groves & Peytcheva, 2008), if importance is assigned to aspects of the research, this will increase participation. Burke and Hodgins (2015) also recommend incorporating more personal and contextual information, as such approaches have been observed to be a helpful mechanism for retention and motivating participants to remain engaged in all rounds (Keeney et al., 2001). Therefore, where possible, personal emails were sent.

Those agreeing to participate in the study were provided a Participant Information Sheet (PIS) and Consent Form followed by a personalised link to the online survey. In line with recommendations, once registered, if the questionnaire had not been completed, a single reminder email was sent. Access to the online survey for Round I was over four weeks and for Rounds II and III the access period was two weeks for each. Only those who completed Round I of the survey were invited to participate in Round II and only those who completed Round II were invited to take part in Round III. Keeping the period between rounds as short as possible

was considered important to encourage participant's interest and engagement (Skulmoski, Hartman & Krahn, 2007). However, the construction of the Round II questionnaire, by analysing Round I data, is considered time consuming (Iqbal & Pipon-Young, 2009). Therefore, the period between Round I and Round II was ten weeks and the period between Round II and III was two weeks.

The surveys were pilot tested to establish the timeframe required to complete the questionnaires, the feasibility of the number of items in each round and the readability of the questions. As the aim was to develop a comprehensive overview of principles for best practice in this field, for Round I, 13 open-ended research questions were developed using guidelines in qualitative research practices (Agee, 2009). The questions were further refined by the research team (see Table 1). Respondents were instructed to consider the questions in relation to their experience working with male populations thought to have a major mental illness detained in high, medium or low secure forensic mental health hospital settings. Piloting the Round I items estimated completion time as 30 minutes, which is considered reasonable (Iqbal & Pipon-Young, 2009).

Table 1: Round I questions

1.	In your work with male populations detained in secure forensic mental health hospital settings, what might alert you to trauma-related presentations and/or trauma histories?
2.	In your experience how, if at all, are trauma histories identified?
3.	From your experience, are there factors that aid or hinder the recognition of trauma in this population?
4.	What terms do you use when describing trauma and why?
5.	What, if any, theoretical models inform how you think about trauma in this population?
6.	In your experience, what influences whether you explicitly assess for trauma?
7.	Do you use any formal trauma-related assessment tools or measures or had any challenges with their use?
8.	Where trauma is recognised, what factors influence whether you discuss/offer specific trauma treatment?
9.	What specific trauma interventions are offered in your service?
10.	Where trauma is recognised, what might the interventions hope to address?

11. When, within the care pathway (e.g. admission, during in-patient stay, discharge) should trauma be considered for treatment?
12. In your opinion, what role, if any, do other factors (e.g. gender, age, ethnicity, socioeconomic status) have on how trauma is detected or responded to in this population?
13. Are there things you would want to be emphasised in trauma-related treatment guidelines specifically for this population?

The qualitative data from Round I was analysed in line with the thematic analysis process (as described by Braun & Clarke, 2006). This generated 142 statements which were presented back to the participants in Round II (see Appendix E); this was in a questionnaire format with closed-ended response items using a 5-point Likert scale. The scale reflected 1 as indicating high disagreement and 5 as high agreement, and 3 as indicating neither. For reverse coded items, 1 indicated highly ineffective, 5 as highly effective and 3 as indicating neither. Participants also had the opportunity to select *don't know* as a response. Additionally, 3 open-ended items were included to allow for further comments not addressed (see Table 2). Consensus regarding agreement with the statements was assessed. Items where consensus was not reached in Round II were included in Round III of the survey (i.e. 89 items); participants were presented with the statements accompanied by a summary of the group ratings for each item and asked to rate them again. Within the Delphi method individual feedback regarding participant's previous responses, in addition to summary data for the whole group tend to be provided together. Respondents are then required to rate the items again but are able to keep their original scoring (Clibbens et al., 2012). However, as responses to this study were anonymised, this was not possible. Instead participants were given a summary of the overall group ratings and were asked to re-rate them and were informed that if they wished, they could provide the same answer they had previously provided. Piloting Round II (142 Likert scale responses, three open-ended items and the option to provide any

further comments) and Round III (89 Likert scale items and the option to provide any further comments) estimated a completion time of 25 minutes for each.

Table 2: Round II additional open-ended questions

1.	What factors if any, impact your decision to offer a trauma-focused intervention?
2.	[in response to the statement: *assist with the progression through the care pathway and out of hospital settings* as indicating an intervention goal] If you agree with this statement, please could you elaborate further
3.	[in response to the statement: *encourage behavioural change* as indicating an intervention goal] If you agree with this statement, please could you elaborate further

This Delphi study was conducted in English and was administered solely through a web-based programme using Online Surveys (Jisc, 2019). Participants were able to log on and off as many times as needed. The standard word limit set by the online programme was used. As recommended, there was a time limit for completion of the questionnaires (Skulmoski et al., 2007) as identified above.

2.4. Data analysis and the calculation of consensus

In order to make Delphi studies more empirically robust, methodical tools need to be used (Iqbal & Pipon-Young, 2009). In line with other relevant studies (e.g. Hackett et al, 2006) and recommendations (e.g. Iqbal & Pipon-Young, 2009), the qualitative data from Round I was assessed using thematic analysis (Braun & Clarke, 2006). The QSR International's NVivo 12 software was used to aid this process. The emerging themes from data was categorised in the form of statements on which consensus was to be assessed. The lead author coded the initial qualitative data to identify potential themes which were then reviewed with the research team who refined them further. In this type of qualitative study, the survey questions and the iteration process can potentially allow researchers to influence opinion. For example, question order and context effects have been noted to impact responses (Holbrook, 2008).

Similarly, another potential concern of the Delphi process might be the pressure to conform to group evaluations (Holbrook, 2008). Consultation with the research team was used to address possible issues of, for example, priming, leading and loaded questions.

The quantitative data from Round II and III were analysed according to the strength and extent of agreement using descriptive statistics. In line with the methodology of Hackett et al. (2006), the 5-point scale was collapsed into three categories. The strength of consensus for each item was calculated using the percentage, median and interquartile range (IQR i.e. 4-5 on the 5-point scale). For items where the *don't know* option had been selected, total percentages were calculated out of 6. Three items (negatively phrased) were scored in the reverse order (i.e. consensus was established using ratings 1-2). Some authors have suggested that establishing an agreement of 70% and over is adequate (Hsu & Sandford, 2007). Within this study the pre-determined cut-off of 80% (as used by Hackett et al., 2006, and To et al., 2014) was used to define the degree of agreement amongst the participants (i.e. using the IQR by combining Likert scale responses of 4 and 5). The statements were then separated into three categories, and in line with Hackett et al. (2006), these were: items that achieved *overall consensus*; those *approaching consensus* (though the 80% threshold was not met, there was still considerable backing); *divergence*, where divergent views were expressed (see Table 3 for the criteria used for grouping the statements).

Table 3. Consensus criteria using a 5-point Likert scale in line with the work of Hackett et al. (2006)

Category	Criteria
Consensus	$\geq$ 80% 4-5, with a median of 4-5 and an interquartile range of $\leq$1
Approaching consensus	70%-79% 4-5, with a median of 4-5 and an interquartile range of $\leq$2
Divergence	<69% 4-5, with a median of 4-5, with an interquartile range of <2

2.5 Ethical Considerations

The study protocol was reviewed and received ethical approval by the University of Edinburgh, School of Health in Social Science Ethics Committee (CLIN518; see Appendix A). The introductory emails and the PIS (see Appendix B) included information about the study, what participation involved, the approximate time required and that anonymity and confidentiality was assured. Accessing the survey, by clicking the personalised link, was taken as evidence of consent to participate (see Appendix C).

3. RESULTS

3.1 Demographics

Twenty-seven respondents meeting the inclusion criteria replied to the study recruitment invitation. Seventeen of those respondents completed Round I of the survey. The professional title of the participants in representative order were: Consultant Forensic Psychologist (41%, n=7); Clinical Psychologist (29%, n=5); Consultant Clinical Psychologist (12%, n=2); Consultant Clinical & Forensic Psychologist (12%, n=2); Clinical & Forensic Psychologist (5.8%, n=1). Eighty-two percent of respondents were female (n=14). The mean age was 45 years. The level of experience working with male populations in FMH services ranged from 3 to 25 years (with a mean of 12 years). The experience working with female populations in FMH settings ranged from 0 to 20 years (with a mean of 5.8 years). Seventy percent of participants had only worked with male populations. Of the 17 respondents who completed Round I, 15 (88%) took part in Round II and 11 (65%) completed Round III. The final response rate of 65% in this study was just below the recommended 70% (Iqbal & Pipon-Young, 2009). However, the response and

attrition rates appear comparable to what is reported elsewhere in the literature for surveys with health professionals (Lusk, Delclos, Burau, Drawhorn & Aday, 2007).

3.2. Data analysis and group consensus

For Round I, the thematic analysis (Braun & Clarke, 2006) applied to the qualitative data from the 13 open-ended questions (Table 1; see Appendix D for an extract of the data), produced 142 statements. These were presented in the Round II questionnaire (see Appendix E). Group ratings for Round II were assessed. Consensus (using the predetermined 80% cut-off together with the IQR and median scores) was reached for 37% (n=53) of the Round II items. Items not reaching consensus (n=89) were presented again in Round III. Following Round III, a further 58 items reached overall consensus. In total, 111 (78%) of the 142 statements reached overall group consensus. Several themes were identified regarding opinions around best practice considerations when working with trauma in male populations detained in FMH settings. In the following section, the results are categorised and discussed under the classifications of: (1) conceptualisation; (2) terminology preferences; (3) theoretical models informing practice; (4) trauma detection and assessment; (5) intervention decisions and aims; (6) guidelines and training. All statements produced in this study and their corresponding group ratings are presented within the tables in each section. Examples of specific comments that led to the development of the statements are referred to in the relevant sections. Some indicative comments from participants are also presented to demonstrate the reasons offered for some of their choices.

3.3. Conceptualisation

Fourteen statements were identified regarding factors that may alert to the possibility of trauma-related presentations in this population (Table 4). Broadly, these linked to: trauma and other mental health symptomology; behavioural and functional impairment; explicit awareness of trauma histories; interpersonal problems; offending behaviour. Eleven of the statements reached overall consensus. Most respondents appeared to place considerable emphasis on current trauma symptomology (e.g. participant 2 *"a startled response..."*; participant 3 "*unusual dissociative type gaps…").* Psychiatric diagnoses and co-morbidity also emerged as possible indicators of trauma-related presentations. Of the most frequently cited was substance use. This was identified either alone or linked to managing other symptomology (e.g. participant 1 "*substance abuse and other addictions*"; participant 15, "*emotional dysregulation (fear, anger, guilt, shame) and unhelpful ways of regulating emotions, substance use…"*). Distinctions and overlap of symptoms associated to major mental illnesses were also noted. For example, "*delusions and hallucinations linked to trauma experience…any depersonalisation, derealisation, dissociation when thinking about trauma event or reported by staff…differentiate from psychosis symptoms*" (participant 17). Some of the statements that reached overall consensus map on to the proposed complex PTSD diagnosis (ICD 11, 2018) as well as features of BPD. Such broad findings are aligned with the current trauma literature, where adverse and trauma-related experiences have been observed to pose cognitive, emotional and behavioural consequences for the individual (van der Klok, 2014) and associated to mental health diagnoses (e.g. Minsky et al., 2015; Perkonigg et al., 2016).

The explicit awareness of histories relating to adversity was also a theme that alerted respondents to possible trauma (e.g. participant 13 "*…history of loss, being a looked after child, family history of mental illness…*"). For some respondents, the explicit information provided by the individual was considered indicative of trauma (e.g. participant 11, "*self-disclosure from patient…";* participant 16 "*personal accounts*"). Functional impairment (participant 13 "*history of homelessness*") and issues relevant to interpersonal difficulties (e.g. participant 1, "…*problematic relationships with staff or other patients*…") were commonly stated. Offending behaviour was also identified within the data as indicating trauma (participant 4, "*criminal history*"; participant 17, "*a lot of violence…inappropriate sexual behaviour…").* However, the statement *Offending behaviour, including the need to be detained in secure settings and attracting related labels [e.g. mentally disordered offender]* achieved divergent views. This statement, as well as the two further items that did not reach consensus (relating to cognitive difficulties and reduced ability to self-care), appear as presentations that may be more difficult to assess without further information.

Table 4: Factors that indicate trauma-related presentations in this population (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Unhelpful ways of regulating emotions (e.g. substance use, self-injurious behaviours)	93.3	0.00	5
Adversity/trauma-related information documented in records (e.g. medical files; legal reports)	93.3	0.00	5
Presence of trauma related symptoms (e.g. dissociation; hyperarousal)	93.3	0.00	5
Self-disclosure of adversity/trauma symptomology	92.4	1.00	5
Suicidal thoughts/behaviours	90.9	1.00	5
Risk taking, impulsivity and sensation seeking type behaviours	90.9	0.00	4
Psychiatric diagnoses and/or co-morbidity	86.6	0.00	4
Physical health concerns that have no apparent physical basis	81.9	0.00	4
The nature of a person's psychosis (i.e. content of voices, nature of delusional beliefs)	81.9	1.00	4.5
Poor social-functioning (e.g. extensive unemployment; homelessness)	81.9	1.00	4
Difficulties managing interpersonal problems (including being challenging to manage within teams)	81.9	1.00	5

Overall Divergence	% rating 4-5	Interquartile rage	Median

Offending behaviour, including the need to be detained in secure settings and attracting related labels (e.g. mentally disordered offender)	54.6	1.00	4
Cognitive difficulties (e.g. poor concentration/memory)	54.6	1.00	4
Reduced ability to self-care	54.6	2.00	4

Two broad themes were identified around the awareness of adverse experiences and/or trauma histories; those being hypothesised (i.e. suspected) and/or those being formally known by services and clinicians. Information recorded in case notes, medical and/or other records that detailed a person's trauma-related history or adverse experiences (e.g. *participant 1, "…notes from previous hospitals, court etc."),* was frequently cited as a source of how histories of adverse experiences came to be known. Information obtained directly from clinical assessment interviews (at admission, routine or otherwise), including psychological assessments (e.g. participant 6, *"…in my experience this is part of a detailed psychological assessment and where I also undertake a trauma assessment as part of this…*"; participant 13 "…*contemporary assessments have a developmental lens of identifying trauma*…"), were identified as a process that also aided trauma recognition. According to some respondents, trauma assessments in this population were inadequate (e.g. participant 11; "[trauma is assessed] *usually badly…and inconsistently*"). However, as the focus was on developing a best practice framework, such responses, though acknowledged, did not generate corresponding consensus items.

All statements relating to factors that aid (six items; Table 5) and those that hinder (eight items; Table 6) the recognition of trauma achieved overall consensus. Those considered to aid, were related to the central placement of trauma and processes that helped gather relevant information (e.g. extended assessments), including experienced clinicians and the way services operate (e.g. collaborative team working). Factors identified as those that may

hinder the recognition of trauma however, might explain why some of the previous factors were considered important (e.g. participant 11, "…*asking directly* [about trauma*] or in a one off assessment (via PTSD questionnaire or direct questioning) is unlikely to elicit the true extent of their experiences and their meaning making…";* participant 14*, "the assessment process for example, too direct or intrusive questioning which is perceived as interrogating the person, anything which reduces the ability of the person to self-disclose…").* Additionally, factors related to circumstances where psychiatric diagnoses (e.g. co-morbidity), systemic factors (e.g. focusing on other needs) and/or socio-cultural viewpoints (e.g. stereotyped perceptions) may complicate its detection were also identified. Specifically, relevant to this population, were the statements an over focus on offending behaviour and acknowledging trauma may generate a fear of justifying offence behaviours.

Table 5: Factors that aid the recognition of trauma (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Experienced clinicians	100	0.00	5
Collaborative team working	100	0.00	5
Trauma informed services (e.g. conceptualising behaviour, including offending, through a trauma lens)	100	0.00	5
Positive therapeutic alliance	100	0.00	5
Consideration of trauma in routine inquiry	93.3	0.00	5
Extended assessments	93.3	1.00	5

Table 6: Factors that hinder the recognition of trauma (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
An over focus on diagnosing mental disorders	90.9	0.00	5
Complications relating to differential diagnoses of symptoms (e.g. flashbacks vs hallucinations)	90.9	1.00	5
An over focus on offending behaviour	90.9	1.00	5
Stereotyped perceptions regarding the impact of trauma in male populations	90.9	0.00	5
Prioritisation of other clinical needs (e.g. psychosis; risk)	90.9	0.00	5
Acknowledging trauma may generate a fear of justifying offence behaviours	90.9	1.00	4
A lack of information regarding adverse/traumatic experiences	86.6	1.00	5
An over-reliance on self-disclosure of trauma	81.8	1.00	5

3.4. Terminology preferences

A number of statements were identified regarding the use of terminology and their effectiveness. These related to two distinct categories; terms used in relation to people detained in secure FMH settings (8 items; Table 7) and those used with professionals (6 items; Table 8). Items reaching consensus when discussing trauma with individuals detained in secure settings (Table 7) indicate a preference for descriptive words/terms that emphasised the contextual nature of the adverse experiences, its impact on the person, as well as using the individuals own words. These seem to fit conceptually with the Power Threat Meaning Framework's proposition for the need to move closer to contextual and systemic understandings of people's problems (i.e. orientating broadly, from "what's wrong with you" to "what's happened to you", Johnston & Boyle, 2018, p8) that allows the individual to form their own narratives of their experiences. Similarly, though the statement was identified from the Round I data analysis, there was consensus that the use of the term *trauma* should not be avoided for concerns that it can have a negative impact on self-perception; though some authors have argued that trauma-related terms/diagnoses can lead to *victimised* identities (Summerfield, 2001).

Formal medical/diagnostic terms, including symptomology, were considered effective for discussing trauma with professionals but appeared less so with the individuals detained in secure settings. One argument that may help explain this, is the view that in-patient services have evolved aligned to the medical model (Frost et al., 2017). Diagnostic assessments according to The Royal College of Psychiatrists' Good Psychiatric Practice guide (2009) are considered important for communication purposes, decision making and in guiding available evidence-based treatment. To that extent, high consensus in the use of these terms, with

professionals at the least, appear to be considered effective by the panellists in this study. The language of mental illness (Corrigan, Markowitz & Watson, 2004) and diagnoses (Szasz, 2011) have been criticised for the stigma associated to labelling and for medical connotations that place the burden of responsibility on the individual. The findings here may suggest that within the UK, in regard to what is considered effective when interacting with people impacted by trauma in FMH settings, there may be a broader *paradigm shift* (e.g. Jone & Wesely, 2007) with regards to language used in the approach adopted by psychologist practitioners. A final consideration in this domain was that for both individuals detained in secure settings and professionals, academic terms (e.g. Type 1 trauma) were considered ineffective. This may be a reflection of the so-called research and practice gap, though related, may not always be accessible to the other (McIntyre, 2005).

Table 7: Effective terms at informing how *trauma* is discussed with people detained in secure settings (5-point Likert scale)

Overall Consensus	% rating 4-5 (Effective)	Interquartile rage	Median
Terms/descriptions that aim to place a person's difficulties in their environmental context (e.g. adverse childhood experiences; distressing life experiences)	100	0.00	5
Terms/descriptions that emphasise the distressing nature and significance of event(s) to the individual (e.g. traumatic; victimisation)	100	1.00	5
Terms/descriptions used by the person	100	1.00	5
Divergent views	**% rating 4-5 (effective)**	**Interquartile rage**	**Median**
Diagnostic terms if diagnostic thresholds are met (e.g. PTSD, Adjustment Disorder)	45.5	2.00	3
Overall Consensus	**% rating 1-2 (Ineffective)**	**Interquartile rage**	**Median**
Avoiding terms such as trauma as they may have a negative/limiting impact on a person's self-perception	80.8	1.00	1
Approaching Consensus	**% rating 1-2 (Ineffective)**	**Interquartile rage**	**Median**
Type 1, Type 2 or Complex Trauma, as used in the field	72.7	2.00	5
Terms that emphasise current symptoms (e.g. trauma symptomology; trauma response)	72.7	2.00	5

Table 8: Effective terms at informing how trauma is discussed with professionals working in secure settings (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Terms/descriptions that aim to place a person's difficulties in their environmental context (e.g. adverse childhood experiences; distressing life experiences)	100	1.00	5
Terms/descriptions that emphasise the distressing nature and significance of event(s) to the individual (e.g. traumatic; victimisation)	100	1.00	5
Terms/descriptions used by the person	93.3	1.00	5
Terms that emphasise current symptoms (e.g. trauma symptomology; trauma response)	81.8	1.00	5
Diagnostic terms if diagnostic thresholds are met (e.g. PTSD, Adjustment Disorder)	81.8	1.00	4

Overall Divergence	% rating 4-5	Interquartile rage	Median
Type 1, Type 2 or Complex Trauma, as used in the field	54.6	3.00	4

3.5. Theoretical models informing practice

Practitioners listed a range of theories as informing their practice when working with trauma in male FMH populations. These were categorised, as represented in Table 9 (nine items). The models which achieved the highest rate of consensus were those related to attachment theory. These were followed closely by models that emphasised systemic and interdisciplinary features (e.g. biopsychosocial). These statements may reflect that psychologists consider that a range of theoretical models can assist working with trauma. Trauma specific explanatory models and those relevant to trauma diagnoses did not reach consensus, however. This may be a reflection of the training needs and/or the professional background of the respondents. Alternatively, it may suggest the need for a general approach, or the inclination to utilise a range of theoretical models. A further consideration is that the trauma-informed approaches have emerged from research underpinned by neuroscientific perspectives (Bremner, 2006; Van der Klok et al., 2005); it has been argued, therefore, that trauma-informed practice may be another medicalised response to adverse experiences (Wastell & White, 2017). Theoretical models underpinning trauma-focused interventions also

achieved high consensus. Delivering interventions require relevant knowledge, competencies and, for some, accreditation (Faraquharson, Cohen-Tovee, Palmer, Hodge & Hildreth, 2017). Several responses from Round I, indicated some of the participants were accredited in particular interventions (e.g. participant 6 *"…I am an accredited EMDR therapist, so very focused on this*"). Therefore, familiarity with such models and their clinical utility may help explain the consensus in this context.

Table 9: Models that are effective at informing work with trauma in secure settings (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Attachment related models (e.g. Internal Working Model)	100%	1.00	5
Theoretical models relevant specifically to trauma-focused interventions (e.g. Eye-Movement Desensitisation and Reprocessing)	90.9	1.00	5
Explanatory models which recognise developmental disruptions relating to attachment, physiology and cognitions (e.g. biopsychosocial models)	90.9	1.00	5
Systemic and relational models	81.8	1.00	5
General explanatory models of mental illness/symptomology (e.g. stress vulnerability model)	81.8	0.00	4
Approaching Consensus	**% rating 4-5**	**Interquartile rage**	**Median**
Theoretical frameworks relevant to a diagnosis (e.g. PTSD) including those newly emerging (e.g. Developmental Trauma Disorder)	72.7	1.00	4
Explanatory models from other fields (e.g. social learning theory; evolutionary psychology)	63.7	1.00	4
Overall Divergence	**% rating 4-5**	**Interquartile rage**	**Median**
Explanatory models from other fields (e.g. social learning theory; evolutionary psychology)	63.7	1.00	4
Trauma related explanatory models (e.g. Traumagenic neurodevelopmental model)	54.6	1.50	4

3.6. Trauma detection and assessment

A number of statements were identified by the respondents about their views on detection and assessment of trauma in male populations detained in FMH settings. All statements regarding factors that should warrant the explicit assessment of trauma reached overall

consensus (see Table 10; eight items). These appear at one end related to detectable factors specific to the individual (e.g. presence of current trauma symptomology; known history of adverse experiences) and at the other, those that are more nuanced and variable, relating to systemic factors (e.g. where the teams consider individuals to be challenging/stuck). Presence in a secure forensic mental health setting also achieved overall consensus that should warrant the explicit assessment of trauma. This may be a reflection of the high rates of trauma presentations seen in the forensic population (e.g. Baranyi et al., 2018) and of the broader recommendation that screening for trauma should be a routine feature in mental health services to reduce the risk of under-detection (SAMHSA, 2014).

Table 10: Factors that should warrant the explicit assessment of trauma (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Presence of current trauma symptomology	100	0.00	5
Presence in a secure forensic mental health setting	100	1.00	5
If there is a known history of adversity/traumatic experiences	100	0.00	5
If cut-off scores are met on trauma-related psychometric measures	100	0.00	5
The extent to which trauma is considered to be impacting the person (e.g. their mental illness; risk)	100	0.00	5
If the person would be able to tolerate an assessment (e.g. stability of mental state)	93.3	1.00	5
Where teams consider individuals to be *challenging/difficult/stuck* etc.	90.9	0.00	5
If required to inform treatment planning	90.9	0.00	5

An important feature of clinical practice is the adoption of evidence-based tools to aid assessment (e.g. Hatfield & Ogles, 2004). A number of statements were identified relating to measurement tools used in the process of assessing trauma (Table 11; five items). Measures, as recommended by therapy models achieved the overall highest consensus. This may again relate to the training and professional background of the respondents. The clinical utility of the measures may also dictate their usage; for example, a key feature of some treatment models (e.g. Cognitive Behaviour Therapy) is to use assessment tools to monitor effectiveness

(e.g. symptomology). Measures assessing retrospective and current experiences of adversity and trauma symptomology also achieved overall consensus. Tools assessing other domains (e.g. depression) and the use of *no measures* achieved divergent views. Taken together, the opinions here fit with the recommendation of the need to be specific when screening/measuring trauma (SAMHSA, 2014). However, statements regarding the challenges of using measures/assessment tools (Table 12; 6 items) were identified and all reached overall consensus; these were mostly specific to male populations detained in FMH settings. The statement *no clear recommendations as to which measures should be used*, also achieved overall consensus. This may be a reflection of the on-going debates in the literature regarding how best to conceptualise the more complex type of trauma presentations (e.g. Resick et al., 2013; Hyland et al., 2017).

Table 11: Measures/assessment tools that should be used where trauma is suspected (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Measures recommended by the therapy model being delivered (i.e. trauma specific or otherwise)	100%	1.00	4
Measures of trauma symptomology (e.g. Trauma Symptom Checklist)	90.9	1.00	4
Measure of adverse experiences (e.g. Childhood Trauma Questionnaire)	81.8	0.00	4

Overall Divergence	% rating 4-5	Interquartile rage	Median
Use of other measures (e.g. Beck's Depression Inventory; including measures related to emotional distress, personality functioning etc.)	36.4	2.00	3

Divergent views	% rating 1-2 (Ineffective)	Interquartile rage	Median
No measures	45.5	2.00	3

Table 12: Challenges of using assessment tools/measures where trauma is suspected in this population (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Variability of trauma disclosure on questionnaires, particularly if the environment feels unsafe/unstable	100	0.00	5
Measures may not detect adverse experiences relevant to this population (e.g. homelessness)	100	0.00	5
Measures being normed on different populations	93.3	1.00	5
Difficulties with accessibility of the measures (e.g. literacy problems in this population)	90.9	0.00	5
Difficulty generally encouraging people from this population to complete measures	90.9	1.00	5
No clear recommendations as to which measures should be used	81.8	1.00	5

3.7. Intervention decisions and aims

Where trauma is identified and treatment warranted, a number of statements were rated regarding overall approaches to intervention and the stages within the care pathway at which respondents felt were appropriate to undertake trauma work. Nine statements (Table 13; 11 items) concerned when an intervention to address trauma-related difficulties should be explicitly discussed/offered. An individual's ability to engage was frequently cited in Round I (e.g. participant 1, "*client's ability to engage in the intervention*…"). The theme of the statements that reached overall consensus related to both person-specific (e.g. when the person is amenable for treatment) and practical considerations (e.g. if duration of admission permits the length of treatment). Statements that did not reach consensus related to circumstances involving other factors (e.g. when other clinical concerns need to be prioritised). Taken together, these results may suggest that if trauma intervention is considered to be warranted and the individual is able to engage, other factors should not necessarily prevent treatment from being offered.

Table 13: When should treatment to address trauma-related concerns be explicitly discussed/offered (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
When trauma is included in a person's formulation	100	1.00	5
If prior therapy has been accessed, particularly if transferred from other services	100	1.00	5
If the need to address trauma is related to risk and the need for secure services	100	0.00	5
If duration of admission permits the length of treatment	100	1.00	5
If the clinical team consider it appropriate at that time	90.9	1.00	4
When there is the availability of support from others (e.g. family, staff)	90.9	0.00	4
When person specific factors relevant to engaging in treatment are amenable (e.g. ability to provide informed consent, tolerate treatment at that time)	86.6	0.00	5
Presence of current trauma-related treatment needs	86.6	1.00	5
If a positive therapeutic alliance has been established	80	0.00	5

Overall Divergence	% rating 4-5	Interquartile rage	Median
If impacting the environment first has not been effective	27.3	2.00	3
When other clinical concerns do not need to be prioritised for treatment (e.g. risk; psychosis)	18.2	1.00	2

Ten statements (Table 14) were identified regarding the ideal time to deliver trauma-related interventions within the care pathway. The item reaching highest consensus related to establishing a stable and safe environment. This would fit with the phase-based intervention approach which recommend safety and stability as prerequisite for subsequent trauma exposure work (Herman, 1992). Items approaching consensus and those with divergent views also appear relevant to dynamic factors. This raises the question that if ideal circumstances (e.g. safety and stability, from the perception of the individual detained in the secure setting) are not achieved, but that trauma is identified as a clear treatment need, what approach might be most effective. There was also a sense from Round I responses that for some individuals the uncertainty about the duration of an admission can impact decisions (e.g. participant 10 "*…not at admission as still under assessment and may not stay in your service long term…").* This may explain why the statement "Integrated into the treatment decision-

making process from first contact with services" fell within the *approaching consensus* category.

Table 14: When, within the care pathway (e.g. admission, during in-patient stay, discharge) should treatment to address trauma be delivered (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
When a stable and safe environment is established and can best support the intervention	93.4	1.00	5
During periods of stability in mental health (e.g. not actively suicidal)	86.7	1.00	5
Whenever trauma symptoms are indicated	86.7	0.00	4
Whenever readiness to engage in treatment is indicated	86.7	1.00	5
At any stage but should be formulation led	80.6	1.00	4

Approaching Consensus	% rating 4-5	Interquartile rage	Median
Integrated into the treatment decision-making process from first contact with services	73.3	1.00	5
During in-patient stage	72.7	1.00	4

Divergent views	% rating 4-5	Interquartile rage	Median
Where relevant, when stabilised on psychotropic medication	63.6	1.00	4
Not prior to discharge as this can be destabilising (e.g. may increase risk)	27.3	2.00	3
During less restrictive stages of care	18.2	1.00	3

Nineteen interventions were identified as relevant treatment options for trauma-related presentations (Table 15). The phase-based intervention model (Herman, 1992) appeared to achieve the highest overall consensus. This was followed by other trauma-specific interventions. This may not be surprising given that the use of these have perhaps been heavily promoted in relevant guidelines (e.g. Eye-Movement Desensitisation and Reprocessing, EMDR, and Trauma Focused Cognitive Behavioural Therapy, TF-CBT, in MATRIX, 2014 and National Institute for Health and Care Excellence, NICE, 2018) and within the literature. Interestingly, the statement, trauma focused psycho-education as part of low intensity psychological therapy (including group work such as Survive & Thrive), approached consensus. Ratings in this section may be a reflection of the training and professional backgrounds of the respondents (participant 6 "*The specific intervention provided is*

dependent on the clinicians available"). Indeed, this section held the most diverse responses and received the highest number of *don't know* ratings. For example, Cognitive Information Processing Therapy had 60% of respondents indicating they did not know this intervention. However, in relation to recent NICE guidelines (2018), it has been recommended for working with trauma in adults and had been identified by some respondents from Round I. The evidence-base for interventions for the more complex and enduring trauma presentations are still gathering (see Karatzias et al., 2019 for a systematic review of interventions for complex PTSD). Furthermore, the delivery of psychological interventions in acute in-patient settings, where multiple and complex care needs are often apparent, may call for the more practice-based approaches (Small, Pistrang, Huddy & Willams, 2018; Bayne & Jinks, 2013). In addition, funding and resource issues (e.g. participant 1, "*experienced and qualified clinician";* participant 6, "*where I am based we are able to offer specific trauma interventions as per NICE guidelines…yet I am aware not all services offer this…";* participant 9 *"…low staffing limits staff capacity…*"; participant 10, "*the level of training relevant clinicians have…")* was also a theme that emerged throughout the survey.

The interventions identified by respondents relate to trauma-specific (e.g. Trauma Focused-Cognitive Behaviour Therapy) and those with borders remits including transdiagnostic (e.g. Acceptance & Commitment Therapy), as well as systemic ways of working (e.g. Promoting a trauma-responsive and psychologically informed environment as an intervention). One respondent also commented "…*I struggle a little with the concept of treatment only being individual…*" (participant 1). Such findings may reflect that psychologists see a range of interventions can assist working with trauma. Similarly, responses throughout reflected a clear role for formulation from a psychological perspective both in context of the individual

as well as within teams (e.g. promoting a trauma-responsive and psychologically informed environment as an intervention). This adheres with findings that show both individuals detained in in-patient settings as well as multidisciplinary staff may benefit from psychological formulations (Small et al., 2018). A preliminary study from the UK observed how utilising case formulations with multidisciplinary staff who worked within the criminal justice system, though limited to personality disorder presentations, increased knowledge and confidence of staff working with this population (Ramsden, Lowton & Joyes, 2014).

Participants were also asked "what factors, if any, impact your decision to offer a trauma-focused intervention?". Responses indicated that following guidelines and implementing evidence-based practice was important for related decision making (e.g. EMDR/CBT; participant 4, "*I think that importantly, the NICE guidelines need to be followed-which recognises only CBT for Trauma or EMDR. Whilst I can appreciate some therapies may help pave the way for the success of these therapies (such as DBT or emotion regulation work for distress tolerance*…"). A person's ability to engage, aim of stabilisation, resource installation and symptom recovery were also considerable themes that informed whether respondents provided trauma-specific interventions or not. The value of some models that allow for the development of *contextual formulations* (e.g. Cognitive Analytical Therapy, CAT) was also identified (e.g. participant 17, "*…use of contextual CAT formulation to think about trauma symptoms the staff witness…sometimes staff don't realise is a trauma symptom…").* The statement, *collaborative formulation as the main intervention*, did not reach consensus; 63.6% responded with a score of 3 indicating *neither* agreeing or disagreeing on the 5-point Likert scale. This finding may fit with the more traditional view of clinical formulations in that, if collaboratively developed, taking into consideration of idiosyncratic factors, formulations

should lead to intervention decisions (Macneil, Hasty, Conus & Berk, 2012), and therefore, on its own, did not reach consensus as to being an intervention by the panellists.

Table 15: The interventions to address trauma related concerns that should be considered (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median	Don't Know
Phased based Intervention Model (though the intervention may be limited to a particular phase, e.g. safety & stabilisation)	90.9	1.00	5	0
Eye Movement Desensitisation and Reprocessing	86.7	0.00	5	0
Emotion regulation skills	81.8	1.00	5	0
Promoting therapeutic alliance with key staff (e.g. nurses) as an intervention	81.8	1.00	5	0
Promoting a trauma-responsive and psychologically informed environment as an intervention	81.8	1.00	5	0
Trauma Focused Cognitive Behaviour Therapy	80	1.00	5	0

Approaching Consensus	% rating 4-5	Interquartile rage	Median	
Dialectical Behaviour Therapy	72.8	2.00	4	0
Trauma focused psycho-education as part of low intensity psychological therapy (including group work such as Survive & Thrive)	72.7	2.00	4	0
Integrative approaches	72.7	0.00	4	9.1

Divergent views	% rating 4-5	Interquartile rage	Median	
Acceptance Commitment Therapy	54.5	2.00	4	18.2
General psycho-education as part of low intensity psychological therapy (e.g. self-soothing skills)	54.6	2.00	4	0
Schema Therapy	45.5	2.00	3	9.1
Cognitive Analytical Therapy	45.5	2.00	3.5	9.1
Narrative Exposure Therapy	36.4	1.00	3	9.1
Cognitive Behaviour Therapy (including CBT for Psychosis)	36.4	1.00	3	0
Mentalisation Based Therapy	27.3	2.50	3	27.3
Collaborative formulation as the main intervention	18.2	0.00	3	
Cognitive Information Processing Therapy	10	2.50	2	60
Rational Emotive Behaviour Therapy	9.1	2.00	2	45.5

Thirteen statements (Table 16) were identified and rated in relation to intended treatment goals. The themes in this section related to: insight, understanding and belief systems as relevant to the adversity/trauma experiences; trauma-related symptomology (cognitions,

emotions, physical symptoms, behaviour); risk; engagement in the wider care system and improve social functioning. Items reaching the highest degree of consensus appeared to hold the aim of developing awareness and insight into trauma-related factors that can perpetuate and maintain a person in a cycle (Wong & Gordon, 2013). Developing skills to manage some of the more distressing features of trauma symptomology also achieved high consensus (e.g. participant 10, "*…to reduce distress associated with the trauma…"*). Responses also indicated addressing interpersonal ways of engaging with others and the system around them (e.g. participant 13, "*improve social functioning*"). Aims, as identified in the phased-based model (Herman, 1992), were commonly cited (e.g. participant 13, "*safety and stabilisation…remembering and mourning…reconnecting*").

A goal that reached overall consensus was the statement *assist with progression through the care pathway and out of hospital settings*. Respondents agreeing with this statement were asked to elaborate. Comments reflected that "*unresolved trauma can be a key factor in the offending/risk pathway, and if unresolved can then continue the risk (e.g. issues with irritability, use of substances, disconnection from others and own emotions). So, it can be a critical…for some individuals in order to progress them through their care pathway…*" (participant 5), and *"…trauma focused work can improve people's mental health and related risk which may facilitate their progression through the care pathway…"* (participant 11). The statement, *encouraging behaviour change*, also reached overall consensus. Respondents agreeing with this statement, were asked to elaborate. Some comments indicated that "*…because often individuals with history of trauma in forensic services get stuck-and they don't necessarily realise that they are expected to do things differently…"* (participant 6) and some examples were *"…less impulsivity, irritability…"* (participant 4)

Table 16: What the intervention goals should hope to achieve (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Assist in establishing a life worth living that is meaningful to the individual	100	0.00	5
Assist in developing awareness of challenging life situations (including those that might be re-traumatising)	100	1.00	5
Improve ability to engage in wider care pathway/treatment (including offence focused treatment)	100	0.00	5
Address key trauma related cognitions (e.g. I am weak; I let it happen)	100	0.00	5
Address key trauma related emotions (e.g. shame)	100	0.00	5
Provide skills management to cope with distress associated to trauma symptomology (hypervigilance, flashbacks, emotion dysregulation, window of tolerance etc.)	93.3	0.00	5
Assist with progression through the care pathway and out of hospital settings	93.3	0.00	5
Instil a sense of hope that things can be different	92.9	0.00	5
Increase ability to *live with* the experiences of trauma	90.9	0.00	5
Reduce risk (including risk of violence)	86.7	1.00	5
Validate and develop a meaningful narrative of adverse/traumatic life experiences	86.7	1.00	5
Encourage behavioural change	85.7	1.00	5
Improve ways of relating to others	80.1	1.00	5

3.8. Guidelines and training

A number of statements were identified and rated by respondents about their views on other considerations that may be important, particularly for training and guideline purposes. Some of the themes that were more specifically relevant to this population related to socio-cultural factors that may impact the detection and responses to trauma; four of the seven items in Table 17, which achieved overall consensus, relate to perception of gender norms and stereotypes that can impact how trauma may be perceived and/or responded to. Patterns of gender stereotypes and how it can impact individuals accessing the health care system has been explored in the literature (e.g. Searle, Hare, Davies & Morgan, 2018). Socioeconomic status was also a variable that was identified that could impact the detection and/or response to trauma. Similarly, comments in relation to marginalised and minority status also occurred throughout the survey that could indicate possible trauma (e.g. participant 1, *"…country of origin…";* participant 5, *"…arriving from another country…"),* but also the statement around

minority groups who may be less inclined to disclose trauma histories to those outside the group they identify with. These findings may be in line with reports that indicate, from different parts of the UK, ethnic minorities (Leese, Thornicroft, Shaw & Thomas, 2006; Bhui & Bhugra, 2002) and socio-economically disadvantaged populations (Barr, Kinderman & Whitehead, 2015) have been observed to be over-represented in secure mental health settings.

Table 17: Other factors (e.g. gender, age, ethnicity, socioeconomic status) that impact how trauma is detected and/or responded to in this population (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Social expectation that males with trauma struggle less than females with trauma	100	0.00	5
Minority groups may be less inclined to disclose to those outside the group they identify with	100	1.00	5
People from lower socioeconomic status may consider their own adversity/trauma experiences as the *norm*	100	0.00	5
Some adverse experiences in men may be considered more normative (e.g. exposure to violence)	90.9	0.00	5
Behavioural/emotional expressions of distress in males (including offence behaviours) may be considered more *bad* than trauma responses	80	1.00	5
Impact of shame on disclosure for male populations	80	1.00	5
Approaching Consensus	**% rating 4-5**	**Interquartile rage**	**Median**
Trauma in people from more privileged socio-economic backgrounds may not be as easily identified	72.8	1.00	4

Thirteen statements, all of which reached overall consensus, were rated as factors that would likely benefit male populations detained in secure settings if considered in relevant guidelines (Table 18). The themes related to: systemic factors relevant to the way services operate; conceptualisation of trauma presentations in this population; the limitations of current treatment approaches and the need for broader options; identification of training needs; importance of following guidelines and ensuring safe practice. The item *How services can*

become more trauma informed appeared to be an interesting statement, one that may reflect a misconception, as summarised by Sweeney and Taggart (2018), that "*it is sometimes assumed that trauma-informed approaches are primarily conceptual with fuzzy practice implications. However, trauma-informed approaches are an organisational change process operating at the whole systems level (Harris & Fallot, 2001)"* (p384-5). Change, therefore, may occur in stages and can take time to implement (Guarino et al., 2009). The results from this study align with general recommendations regarding trauma-informed practice (e.g. see Elliott, Bjelajac, Fallot, Markoff & Reed, 2005; SAMHSA 2014). Specifically, relevant to this population, however, may be the consideration to *promote better recognition that violence towards others can be an impact of adverse/traumatic experiences*.

Table 18: Factors that should be considered in trauma related guidelines for male populations in secure FMH settings (5-point Likert scale)

Overall Consensus	% rating 4-5	Interquartile rage	Median
Acknowledge the challenge that trauma is not always easy to define or detect	100	0.00	5
Reference a wide range of treatment options not limited to talking therapies (e.g. non-talking therapeutic approaches such as mindfulness, physical activity)	100	0.00	5
Recognition that it may not always be possible/appropriate to address trauma but other interventions to develop resilience can still be offered	100	0.00	5
Promote trauma assessment in routine enquiry	100	0.00	5
How services can become more trauma-informed	93.3	0.00	5
Awareness of the impact of environmental re-traumatisation (e.g. restraint)	93.3	0.00	5
Awareness of vicarious traumatisation for staff and patients	93.3	0.00	5
Promote training on attachment, brain development and the whole system-lifespan approaches	93.3	0.00	5
Treatment be delivered by qualified professionals with the provision of appropriate clinical supervision	93.3	0.00	5
Promote better adherence to trauma related treatment guidelines	93.3	0.00	5
Promote better recognition of more nuanced traumagenic experiences (e.g. acts of omission e.g. neglect, invalidation, compared to acts of commission e.g. sexual abuse)	93.3	0.00	5
Acknowledge trauma focused interventions may be necessary but can be insufficient	90.9	1.00	5
Promote better recognition that violence towards others can be an impact of adverse/traumatic experiences	86.7	0.00	5

4. Discussion

This Delphi study examined the opinions of practitioner psychologists regarding what a best practice model may entail when working with trauma in male populations detained in secure FMH settings. The responses to 13 open-ended questions by 17 psychologists from the UK were evaluated to consider the emerging themes. Following thematic analysis (Braun & Clarke, 2006), 142 items were generated from Round I. These were presented in Round II of the survey. To determine consensus, statements were rated on a 5-point Likert scale according to either *agreement* or the degree to which the statements were considered *effective*. Using the interquartile range, the cut-off for reaching group consensus was set at 80% and 60% or lower was considered indicative of divergent views. Fifteen respondents contributed to Round II and 53 items reached consensus in that round of the survey (37%). The 89 items that were either approaching consensus or had divergent views were entered into the Round III of the survey. Eleven respondents contributed to Round III; a further 58 items (out of the 89 items) reached consensus in the final round. In total, 111 statements in this study reached overall consensus (78%). The statements related to: conceptualisation; terminology preferences; theoretical models informing practice; trauma detection and assessment; intervention decisions and aims; guidelines and training. The discussion here will focus on the results as relating to: adverse experiences and trauma symptomology; psychological treatment needs; secure settings and the impact of gender norms.

4.2. Adverse experiences and trauma symptomology

The findings from this study indicate strong agreement among panellists that a range of mental health related difficulties in male populations detained in secure FMH settings can indicate a history of adverse experiences and/or trauma-related presentations (e.g. *psychiatric diagnoses and/or co-morbidity* as well as specific symptoms). These findings are in line with research that shows high rates of adverse experiences in people with SMI and the theoretical stance that these presentations may be part of post-traumatic adaptations (Minsky et al. 2015). Some of the statements reaching overall consensus map on to the current conceptual framework of the complex PTSD diagnosis (ICD 11, 2018). Interestingly, features indicative of borderline personality disorder (e.g. unhelpful ways of regulating emotions, difficulties managing interpersonal problems) also reached consensus. In a population who have been found to have multiple needs (Gow et al., 2010; Baranyi et al., 2019), the overlap of symptomology and co-morbidity, and the high rates of histories of adverse experiences is perhaps not surprising. Additionally, head injury and neurological deficits have been noted to be elevated in incarcerated population then the general populaiton (Williams et al., 2010) and this has been associated to violence as well as the assessed risk of violence in FMH patient populations (Brown, O'Rourke & Schwannauer, 2018). However, how this may complicate and interact with potential trauma-related presentations was not identified in the findings of this study.

The need to explicitly acknowledge adverse experiences and trauma symptomology appeared to be a repetitive consideration by respondents in context of trauma assessment decisions and those relevant to offering treatment. Research from other populations suggests that

acknowledgment may be beneficial (e.g. Perez et al., 2017; Sinclair & Gold, 1997). The information documented in records (e.g. medical files; legal reports), appeared to be one method by which this information was revealed, as was from self-disclosure. The central placement of trauma and processes that helped gather relevant information, including experienced clinicians and the way services operate (e.g. collaborative team working), were considered to improve trauma detection. Creating the conditions that allow those detained in secure settings to feel safe enough to disclose histories of adverse experiences was also identified. The association between exposure to adverse experiences and its consequences for mental health is a defining principle in which trauma-informed practice recommendations have emerged (Elliott et al., 2005; SAMHSA 2014;). Incarcerated populations, when compared to the general population, have been observed to have had elevated levels of exposure to adverse experiences (Wolff & Shi, 2012). Therefore, keeping the trauma considerations central in the assessment process within FMH services, as indicated by the results here, are in line with such guidance.

Respondents indicated a range of theoretical models that they rated as informative to their practice when working with trauma in male FMH populations. Trauma theory and research, though evolving over the last few decades, continues to be an area that is highly debated and, at times, controversial (e.g. Resick et al., 2013; Summerfield, 2001). Trauma specific explanatory models and those relevant to trauma diagnoses did not reach consensus, however. This may be a reflection of the training and/or the professional backgrounds of the respondents. Alternatively, these findings may reflect that the psychologists in this study considered a range of theoretical models in assisting working with trauma, that a generic approach may be useful and of the value in considering a variety of theoretical models. As

trauma-informed practice gradually becomes more formally implemented in mental health services and training programmes (e.g. NES, Scotland, 2019; NHS England, 2018), such views would be important to re-evaluate.

4.3. Treatment needs

Where trauma is identified and treatment warranted, a range of factors were identified by the panellists regarding treatment considerations. Statements that achieved consensus, regarding when to offer treatment, appeared related to person-specific and practical considerations (e.g. person's ability to engage; admission duration). Intervention goals, from the perspective of experts, related to insight, understanding and belief systems as relevant to adversity/trauma experiences; addressing trauma-related symptomology, risk needs and engagement in the wider care system. There is an increasing demand for services to demonstrate clinical outcomes (Clark et al., 2018). However, the goals being broader than symptom reduction alone (a common outcome recommendation; Arfken & Balon, 2014), may make it more difficult to quantify and/or monitor. Particularly where interpersonal, social adjustment and functioning goals (e.g. engagement with the wider care system) were identified. These did not necessarily map on to any of the specific assessment/measurement tools that had been identified. Patient-generated measures (also known as idiographic scales) in populations with multiple and complex needs may be better able to assess person-centred goals (Edbrooke-Child et al., 2016), though this did not emerge from the data. The variability in ratings of the treatment options considered is perhaps a reflection on the literature and the current stage of the evidence-base (see Karatzias et al., 2019 systematic review of complex PTSD related interventions). This may also tap into broader debates about the

requirement of establishing practice-based evidence, particularly for the more complex presentations (Bayne & Jinks, 2013). However, training needs, limitations of staffing, resource issues and how different services are likely to follow different guidelines and procedures also emerged as a potential issue that can impact delivery of psychological assessment and therapy.

Themes specific to this population, were that both features of mental health and risk needs were identified. The statement *offending behaviour, including the need to be detained in secure settings and attracting related labels (e.g. mentally disordered offender*) yielded divergent views as an indicator of trauma in male populations. However, in line with research reflecting an association between adverse experiences and offending (e.g. Maxfield & Widom, 1996; Baglivio et al., 2015; Fox et al., 2015), consensus was reached on an item encouraging recognition that violence towards others can be an impact of adverse experiences in relevant guidelines. An over focus on risk and other clinical needs (e.g. psychosis) was also identified as a factor that can hinder the detection of trauma.

4.4. Secure settings and the impact of gender norms

Secure FMH settings within the UK are established on a structured care pathway approach (Crichton, 2009). Statements from this study indicated person-specific factors and systemic considerations, where warranted, about the stage at which to offer and deliver interventions. Psychological therapy in acute-inpatient settings have been argued to need better promotion (Small et al., 2018). In settings with multiple dynamic factors (e.g. duration of admission), the opportunity to deliver these may also impact this decision. An important consideration for

offering psychological treatment in secure settings are issues of safety and stability. Though these ratings may be indicative of ideal situations, secure settings may not always be perceived in this way by the person being detained (e.g. Kubiak et al., 2017). Treatment goals specific to this population (e.g. reduce risk, including risk of violence, and assist with progression through the care pathway and out of hospital settings) also reached overall consensus.

Finally, training needs, related to perceptions of professionals (e.g. some adverse experiences in men may be considered more normative), may be more pronounced and relevant to this population and setting. An important consideration that emerged within the data was the impact of *shame*. The link between adverse experiences, trauma and shame has been explored and documented in the literature (e.g. Saraiya & Lopez-Castro, 2016). In this study, shame was considered to be a barrier to disclosing trauma-related experiences and in seeking treatment in this population as well as being a treatment consideration. This is relevant to the general population, but may be particularly relevant to consider for those detained in FMH settings. Gender stereotypes, biases and the stigmatisation, as relevant to male populations were also identified. These were related to issues of disclosure as well as to broader perceptions (e.g. violence is considered the *norm* in males). The continuation of such views can have particularly damaging consequences for forensic populations already considered to be socially marginalised and for community reintegration (e.g. Hirschfield & Piquero, 2010).

4.5. Study limitations

The findings here should be considered in light of the following limitations in line with those identified by other studies with similar methodologies (e.g. Hackett et al., 2006; Koukopulos et al., 2018). Participants in the current study were recruited from a cohort of experts with experience of clinical practice working with male populations detained in secure FMH settings. The purposive nature of recruitment meant that the results described here indicate the opinions of a group of psychologists, at one point in time from the UK, about their view of best practice in the field. Furthermore, given that the panel is crucial to the study, those responding to the recruitment message and subsequently taking part, were a self-selecting sample. It is possible this process introduces biases as some of the experts who were invited but declined to take part were not represented (Keeney et al., 2001). The attrition rate between the different phases of the study may be attributable to different factors (e.g. time demands), but can still impact the findings (Hsu & Sandford, 2007).

A sample size of 17 (in the first round) and 11 participants (in the third round) would be considered relatively small for a typical survey-related research project. However, these figures are reported to be acceptable for a Delphi approach (e.g. Iqbal & Pipon-Young, 2009). The Delphi method has also received criticism for the process used for assessing consensus, that is, providing group ratings and allowing the amendment of responses, can itself produce convergence (Keeney et al., 2001). Items considered to be outliers may also be eliminated in the process of analysis (Vazquez-Ramos, Leahy & Hernandez, 2007) but may have, for example, been important to consider for a best practice framework. Within this study, consensus was defined as agreement among the respondents according to a pre-set

threshold (i.e. > 80%). However, if a different criteria and/or threshold had been set, it may have led to different conclusions (Kerns et al., 2018). For example, respondents were instructed to rate statements according to agreement/effectiveness, whereas had they been required to rate or order according to importance/prioritisation in comparison to other items, different rates of consensus may have been observed (Hackett et al, 2006).

Though all participants had relevant knowledge and experience working as psychologists in secure FMH settings, variation in the training and remit of the different professional roles has been noted (e.g. clinical psychologist, forensic psychologist; Bayne & Jinks, 2013) and may have impacted the results. On the other hand, given that guidelines within the UK that recommend multidisciplinary (MDT) systems of working in forensic mental health services (e.g. The Care Programme Approach, NHS, 2016), views of practitioners from other disciplines were not represented. In future research, opinions of multidisciplinary practitioners may be important to assess, as, for example, the emphasis placed on certain points by psychologists may or may not be shared by the wider professional community who also work in FMH settings and refer people for psychological interventions.

Other limitations identified by comparable studies (e.g. Hackett et al., 2006; Koukopulos et al., 2018) were also applicable here; though respondents were asked about their opinions, this may not necessarily translate into what they are able to do within their work (e.g. due to resource issues) and wider considerations (e.g. public views; Mancini & Budd, 2015) that may impact service delivery for male populations detained in secure FMH settings. Nonetheless, the iterative approach adopted in the Delphi method has also been argued to be a motivating

approach, one that increases knowledge and generates novel ideas (Powell, 2003). The findings here may represent the ambitions of practitioner psychologists about more ideal practices.

5. Conclusion

The current study provides suggestions about consensus regarding features of best practice by practitioner psychologists when working with trauma in male populations detained in secure FMH settings. As with any specialist mental health setting, different populations can have distinct and varied care needs. Male populations, detained in secure FMH settings, thought to have trauma-related presentations can from one view be seen as distinct with their treatment needs guiding assessment and intervention decisions. The findings in this study indicates a complicated picture with regards to understanding the impact of exposure to adverse experiences and how *trauma* may be conceptualised by clinicians; a broad range of presentations were considered to be indicative of trauma history/symptomology. Though some statements which reached overall consensus, are applicable to all populations considered to have trauma-related presentations, the consequences may be more extreme for male populations who come into contact with FMH services (*e.g. risk taking, impulsivity and sensation seeking type behaviours).* In accordance with other findings, as part of treatment and rehabilitation needs, features of mental health and offending needs were identified and, at times, appeared interlinked. The findings also reflect that psychologists in this study considered a range of theoretical models that assisted their work with trauma in this population. With regard to interventions adopted, the results here suggest variable

consensus. However, this may not be surprising given the challenges described in literature on the conceptualisation of complex presentations and the interventions that may be effective for them (e.g. Resick et al., 2013). Gender stereotypes and issues relating to shame as an area that can be improved within FMH as relevant to male populations, seemed to be important consideration for training and guideline purposes. Overall, the findings here may be a reflection of the broader so-called *paradigm shift* with regards to the conceptualisation of psychological trauma that has occurred in 20th centaury (Jone & Wesely, 2007). As trauma-informed practice gradually becomes more formally implemented in mental health services and training programmes across the UK (e.g. NES, Scotland, 2019; NHS England, 2018), such views, as relevant to male populations detained in FMH settings would be important to re-evaluate.

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CHAPTER 3

THESIS APPENDICES

APPENDIX A: ETHICAL APPROVAL FOR EMPIRICAL STUDY

SCHOOL of HEALTH IN SOCIAL SCIENCE
CLINICAL AND HEALTH PSYCHOLOGY

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Canan Bektas
Trainee Clinical Psychologist (DClinPsychol)
School of Health in Social Science
University of Edinburgh

22 June 2018

Dear Canan,

Application for Level 1 Ethical Approval

Reference: CLIN518
Project Title: A Delphi study exploring consensus in 'best practice' when working with trauma and male offender populations in secure forensic mental healthcare settings
Academic Supervisor: Ethel Quayle

Thank you for submitting the above research project for review by the Department of Clinical and Health Psychology Ethics Research Panel. I can confirm that the submission has been independently reviewed and was approved on the 11th June 2018.

Should there be any change to the research protocol it is important that you alert us to this as this may necessitate further review.

Yours sincerely,

Kirsty Gardner
Administrative Secretary, Clinical Psychology

APPENDIX B: EMPIRICAL STUDY, PARTICIPANT INFORMATION SHEET

PARTICIPANT INFORMATION SHEET

Consensus in best practice when working with trauma in male mentally disordered offender populations in secure forensic mental healthcare settings: A Delphi study

Lead Researcher: Canan Bektas (Trainee Clinical Psychologist)
Organisation: University of Edinburgh
Academic Supervisor: Prof. Ethel Quayle
Clinical Supervisor: Dr. Louise Tansey, Orchard Clinic, NHS Lothian

You are being invited to take part in research exploring best practice when working with trauma in male mentally disordered offender populations. This research is being conducted as part fulfilment for the Doctoral Programme in Clinical Psychology, University of Edinburgh. Before you decide to take part it is important you understand why the research is being conducted and what it will involve. Please take time to read the following information carefully.

WHAT IS THE PURPOSE OF THE STUDY?

The purpose of the study is to explore expert opinion on how trauma is detected and responded to in male mentally disordered offender populations with major mental illnesses who are detained in high, medium and low secure mental health settings. We are keen to explore what a good practice model in these settings should entail. The results from the study will be written as part of an academic thesis and submitted to an academic journal. This study has been reviewed and approved by the University of Edinburgh, School of Health in Social Science Ethics Committee (Reference: CLIN518).

WHY HAVE I BEEN INVITED TO TAKE PART?

You have been invited to take part because you are a psychologist working in a forensic mental health care setting with male offender populations or have relevant research experience.

DO I HAVE TO TAKE PART?

No – it is entirely up to you. If you do decide to take part, please keep this Information Sheet and complete the Informed Consent Form to show that you understand your rights in relation to the research, and that you are happy to participate. You are still free to withdraw at any time and without giving a reason. Please contact the lead researcher if you seek to withdraw from the study at a later date. Deciding not to take part or withdrawing from the study will not affect your employment or legal rights in any way.

WHAT WILL HAPPEN IF I DECIDE TO TAKE PART?

As part of the Delphi process there will be two or possibly three rounds of survey questions approximately within 4 to 6 weeks of each other. Round 1 will include 13 open-ended questions with space to enter a written response and should take approximately 20 to 30 minutes to complete. Subsequent rounds will present a number of predominantly closed-ended Likert scale items, and possibly further open-ended items. The Bristol Online Survey system will be used to allow access to the questionnaire at a time and place that is convenient

to you. A personalised ink for each participate consenting to take part will be created. Features on the programme will be used to anonymise all responses so that as the researchers we will not know who has provided which response.

WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

By sharing your experiences with us, you will be helping us to better understand factors that impact current practice in relation to detecting and responding to trauma in male mentally disordered offender populations based in secure mental health settings. Items on the survey that reach consensus between participants will allow us to consider what a best practice model in this setting should look like.

ARE THERE ANY RISKS ASSOCIATED WITH TAKING PART?

There are no risks associated with participation.

WHAT IF I WANT TO WITHDRAW FROM THE STUDY?

If, at any stage, up to the analysis of the data, you no longer want to be part of the study, please contact Canan Bektas via email: s1687365@sms.ed.ac.uk or Canan.Bektas@nhs.net giving your unique identifier. Your data will be removed from the analysis and deleted.

DATA PROTECTION AND CONFIDENTIALITY

Your data will be processed in accordance with Data Protection Law (including the GDPR and the Data Protection Act 2018). All information collected will be kept strictly confidential. The Bristol Online Survey system will be used to anonymise your responses, your data in our records will be referred to by a unique participant number rather than by name. Your data will only be viewed by the research team. All electronic data will be stored on a password-protected computer file and any paper records will be stored in a locked filing cabinet. Your consent information will be kept separately from your responses in order to minimise risk.

WHAT WILL HAPPEN WITH THE RESULTS OF THIS STUDY?

The results of this study may be summarised in a doctoral thesis, published articles and presentations. All findings will anonymised and data from the survey may be kept for future research.

WHO CAN I CONTACT?

If you have any further questions about the study, or would like this document on tape, in Braille, large print and various computer formats please contact the lead researcher, Canan Bektas via email s1687365@sms.ed.ac.ukor Canan.Bektas@nhs.net .

If you have any concerns about any aspects of the research, you can contact the research supervisor Prof. Ethel Quayle via email on Ethel.Quayle@ed.ac.uk . If you have any further problems or complaints about the study then please contact Prof. Charlotte Clarke, Head of the School of Health in Social Sciences, via email at Charlotte.Clarke@ed.ac.uk .

In your communication, please provide the study title and detail the nature of your complaint.

For general information about how we use your data go to:
https://www.ed.ac.uk/records-management/privacy-notice-research

APPENDIX C: EMPIRICAL STUDY, PARTICIPANT CONSENT FORM

PARTICIPANT CONSENT FORM

Study Title: **Consensus in best practice when working with trauma and mentally disordered male offender populations in secure forensic mental healthcare settings: A Delphi study.**

If you decide to take part in the study you will need to read the consent statements below and provide your consent to participate.

1. I confirm that I have read and understood the Participant Information Sheet for the above study.

2. I have been given the opportunity to consider the information provided and ask questions.

3. I understand that my participation is voluntary and that I can ask to withdraw at any time up to the report being written without giving a reason and without my employment or legal rights being affected.

4. I understand that my anonymised data will be stored for a minimum of 5 years and may be used in future ethically approved research.

5. I agree to take part in this study.

If you wish to take part in this research, you can consent to participate by clicking the link below which will take you to the survey.

APPENDIX D: ROUND I RESPONSES, EXAMPLE OF EXTRACT

7 In your experience, what influences whether you explicitly assess for trauma?

Showing all 17 responses
In regards to whether they have experienced traumatic situations - How much is already known about patient, e.g. whether they are new to service or have been in secure services a long time and a history has already been taken - presentation at point of admission or commencement of work, - level of engagement of patient In regards to whether they are displaying a current trauma response: - presentation and behaviour - engagement in therapy - progress in therapy
If identified in formulation then further assessment is conducted
Presence in a secure setting
My knowledge that it is such a key factor for male mentally disordered offenders (and other client groups). I would assess everyone I work with for trauma through routine enquiry.
The extent to which it appears to have influenced the mental illness and offending. Whether is highlighted as a treatment need. Whether it comes up on a psychometric measure as significant.
I think that, for myself, it is more that I am an accredited EMDR therapist, and so I am very tuned to this. Yet, I also look to determine explanations for behaviour, with a working hypothesis that there could be PTSD/Trauma (and where I then look to discount this).

APPENDIX E: ROUND II SURVEY

This survey was presented online

The Round II survey includes 142 closed-ended Likert scale items and 3 open-ended questions regarding working with trauma in male populations detained in secure forensic mental health settings. We hope that the items in this study which reach consensus across a panel of experts will allow us to consider what a 'best practice' model should entail.

Please review the following statements in relation to your experience working with male populations considered to have a major mental illness and who are detained in high, medium or low secure forensic mental health hospital settings.

The term 'trauma' is used here to denote experiences/stressors that were prolonged, repeated, where escape was difficult and resulted in direct harm, neglect or abandonment. These are considered to be adverse experiences occurring at developmentally vulnerable times (Courtois & Ford, 2009).

Please note you are able to log on multiple times and can do so by clicking the "finish later" option at the bottom of the page.

Please indicate your opinion by rating the following items on a scale of 1 to 5 (e.g. 1 to indicate strongly disagreeing and 5 to indicate strongly agreeing) in relation to the factors identified:

Conceptualisation

Factors that indicate trauma related presentations in this population:

		1 Strongly Disagree ←- ----→ 5 Strongly Agree					
1	Offending behaviour, including the need to be detained in secure settings and attracting related labels (e.g. 'mentally disordered offender')	1	2	3	4	5	DK
2	Psychiatric diagnoses and/or co-morbidity	1	2	3	4	5	DK
6	The nature of a person's psychosis (i.e. content of voices, nature of delusional beliefs)	1	2	3	4	5	DK
4	Unhelpful ways of regulating emotions (e.g. substance use, self-injurious behaviours)	1	2	3	4	5	DK
5	Presence of trauma related symptoms (e.g. dissociation; hyperarousal)	1	2	3	4	5	DK
6	Suicidal thoughts/behaviours	1	2	3	4	5	DK
7	Physical health concerns that have no apparent physical basis	1	2	3	4	5	DK
8	Risk taking, impulsivity and sensation seeking type behaviours	1	2	3	4	5	DK
9	Difficulties managing interpersonal problems (including being challenging to manage within teams)	1	2	3	4	5	DK
10	Adversity/trauma-related information documented in records (e.g. medical files; legal reports)	1	2	3	4	5	DK
11	Poor social-functioning (e.g. extensive unemployment; homelessness)	1	2	3	4	5	DK
12	Cognitive difficulties (e.g. poor concentration/memory)	1	2	3	4	5	DK
13	Reduced ability to self-care	1	2	3	4	5	DK

14	Self-disclosure of adversity/trauma symptomology	1	2	3	4	5	DK

Factors that hinder the recognition of trauma in this setting:

		1 Strongly Disagree ←- -→ 5 Strongly Agree					
15	An over focus on diagnosing mental disorders	1	2	3	4	5	DK
16	Complications relating to differential diagnoses of symptoms (e.g. flashbacks vs hallucinations)	1	2	3	4	5	DK
17	A lack of information regarding adverse/traumatic experiences	1	2	3	4	5	DK
18	An over-reliance on self-disclosure of trauma	1	2	3	4	5	DK
19	An over focus on offending behaviour	1	2	3	4	5	DK
20	Stereotyped perceptions regarding the impact of trauma in male populations	1	2	3	4	5	DK
21	Prioritisation of other clinical needs (e.g. psychosis; risk)	1	2	3	4	5	DK
22	Acknowledging trauma may generate a fear of justifying offence behaviours	1	2	3	4	5	DK

Factors that aid the recognition of trauma in this setting:

		1 Strongly Disagree ←- - -→ 5 Strongly Agree					
23	Consideration of trauma in routine inquiry	1	2	3	4	5	DK
24	Experienced clinicians	1	2	3	4	5	DK
25	Collaborative team working	1	2	3	4	5	DK
26	Trauma informed services (e.g. conceptualising behaviour, including offending, through a trauma lens)	1	2	3	4	5	DK
27	Positive therapeutic alliance	1	2	3	4	5	DK
28	Extended assessments	1	2	3	4	5	DK

Terminology

How effective are these terms at informing how 'trauma' is discussed with **people detained** in secure settings:

		1 Ineffective ←-- -→ 5 Highly Effective					
29	Terms/descriptions that aim to place a person's difficulties in their environmental context (e.g. adverse childhood experiences; distressing life experiences)	1	2	3	4	5	DK
30	Terms/descriptions that emphasise the distressing nature and significance of event(s) to the individual (e.g. traumatic; victimisation)	1	2	3	4	5	DK
31	Type 1, Type 2 or Complex Trauma, as used in the field	1	2	3	4	5	DK
32	Terms that emphasise current symptoms (e.g. trauma symptomology; trauma response)	1	2	3	4	5	DK
33	Diagnostic terms if diagnostic thresholds are met (e.g. PTSD, Adjustment Disorder)	1	2	3	4	5	DK
34	Terms/descriptions used by the person	1	2	3	4	5	DK
35	Avoiding terms such as 'trauma' as they may have a negative/limiting impact on a person's self-perception	1	2	3	4	5	DK

How effective are these terms at informing how 'trauma' is discussed **with professionals** working in secure settings:

		1 Ineffective ←--→ 5 Highly Effective					
36	Terms/descriptions that aim to place a person's difficulties in their environmental context (e.g. adverse childhood experiences; distressing life experiences)	1	2	3	4	5	DK
37	Terms/descriptions that emphasise the distressing nature and significance of event(s) to the individual (e.g. traumatic; victimisation)	1	2	3	4	5	DK
38	Type 1, Type 2 or Complex Trauma, as used in the field	1	2	3	4	5	DK
39	Terms that emphasise current symptoms (e.g. trauma symptomology; trauma response)	1	2	3	4	5	DK
40	Diagnostic terms if diagnostic thresholds are met (e.g. PTSD, Adjustment Disorder)	1	2	3	4	5	DK
41	Terms/descriptions used by the person	1	2	3	4	5	DK

Theoretical concepts

How effectively do the following models inform work with trauma in secure settings:

		1 Ineffective ← -→ 5 Highly Effective					
42	Theoretical models relevant specifically to trauma-focused interventions (e.g. Eye-Movement Desensitisation and Reprocessing)	1	2	3	4	5	DK
43	Theoretical frameworks relevant to a diagnosis (e.g. PTSD) including those newly emerging (e.g. Developmental Trauma Disorder)	1	2	3	4	5	DK
44	Trauma related explanatory models (e.g. Traumagenic neurodevelopmental model)	1	2	3	4	5	DK
45	General explanatory models of mental illness/symptomology (e.g. stress vulnerability model)	1	2	3	4	5	DK
46	Attachment related models (e.g. Internal Working Model)	1	2	3	4	5	
47	Explanatory models from other fields (e.g. social learning theory; evolutionary psychology)	1	2	3	4	5	DK
48	Explanatory models which recognise developmental disruptions relating to attachment, physiology and cognitions (e.g. biopsychosocial models)	1	2	3	4	5	DK
49	Systemic and relational models	1	2	3	4	5	DK

Assessment

Factors that should lead to the explicit assessment of trauma:

		1 Strongly Disagree ←-- -→ 5 Strongly Agree					
50	Presence of 'current' trauma symptomology	1	2	3	4	5	DK
51	Presence in a secure forensic mental health setting	1	2	3	4	5	DK
52	If identified in the persons formulation						
53	If there is a known history of adversity/traumatic experiences	1	2	3	4	5	DK
54	If cut-off scores are met on trauma-related psychometric measures	1	2	3	4	5	DK
55	The extent to which 'trauma' is considered to be impacting the person (e.g. their mental illness; risk)	1	2	3	4	5	DK
56	Where teams consider individuals to be 'challenging'/'difficult'/'stuck' etc.	1	2	3	4	5	DK
57	If required to inform treatment planning	1	2	3	4	5	DK
58	If the person would be able to tolerate an assessment (e.g. stability of mental state)	1	2	3	4	5	DK
59	If a positive therapeutic alliance has been established	1	2	3	4	5	DK

Which type of measures/assessment tools should be used where trauma is suspected:

		1 Strongly Disagree ←- - -→ 5 Strongly Agree					
60	Measures of trauma symptomology (e.g. Trauma Symptom Checklist)	1	2	3	4	5	DK
61	Measure of adverse experiences (e.g. Childhood Trauma Questionnaire)	1	2	3	4	5	DK
62	Use of other measures (e.g. Beck's Depression Inventory; including measures related to emotional distress, personality functioning etc.)	1	2	3	4	5	DK
63	Measures recommended by the therapy model being delivered (i.e. trauma specific or otherwise)	1	2	3	4	5	DK
64	No measures	1	2	3	4	5	DK

Challenges to the use of assessment tools/measures where trauma is suspected in this population:

		1 Strongly Disagree ←- - -→ 5 Strongly Agree					
65	Measures being normed on different populations	1	2	3	4	5	DK
66	No clear recommendations as to which measures should be used	1	2	3	4	5	DK
67	Difficulties with accessibility of the measures (e.g. literacy problems in this population)	1	2	3	4	5	DK
68	Variability of trauma disclosure on questionnaires, particularly if the environment feels unsafe/unstable	1	2	3	4	5	DK
69	Measures may not detect adverse experiences relevant to this population (e.g. homelessness)	1	2	3	4	5	DK
70	Difficulty generally encouraging people from this population to complete measures	1	2	3	4	5	DK

<u>Interventions</u>

When treatment to address trauma should be explicitly discussed/offered:

		1 Strongly Agree ←- --→ 5 Strongly Agree					
71	When trauma is included in a person's formulation	1	2	3	4	5	DK
72	When person specific factors relevant to engaging in treatment are amenable (e.g. ability to provide informed consent, tolerate treatment at that time)	1	2	3	4	5	DK
73	If prior therapy has been accessed, particularly if transferred from other services	1	2	3	4	5	DK
74	Presence of current trauma-related treatment needs	1	2	3	4	5	DK
75	If impacting the environment first has not been effective	1	2	3	4	5	DK
76	When other clinical concerns do not need to be prioritised for treatment (e.g. risk; psychosis)	1	2	3	4	5	DK
77	If the need to address trauma is related to risk and the need for secure services	1	2	3	4	5	DK
78	If the clinical team consider it appropriate at that time	1	2	3	4	5	DK
79	If duration of admission permits the length of treatment	1	2	3	4	5	DK
80	When there is the availability of support from others (e.g. family, staff)	1	2	3	4	5	DK

Trauma here, is considered to impact "*…a person's inter-personal, emotional and cognitive functioning and….the potential for trauma to precipitate clinically significant mental health difficulties and to be associated with a range of mental health diagnoses…*" (NES, National Trauma Training Framework, 2017).

Please review the following items in situations where trauma histories and/or current trauma-related presentations (e.g. interpersonal difficulties; symptomology) are explicitly acknowledged.

In your opinion, please indicate your agreement with the intervention that should be considered:

		1 Strongly Disagree ←- -→ 5 Strongly Agree					
81	Trauma Focused Cognitive Behaviour Therapy	1	2	3	4	5	DK
82	Narrative Exposure Therapy	1	2	3	4	5	DK
83	Phased based Intervention Model (though the intervention may be limited to a particular phase, e.g. safety & stabilisation)	1	2	3	4	5	DK
84	Rational Emotive Behaviour Therapy	1	2	3	4	5	DK
85	Eye Movement Desensitisation and Reprocessing	1	2	3	4	5	DK
86	Dialectical Behaviour Therapy	1	2	3	4	5	DK
87	Schema Therapy	1	2	3	4	5	DK
88	Cognitive Behaviour Therapy (including CBT for Psychosis)	1	2	3	4	5	DK
89	Acceptance Commitment Therapy	1	2	3	4	5	DK
90	Cognitive Analytical Therapy	1	2	3	4	5	DK
91	Cognitive Information Processing Therapy	1	2	3	4	5	DK
92	Mentalisation Based Therapy	1	2	3	4	5	DK
93	General psycho-education as part of low intensity psychological therapy (e.g. self-soothing skills)	1	2	3	4	5	DK
94	Trauma focused psycho-education as part of low intensity psychological therapy (including group work such as Survive & Thrive)	1	2	3	4	5	DK
95	Integrative approaches	1	2	3	4	5	DK
96	Collaborative formulation as the main intervention	1	2	3	4	5	DK
97	Emotion regulation skills	1	2	3	4	5	DK
98	Promoting therapeutic alliance with key staff (e.g. nurses) as an intervention	1	2	3	4	5	DK
99	Promoting a trauma-responsive and psychologically informed environment as an intervention	1	2	3	4	5	DK

Additional Question:
What factors, if any, impact your decision to offer a trauma focused intervention?

<u>Intervention and goals</u>

The intervention goals should hope to:

		1 Strongly Disagree ←- -→ 5 Strongly Agree					
100	Provide skills management to cope with distress associated to trauma symptomology (hypervigilance, flashbacks, emotion dysregulation, window of tolerance etc.)	1	2	3	4	5	DK
101	Validate and develop a meaningful narrative of adverse/traumatic life experiences	1	2	3	4	5	DK
102	Address key trauma related cognitions (e.g. I am weak; I let it happen)	1	2	3	4	5	DK
103	Address key trauma related emotions (e.g. shame)	1	2	3	4	5	DK
104	Improve ways of relating to others	1	2	3	4	5	DK
105	Improve ability to engage in wider care pathway/treatment (including offence focused treatment)	1	2	3	4	5	DK

106	Reduce risk (including risk of violence)	1	2	3	4	5	DK
107	Instil a sense of hope that things can be different	1	2	3	4	5	
108	Increase ability to 'live with' the experiences of trauma	1	2	3	4	5	DK
109	Assist in establishing a life worth living that is meaningful to the individual	1	2	3	4	5	DK
110	Assist in developing awareness of challenging life situations (including those that might be re-traumatising)	1	2	3	4	5	DK
111	Assist with progression through the care pathway and out of hospital settings If you agree with this statement, please could you elaborate further:	1	2	3	4	5	DK
112	Encourage behavioural change If you agree with this statement, please could you elaborate further:	1	2	3	4	5	DK

<u>Awareness & Education</u>

Trauma should be considered for treatment:

		1 Strongly Disagree ←- - -→ 5 Strongly Agree					
113	When a stable and safe environment is established and can best support the intervention	1	2	3	4	5	DK
114	At any stage but should be formulation led	1	2	3	4	5	DK
115	During periods of stability in mental health (e.g. not actively suicidal)	1	2	3	4	5	DK
116	Where relevant, when stabilised on psychotropic medication	1	2	3	4	5	DK
117	Whenever trauma symptoms are indicated	1	2	3	4	5	DK
118	During in-patient stage	1	2	3	4	5	DK
119	Whenever readiness to engage in treatment is indicated	1	2	3	4	5	DK
120	During less restrictive stages of care	1	2	3	4	5	DK
121	Not prior to discharge as this can be destabilising (e.g. may increase risk)	1	2	3	4	5	DK
122	Integrated into the treatment decision-making process from first contact with services	1	2	3	4	5	DK

Other factors (e.g. gender, age, ethnicity, socioeconomic status) that impact how trauma is detected and/or responded to in this population:

		1 Strongly Disagree ←- - -→ 5 Strongly Agree					
123	Social expectation that males with trauma struggle less than females with trauma	1	2	3	4	5	DK
124	Some adverse experiences in men may be considered more normative (e.g. exposure to violence)	1	2	3	4	5	DK
125	Behavioural/emotional expressions of distress in males (including offence behaviours) may be considered more 'bad' than trauma responses	1	2	3	4	5	DK
126	Impact of shame on disclosure for male populations	1	2	3	4	5	DK
127	Minority groups may be less inclined to disclose to those outside the group they identify with	1	2	3	4	5	
128	Trauma in people from more privileged socio-economic backgrounds may not be as easily identified	1	2	3	4	5	DK
129	People from lower socioeconomic status may consider their own adversity/trauma experiences as the 'norm'	1	2	3	4	5	DK

Factors that should be considered in trauma related guidelines:

		1 Strongly Disagree ←- - -→ 5 Strongly Agree					
130	*How* services can become more trauma-informed	1	2	3	4	5	DK
131	Awareness of the impact of environmental re-traumatisation (e.g. restraint)	1	2	3	4	5	DK
132	Awareness of vicarious traumatisation for staff and patients	1	2	3	4	5	DK
133	Promote training on attachment, brain development and the whole system-lifespan approaches	1	2	3	4	5	DK
134	Treatment be delivered by qualified professionals with the provision of appropriate clinical supervision	1	2	3	4	5	DK
135	Promote better adherence to trauma related treatment guidelines	1	2	3	4	5	DK
136	Acknowledge the challenge that trauma is not always easy to define or detect	1	2	3	4	5	DK
137	Promote better recognition of more nuanced 'traumagenic' experiences (e.g. acts of omission e.g. neglect, invalidation, compared to acts of commission e.g. sexual abuse)	1	2	3	4	5	DK
138	Promote better recognition that violence towards others can be an impact of adverse/traumatic experiences	1	2	3	4	5	DK
139	Reference a wide range of treatment options not limited to talking therapies (e.g. non-talking therapeutic approaches such as mindfulness, physical activity)	1	2	3	4	5	DK
140	Acknowledge trauma focused interventions may be necessary but can be insufficient	1	2	3	4	5	DK
141	Recognition that it may not always be possible/appropriate to address trauma but other interventions to develop resilience can still be offered	1	2	3	4	5	DK
142	Promote trauma assessment in routine enquiry	1	2	3	4	5	DK

APPENDIX F: JOURNAL AUTHOR GUIDELINES

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https://www.tandfonline.com/action/authorSubmission?show=instructions&journalCode=ufmh20#checklist

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