



School of Psychology

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A Meta-Review exploring Adverse Childhood Experiences (ACEs) and Eating Disorders and a Grounded Theory Analysis Investigating experiences of Negative Childhood Events and the Anorexic Voice

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My darling Maureen, I am so sad that you are not here to celebrate. Writing this thesis on the last gift you gave me has kept you close and with me all the way. This thesis is dedicated to you. I hope I have made you proud.

*'As the river flows
Gently to the sea
Darling so we go
Some things were meant to be'*

Preface

Over 700,000 people in the UK develop an eating disorder every year, 90% of whom are female. The aetiology of eating disorders is not fully understood but is generally considered to involve a combination of genetic, neurobiological, and sociocultural factors. Research has also indicated that adverse childhood experiences (ACEs) may be influential in the development of eating disorders, but the reviews present conflicting results.

Paper one reports a meta-review of the literature which aimed to better understand the link between ACEs and eating disorders. ACEs have been defined as ‘potentially traumatic events or chronic stressors that occur before the age of 18 and are uncontrollable to the child’ (Felliti et al., 1998). These experiences have been linked to the development of mental health difficulties in adulthood. One suggested potential vulnerability for developing an eating disorder is experiencing early traumatic and stressful events in childhood. Previous systematic reviews (SR) and meta-analyses (MA) have investigated the association between individual types of childhood adversity and eating disorders. However, the results drawn are inconsistent and inconclusive, with differing definitions and assessment tools. This makes understanding the association difficult thus limiting our understanding of the associations between ACEs and eating disorders. This paper builds on previous reviews by including a narrative synthesis of results and a quality assessment using the Assessment of Multiple Systematic Reviews 2 (AMSTAR 2; Shea et al., 2017) with the aim of providing clarity on conclusions. Results from high-moderate quality reviews show a link between certain ACEs concepts, such as abuse, and a range of later eating disorder symptoms and diagnoses. The implications of these findings are discussed.

Another poorly understood aspect of eating disorders is the anorexic voice (AV), in which a large proportion of people with Anorexia Nervosa describe hearing an internal voice related to body shape, exercise and calorie intake.

Paper two reports a grounded theory analysis of individuals' perceptions of the role of negative childhood experiences on the AV. Twelve women took part in a semi-structured interview which explored their experience of the AV, their childhood, and their emotions. The interview material was analysed using constructivist grounded theory. This approach acknowledges the role of the researcher in the analysis process and fits with the researcher's position on the social construction of knowledge and understanding. The theory that emerged posits that the AV provides a sense of safety amid life experiences that generate a sense of unsafety. However, the safety provided by the AV is conditional, and in this way mirrors a perfectionistic coping style. A further insight is that the relational dynamics of the AV appear to reflect the adversity encountered in earlier relational experiences. The AV reinforces obedience with praise but becomes hostile when disobeyed. This activates individuals' unpleasant emotions from childhood, such as guilt and disgust. Following a similar strategy when attempting to placate abusers or bullies in childhood, individuals adopt a submissive position to the critical and attacking AV. Gradually, the AV strengthened individuals' self-identity as being 'anorexic'. The analyses provided support for existing theories relating to AN, and corroborated previous empirical findings.

Methodological limitations are discussed in both papers, such as being unable to confirm Anorexia Nervosa diagnoses with a professional due to recruitment limitations. Despite this, there are methodological strengths to this LSRP, including an exploratory method to understand a poorly researched phenomenon. This LSRP has implications for clinical psychology and the wider healthcare context, which are discussed.

Preface wordcount – 566

Paper 1
**Associations between Adverse Childhood Experiences (ACEs) and
Eating Disorders: A Meta-Review**

Word Count Abstract: 250

Word count excluding tables, figures and references: 7,904

This paper is prepared in accordance with the author guidelines for *International journal of Eating Disorders* (Appendix A). For the purposes of thesis submission, the DClinPsy word limit of 8000 words has been used to ensure all relevant information could be demonstrated. APA 7th style has been used for references. Tables and Figures have also been embedded in the main body of the paper, however will be placed in supplementary information for journal submission.

**Associations between Adverse Childhood Experiences (ACEs) and Eating
Disorders: A Meta-review**

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Abstract

Objective: Adverse childhood experiences (ACEs; Felitti et al., 1998) have been linked to the development of mental health difficulties in adulthood. One potential vulnerability for developing an Eating Disorder is experiencing early traumatic events in childhood (Solmi et al., 2020). Systematic reviews and meta-analyses have been published on the effects of ACEs. Health care providers and policymakers look to this literature to provide a coherent overview and guide decision making. However, reviews vary in their quality and provide conflicting results.

Method: A meta-review of 13 systematic reviews and/or meta-analyses was conducted on the association between ACEs and Eating Disorder symptoms and diagnoses. To ensure a transparent and systematic approach, this paper adhered to the PRISMA statement (Moher, Liberati Tetzlaff & Altman 2009) and preregistered a protocol with PROSPERO. A narrative synthesis was employed to describe the methodology and conclusions of the included reviews. The Assessment of Multiple Systematic Reviews 2 (AMSTAR 2; Shea et al., 2017) was used to assess quality.

Results: Four high-moderate quality reviews demonstrated that ACEs are associated with Eating Disorder symptoms and diagnoses. However, firm conclusions about subcategories of ACEs are not demonstrated from the existing evidence due to a lack of reporting of specific ACEs and statistical controls to pinpoint the effects of individual ACEs.

Discussion: Based on these findings, it is recommended that clinicians assess for the impact of ACEs in individuals with eating disorders. High quality research is recommended that allows for the unique effects of individual types of ACE to be discerned.

Introduction

Eating disorders (EDs) affect over 1.25 million people in the UK, 75% of whom are female (UK; Beating Eating Disorders, 2021). Diagnostic and Statistical Manual of Mental Disorders (DSM–5) identifies four main categories of EDs: Anorexia Nervosa (AN), Bulimia Nervosa (BN), Binge Eating Disorder (BED) and Other Specified Feeding or Eating Disorder (OSFED) (American Psychiatric Association [APA], 2013). The current evidence base (National Institute for Health and Care Excellence [NICE], 2018) indicates that there are several effective psychological interventions for EDs, such as Cognitive Behavioural Therapy. Nevertheless, many continue to present with difficulties following intervention. Causes, triggers, and risk factors are complex, and often vary between individuals and ED subcategories. A comprehensive understanding of the risk factors underlying these presentations is essential to best support intervention (Cooper, 2012).

One identified vulnerability for developing an ED is experiencing early traumatic and stressful events in childhood (Solmi et al., 2020). The study of adverse childhood experiences (ACEs; Felitti et al., 1998) was the first to demonstrate a framework of numerous connections between childhood adversity and chronic mental and physical health conditions in adulthood within a framework of healthcare expenses. ACEs have been defined as ‘potentially traumatic events or chronic stressors that occur before the age of 18 and are uncontrollable to the child’ (Felitti et al., 1998). Exposure to ACEs has commonly been operationalised in research as a ten experiences: domestic violence; parental separation/divorce; having a parent with a mental health condition;

being the victim of abuse (physical, sexual and/or emotional); being the victim of physical or emotional neglect; having a member of the household in prison; and growing up in a household where adults use drugs or alcohol harmfully. One of the main criticisms of the ACEs model is that it might lead to important socioeconomic factors being overlooked (Taylor-Robinson et al 2018, Anderson, 2019). Another criticism is that the differential experience of adversity across racial and ethnic subgroups has been largely absent from the ACEs literature, despite a widespread understanding that disadvantage is not distributed equally across groups (Maguire-Jack et al., 2020). There has been an attempt to expand ACEs to include a more diverse population and additional adversities occurring in communities, such as poverty and bullying (Finkelhor et al., 2013).

Data examining the prevalence of ACEs in England and Wales has highlighted that one in five adults (8.5 million people) have experienced at least one form of abuse, including witnessing domestic violence (ONS, 2020). In addition, 481,000 adults have experienced physical neglect (ONS, 2020). A Public Health Wales report suggested that if no individuals in Wales experienced an ACE, there would potentially be a 27% reduction in reports of poorer adult mental health (Public Health Wales, 2016). This acknowledgement has led Scotland and Wales to aim to become the ‘first ACE-Aware Nations’ (ACEawareScotland, 2018; ACEawareWales, 2019).

Childhood trauma has been the most widely researched in terms of EDs (Afifi et al., 2017; Seubert & Viridi, 2018; Quilliot et al., 2019; Rai et al., 2019). Rodriguez et al. (2005) found that 45% of the patients with EDs had a history of sexual abuse or other forms of childhood abuse,

while Carter et al. (2006) found that 48% of the inpatients in an ED unit reported a history of childhood sexual abuse. On the other hand, some ACEs are relatively poorly investigated, e.g., neglect (Allison et al., 2007; Coffino et al., 2020). The quality of these reviews has also not been explored in relation to EDs, nor has there been any attempt to refine whether the same concepts are being measured across reviews.

The evaluation of adversities and EDs presents certain problems, the first being difficulties with defining adversities under the framework of ACEs. Childhood adversity is a term that has been used due to terms such as abuse, maltreatment and trauma often being used interchangeably (Corso et al., 2008; Heitkemper et al., 2011; McLaughlin et al., 2019). Individual components of ACEs are also used interchangeably. For example, child emotional abuse is also named in the literature as psychological abuse (Infurna et al. 2016) and emotional trauma (Fernandes & Osorio, 2015). A potential cause of this interchangeability is the criticism that reliance on the definition of adversity by Felitti et al. (1998) obscures efforts to widen and deepen understanding of adverse conditions and experiences affecting children's development. Inconsistency in terminology and definitions leads to difficulties in comparison and collation of empirical findings.

A related problem is how the construct of ACEs has been conceptualised and defined across and within studies (Trottier & MacDonald, 2017). Some studies have considered all childhood abuse together as a single construct, whereas other studies have differentiated between different types of ACEs, e.g. abuse and physical and/or emotional neglect (Trottier & MacDonald, 2017). It is a challenge for studies to consider isolated effects of particular ACEs, as individuals often

experience overlapping adversities occurring simultaneously (Chartier et al., 2010). For example, emotional abuse is thought to underlie all other ACEs, although it can also occur independently (Browne & Winkleman, 2007). In addition, it is common for sexual abuse to be accompanied by some form of physical abuse (Pérez-Fuentes et al., 2013). There are indications of a dose-response effect of the number of childhood adversities on the severity of EDs (Guillaume et al., 2016), suggesting that each adversity adds extra risk or has an interactive effect in the development of ED. Adversities also occur in context, such as neglect in the context of poverty (Bywaters et al., 2016), which makes it difficult to disentangle their unique effects.

The second challenge in evaluating the association between adversities and EDs is that reviews have included articles reporting several different tools for measuring ACEs. The ACEs questionnaire was derived from the ACEs Study of Felitti and colleagues (1998). Unfortunately, several concerns have been raised regarding its validity, reliability, and response interpretability (McLennan et al., 2020). One critique is that a systematic process does not appear to have been utilised in the selection of items, furthermore, additional ACEs were not included e.g. bullying (Finkelhor et al., 2015). This has potentially led researchers and clinicians to seek other, more accommodating assessment tools such as the Childhood Trauma Questionnaire (Bernstein et al., 1997) or the World Health Organisation ACE International Questionnaire (ACE-IQ) which include additional adversities such as bullying, war and parental death (WHO, 2018). Many additional child adversity tools have been developed and tested for validity and reliability with the goal of improving these measures (Saini et al., 2019). However, the multitude of assessment tools now available to measure the same construct makes drawing clear conclusions of any

association between ACEs and EDs difficult as it raises the question of whether the same constructs are being compared.

The current review

Previous systematic reviews (SR) and meta-analyses (MA) have investigated the association between individual types of childhood adversity and EDs. However, the results drawn are inconsistent and inconclusive, with differing definitions, assessment tools, and variable attempts to consider the unique effects of specific ACEs. This makes understanding the association between ACEs and EDs difficult. This review builds on previous reviews by conducting a meta-review, or review of reviews (Hartling et al., 2012). The aim is to synthesise the evidence and compare findings across SRs and MAs to provide a summary of the current information available that takes review quality into account. The meta-review will also attempt to summarise the highest-quality evidence with regard to variables that mediate the association between ACEs and EDs, and evidence for the unique impact of specific types of ACE where possible. A meta-review based on quality appraisals might allow for identifying the reasons for conflicting conclusions between existing reviews. The clinical implications resulting from the current literature, as well as the broader implications for public health initiatives, will be discussed.

Method

Protocol and Registration

This meta-review was conducted using the Preferred Reporting Items of Systematic Reviews and Meta-analysis (PRISMA) guidelines (Moher et al., 2009). A pre-written protocol was registered on the international prospective register of systematic reviews (PROSPERO, CRD42021243891; Appendix B).

Systematic Literature Search

A systematic literature search was conducted in five databases including PsycInfo, MEDLINE, Web of Science, Cochrane and Scopus. The reference lists of included reviews were also searched. An academic librarian was consulted in developing the primary search strategy. Full search strategies are included in Appendix E. The search strategy was adapted for the different databases.

Eligibility Criteria

Reviews were selected based on the criteria illustrated in Table 1. The term ACEs here refers to the definition of ‘potentially traumatic events or chronic stressors that occur before the age of 18 and are uncontrollable to the child’ (Felliti et al., 1998). This incorporates a broad set of adverse childhood experiences that include abuse (emotional, physical, or sexual), neglect (emotional or physical), serious household dysfunction (e.g. witnessing domestic violence, household member drug use, family member mental illness, and parental separation and incarceration), and peer, community, and collective violence (World Health Organization, 2016).

There were no restrictions placed on the year of publication or age restriction. The primary outcome for the present systematic review was the association between ACEs and EDs.

Table 1

Inclusion and exclusion criteria applied to each review

Considerations	Inclusion	Exclusion criteria
Adverse Childhood experiences	Reviews focusing on ACEs (based on definition above)	Focusing on adversity in adulthood
	Studies including an outcome measure of ACE (e.g. Childhood Trauma Questionnaire)	Studies that have not focused on the factors associated with ACEs (e.g. genetics and epigenetics, McDonald, 2019)
		Studies whose main focus has not been ACEs (e.g. Treatment outcome)
Eating Disorders	Reviews focusing on investigating eating disorders or disordered eating	Studies not investigating eating disorders or disordered eating
Review Type	Systematic Reviews and Meta Analyses	Non-review articles
	Peer reviewed research and able to access full text	Studies which do not report the analysis methods employed
	Mixed methods design	‘Grey’ Literature
Language	Studies written or translated into English	Studies written in another language or not translated into English

Review Selection

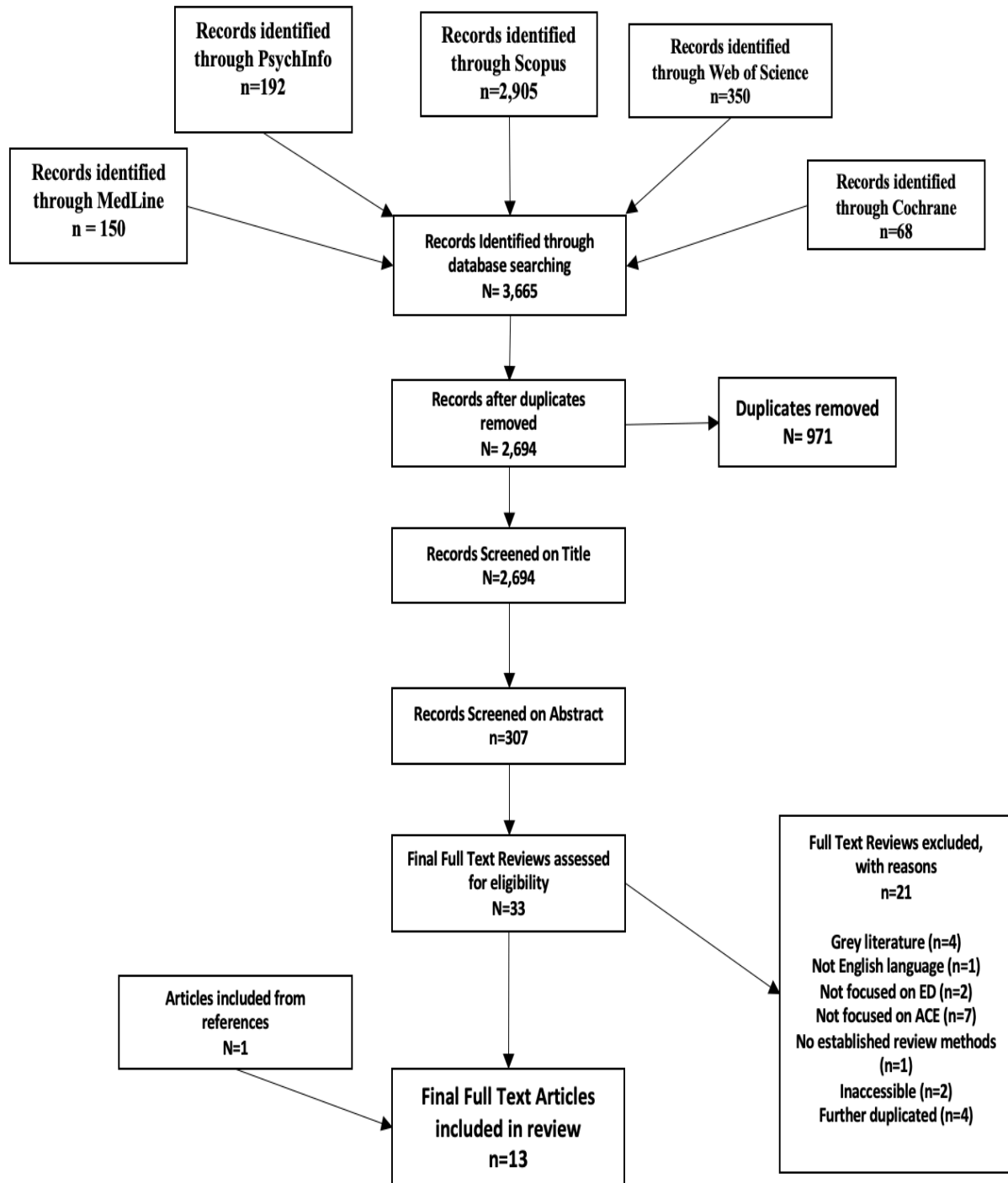
Eligibility assessment was performed by the first author. After extracting all the results from each database, duplicate references were removed. Titles and abstracts were then screened against the inclusion criteria and studies that clearly did not meet criteria were removed. Full text reviews of the remaining studies were read to determine whether full inclusion criteria were met.

Results of the Search Strategy

The search strategy used the preferred reporting items for SRs and MAs (PRISMA; Moher et al., 2009), shown in Figure 1. The first author reviewed all titles, abstracts and read full text (if applicable). Of the 13 studies, half were selected and reviewed by two independent reviewers (both clinical psychologists in training) to assess their adherence to inclusion and exclusion criteria. No discrepancies were found during this process.

Figure 1

PRISMA flow diagram of search process and selection strategy (Moher et al., 2009)



Quality Assessment

Eligible SR and MAs were assessed for their methodological quality using the Assessment of Multiple Systematic Reviews 2 rating scale (AMSTAR 2, Shea et al. 2017). The AMSTAR 2 contains 16 items to appraise the methodological aspects of reviews. The reliability of the AMSTAR-2 as a quality assessment tool for meta-reviews has been assessed and found to be valid and reliable (Lorenz et al.,2019). The authors designed the tool not to provide an overall score but to assess whether a domain should be considered critical or non-critical in determining review quality, as an overall score can mask critical weaknesses in specific domains. The items deemed critical for the current review are outlines in Table 2.

The AMSTAR 2 was designed for critically appraising reviews of health care interventions, and many of the items included were not appropriate for the current review. For the purposes of the current aims, the research team decided to modify the tool to be more applicable to the eligible reviews in review (Table 2).

Table 2

AMSTAR2 Critical and Non critical Domains included in the current review

Item	Domains
1	Did the research questions and inclusion criteria for the review include the components of PICO? (modified)
2 (Critical)	Was there an explicit statement that the review methods were established prior to conduct of the review and did the report justify any significant deviations from the protocol?
4 (Critical)	Did the review authors use a comprehensive literature search strategy?
5	Did the review authors perform article selection in duplicate?
6	Did the review authors perform data extraction in duplicate?
7 (Critical)	Did the review authors provide a list of excluded studies and justify the exclusions? (modified)
8	Did the review authors describe the included studies in adequate detail?
9 (Critical)	Did authors use a satisfactory technique for assessing Risk of Bias (RoB), and did they include high RoB studies in their MA/SR? Did they discuss this?
10	Did the review authors report on the sources of funding for the studies included in the review? (Merged with item 16)
14	Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?
15 (critical)	If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?

The authors suggest rating the overall quality using the following suggested criteria (Shea et al., 2017, p. 6):

- High - The systematic review includes zero or one non-critical weakness. Specifically, the review offers an “accurate and comprehensive summary of the results of the available studies”
- Moderate – The systematic review has no critical weaknesses but more than one non-critical weakness. “It may offer an accurate summary of the outcomes of the available studies that were included in the review”
- Low – The systematic review has one critical weakness with or without non-critical weaknesses: The review includes a critical weakness and potentially does not offer an accurate and comprehensive overview of the included studies.
- Critically low – The systematic review has more than one critical weakness with or without non-critical weaknesses. The review has two or more critical weaknesses and should not be relied on to provide an accurate and comprehensive summary of the available studies.

The reviewer performed the quality appraisal for all the included reviews. A second and third rater (two clinical psychologists in training) were recruited to independently rate six of the reviews. Agreement between the raters was 100% for these reviews (See Appendix C)

Quality of Included Reviews

The quality assessment of included reviews is presented in Table 5 (below). Overall, three reviews were rated as high quality (Grogan et al., 2020; Norman et al., 2012; Molendijk et al., 2017) and one review was moderate quality (Menzel et al., 2010). Five reviews were assessed as low quality (Caslini et al., 2016; Chen et al., 2010; Kimber et al., 2017; Pignatelli et al., 2017; Wonderlich et al., 1997). Four reviews were critically low quality (Connors & Morse, 1993; Lie et al., 2019; Pope & Hudson, 1992; Smolak & Murnen, 2002).

The aim of this meta-review is to synthesis the current evidence to better understand any association between ACEs and EDs. In keeping with this assessing quality was not used to exclude studies. Instead, the quality ratings were utilised to provide an insight into the standard of the research used in the synthesis

Table 3

AMSTAR-2 Quality Assessment

Authors	PICO	Explicit statement and justification of review methods/protocol	Comprehensive literature search strategy	Article selection in duplicate	Data extraction in duplicate	Excluded studies and justify the exclusions	Describe studies in adequate detail	Assessing RoB	Funding and potential sources of conflict of interest	Heterogeneity	Publication bias	QUALITY
Caslini et al. (2016)	Yes	Yes	Partial Yes	Yes	Yes	Yes	Partial Yes	No	Yes	Yes	Yes	Low
Chen et al. (2010)	Yes	Yes	Partial Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Low
Connors and Morse (1993)	Yes	No	No	No	No	Yes	Yes	No	No	No	No MA	Critically Low
Grogan et al.(2020)	Yes	Yes	Yes	Yes	Yes	Yes	yes	No MA	Yes	Yes	No MA	High
Kimber et al. (2017)	Yes	No	Yes	No	Yes	Yes	Yes	No MA	Yes	No MA	No MA	Low
Lie et al. (2019)	No	No	Yes	Yes	Yes	Yes	Partial Yes	Yes	No	Yes	No	Critical Low
Menzel et al. (2010)	Yes	Yes	Partial Yes	Yes	Yes	Yes	Partial Yes	Yes	No	Yes	Yes	Moderate
Molendijk et al. (2017)	Yes	Yes	Partial Yes	Yes	Yes	Yes	Partial Yes	Yes	Yes	Yes	Yes	High

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Norman et al. (2012)	Yes	Yes	Partial Yes	Yes	Yes	Yes	Partial Yes	Partial Yes	Yes	Yes	Yes	High
Pignatelli et al. (2017)	Yes	Yes	Partial Yes	No	No	Yes	Yes	Partial Yes	No	Yes	No	Low
Pope and Hudson (1992)	Yes	Partial Yes	No	No	No	No	Yes	No MA	No	No MA	No MA	Critically Low
Smolak and Murnen (2002)	Yes	Yes	No	No	No	No	Yes	No	No	Yes	No	Critically Low
Wonderlich et al. (1997)	Yes	No	Partial Yes	Yes	Yes	Partial Yes	Partial Yes	No MA	No	No MA	No MA	Low

*RoB = Risk of Bias, PICO = Population, Intervention, Comparator, Outcome. **BOLD** = Critical Domain

Critical Domains

Most reviews conducted a comprehensive search of the literature and provided justification for excluded articles. Six reviews completed or partially completed a risk of bias assessment and discussed the implications of results. Additionally, four reviews did not provide an explicit statement of a predetermined protocol nor register the protocol.

Three reviews (Chen et al., 2010; Molendijk et al., 2017; Norman et al., 2012) assessed risk of bias using the Newcastle Ottawa Scale (Wells et al., 2010). None of these reviews used the quality assessment as inclusion/exclusion criterion. Norman et al. (2012) included a quality effects model statistic that assigned greater weight to studies of high quality versus studies of lesser quality. Grogan et al. (2020) used the Mixed Methods Appraisal Tools (MMAT; Hong et al., 2018). Kimber et al., (2017) used the Quality in Prognosis Studies (QUIPS; Hayden, van der Windt, Cartwright, Cote & Bombardier, 2013).

Non-Critical Domains

All reviews, except Lie et al. (2019), described the required elements of the PICO (Population, Intervention, Comparison, Outcome). Twelve reviews described articles in sufficient detail. Seven reviews declared their source of funding and/or no conflict of interest. All but one review met the heterogeneity criteria. The majority of reviews either did not perform data selection or extraction in duplicate.

All but two of the reviews (Lie et al., 2019; Pignatelli et al., 2017) that performed a MA included an assessment of publication bias. Lie et al., (2019) noted that due to the low number of effects sizes reported in the primary studies the review was unable to assess publication bias.

Most reviews tested for statistical heterogeneity reviews (Caslini et al., 2016; Chen et al., 2010; Lie et al., 2019; Menzel et al., 2010; Molendijk et al., 2017; Norman et al., 2012; Smolak & Murnen, 2002). Three reviews did not test for heterogeneity (Connors & Morse, 1993; Pope & Hudson, 1992; Wonderlich et al, 1997).

Review Overlap

Overall conclusions and results may be biased as many articles are included in more than one review. To assess and understand the potential impact of this overlap, the degree of overlap within and between reviews was measured using the validated Corrected Cover Area (CCA) method (Pieper et al., 2014). A CCA score of 0–5 is considered slight overlap, 6–10 moderate, 11–15 high and >15 very high (Pieper et al., 2014). Over the thirteen reviews, there was a total of three hundred and eighty-four primary reviews. Fifty-two of the studies were repeated in more than one review (See Appendix G). The overall CCA was 0.041 which was considered slight.

Results

Review Characteristics

Participants

Over one hundred and fifty thousand participants were included across the thirteen reviews. Female participants outnumbered males in every review. In the studies that reported age, the range of participants' age was 16 to 65 years. Ethnicity was rarely discussed with ten of the included studies not reporting on ethnicity. One review highlighted a proportion of racial and ethnic minorities ranging from 1% to 97.4% (Kimber, et al.,2017)

Sample Formation

Reviews used a variety of recruitment settings and countries in the formation of samples. Participants were recruited from a) clinical setting (Caslini et al., 2016; Kimber, et al.,2017; Lie et al., 2019; Menzel et al., 2010; Pope & Hudson, 1992; Smolak & Murnen, 2002) b) community (Caslini et al., 2016, Kimber, et al., 2017; Lie et al., 2019; Menzel et al., 2010) c) outpatient (Molendijk et al., 2017) d) inpatient (Pope & Hudson, 1992). Reviews included articles undertaken across four continents: Austria, Australia, Belgium, Canada, China, Finland, Germany, Italy, Japan, New Zealand, Norway, Portugal, Slovenia, Spain, South Korea, Sweden, Switzerland, The Netherlands, Taiwan, Turkey, UK and USA.

Designs included in Reviews

Three hundred and eighty-four articles were included across thirteen reviews. The reviews included articles with a variety of different designs, e.g., case control (Caslini et al., 2016; Chen et al., 2010; Connors & Morse, 1992; Lie et al., 2019; Norman et al., 2012; Pope & Hudson, 1992), cross-sectional (Caslini et al., 2016; Connors & Morse, 1992; Kimber et al., 2017; Lie et al., 2019; Menzel et al., 2010; Norman et al., 2012; Pignatelli et al., 2017) and longitudinal (Kimber et al., 2017; Lie et al., 2019; Menzel et al., 2010). All reviews included articles of people with eating disorders/disordered eating, and the majority also included a comparator group (Grogan et al., 2020). Examples include participants from the general population or services users with other mental health diagnosis (Lie et al., 2019; Pope & Hudson, 1992). One review did not include details of comparator groups (Kimber et al., 2017). It was not always clear whether the specific article of interest had comparator groups (Menzel et al., 2010).

ACEs included in Reviews

There was a lack of consistent definition across the reviews (See Appendix D). Despite this, each of the definitions given would be applicable to the definition of ACEs proposed by Felitti et al. (1998). Each of the three categories of ACEs were highlighted in the search strategy and included articles in the results. Abuse (n=9) and Neglect (n=3) yielded the majority of reviews, either exclusively or combined, with only one review focusing on the household dysfunction category. As previously mentioned, this review expanded ACEs to include additional adverse experiences suggested by Finkelhor and colleagues (2015). Two articles focused on reviewing the association between bullying/teasing and EDs.

ACE subcategory- *Abuse*

Two reviews combined all forms of abuse (Caslini et al., 2016; Molendijk et al., 2017). Caslini et al. (2016) provided separate definitions of CSA, CPA and CSE, drawing on definitions from previous investigations (Doyle, 1997; Treuer et al., 2005; Wonderlich et al., 1997). In contrast, the second review combined neglect and emotional abuse into one construct which was termed “emotional child maltreatment” (Molendijk et al., 2017). The authors also included the terms physical and sexual childhood maltreatment (WHO, 2016b) instead of CPA and CSA (Molendijk et al., 2017).

Five reviews focused exclusively on childhood sexual abuse (CSA) (Chen et al., 2010; Connors & Morse, 1992; Pop & Hudson, 1992; Smolak & Murnen, 2002; Wonderlich et al., 1997). There was inconsistency regarding the definition of CSA across and within the reviews. Two reviews provided broad definitions of CSA in their inclusion criteria (Chen et al., 2010; Wonderlich et al., 1997). The remaining reviews relied on outcome measures to define CSA throughout the review (Connors & Morse, 1992; Pop & Hudson, 1992; Smolak & Murnen, 2002). No review utilised the same definition of CSA. There was some variability in terms of whether articles were restricted their inclusion of CSA to incest, contact incidents, or age of perpetrator and victim (Smolak & Murnen, 2002).

ACE subcategory - *Abuse and Neglect*

Two reviews investigated abuse and neglect (Kimber et al., 2017; Norman et al., 2012). Both provided definitions for both abuse and neglect. Kimber et al. (2017) separate emotional abuse from emotional neglect whereas Norman et al. (2012) do not differentiate a separate ‘emotional

neglect’ category. It is clear from their definitions that childhood emotional neglect (CEN) falls under a larger ‘neglect’ category, and therefore by implication they are measuring a combination of CEN and CPN (Norman et al., 2012). Both Kimber et al. (2017) and Norman et al. (2012) found risk of bias in the association of interest. The authors explained that, because of this, the reported statistics may be overstated, and the former did not discuss implications.

ACE subcategory - *Neglect*

One review investigated both emotional and physical neglect (Pignatelli et al., 2017). The authors highlight the importance of separating forms of neglect and offer a definition provided by the WHO (1999).

ACE subcategory - *Household Dysfunction*

One article investigated the impact of adversities occurring in the context of home and family environments on EDs (Grogan et al., 2020). The authors included a range of family factors including family disharmony, familial mental health issues and family disruptions which they refer to as “adverse life experiences” (Grogan et al., 2020).

ACE subcategory - *Bullying/Teasing*

Two reviews included reviews that had assessed bullying/teasing (Lie et al., 2019; Menzel et al., 2010). Lie et al. (2019) differentiate between bullying and teasing. Using a definition provided by Olweus (1994) the authors refer to bullying as behaviours against a person who cannot defend themselves whereas teasing is a form of verbal bullying (Lie et al., 2019). The review also includes cyber bullying (online, social media) (Lie et al., 2019). Menzel et al. (2010) focused

solely on teasing which they related to the concept of appearance related feedback (Thompson et al., 1999). They suggest teasing is “good natured” appearance related feedback.

ACE Assessment Tools

The most used measure was the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) which has been shown to be reliable and validated across clinical and nonclinical populations and in different languages (Karos et al., 2014; Lochner et al., 2010). It has also been validated against therapist trauma ratings and objective measures (Bernstein et al., 1997). Other self-report measures are included in Table 4 (Also see Appendix F).

Smolak and Murnen, (2002) did not state the measures used by the included articles but suggested CSA was defined according to a scale like Finkelhor and Browne (1986). Norman et al. (2012) included articles where participants had self-reported adverse childhood experiences without the use of assessment tools. Chen et al. (2010) included articles which ascertained exposure to sexual abuse through clinical interviews and official records (e.g., notes from social services). Additionally, some reviews also included single item yes/no questions about whether someone had experienced a particular adverse experience (Lie et al., 2019; Menzel et al., 2010).

Table 4

ACE Assessment Tools

ACE assessment Tool	Authors using this measure
Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998)	Caslini et al.(2016) Kimber et al. (2017) Molendijk et al. (2017) Norman et al. (2012) Pignatelli et al. (2017) Kimber et al. (2017)
Child Abuse and Trauma Scale (Sanders & Becker-Lausen, 1995)	Kimber et al. (2017)
Traumatic Experiences Checklist (Nijenhuis, Van Der Hart, & Kruger, 2002)	Pignatelli et al. (2017)
Sexual Life events questionnaire (Finkelhor, 1979)	Caslini et al.(2016) Connors & Morse (1992) Pope & Hudson (1992) Wonderlich et al. (1997)
Perception of Teasing Scale (POTS, Thompson, Fowler & Fisher, 1995)	Menzel et al. (2010); Lie et al. (2019)
Physical Appearance Related Teasing Scale (PARTS, Thompson, Heinberg & Taantleff, 1991)	Menzel et al. (2010)
McKnight Risk Factor Survey-III (MRFS-III, Shisslak et al., 1999)	Menzel et al. (2010)
Teasing Subscale of the Inventory of Peer Influence on Eating Concerns (IPIEC, Oliver & Thelen, 1996)	Menzel et al. (2010)
The Stressful Life Events Screening Questionnaire (SLESQ; Goodman, Corcoran, Turner, Yuan, & Green, 1998)	Caslini et al.(2016)
Family Environment Scale (FES; Moos & Moos, 1984)	Caslini et al.(2016) Grogan et al. (2020)
The Physical and Sexual Abuse Questionnaire (PSA; Nagata et al. (2000)	Caslini et al. (2016)
Parental Bonding Instrument (Parker, G., Tupling, H., & Brown, L. B. (1979)	Grogan et al. (2020); Kimber et al. (2017)
Essen Trauma Inventory (Tagay et al., 2011)	Grogan et al. (2020)
Trauma Antecedents Questionnaire (Herman, Perry & Van der Kolk, 1989)	Kimber et al. (2017)
Body image victimization experiences scale (BIVES; Duarte & Pinto-Gouveia,2017).	Lie et al. (2019)
The Conflict Tactics Scale (Straus, 1979)	Norman et al (2012)

Eating Disorder Assessment Tools

Many reviews investigated each of the most common eating disorder diagnoses: AN, BN and BED (Caslini et al., 2016; Grogan et al., 2020; Lie et al., 2019; Molendijk et al., 2017; Pignatelli et al., 2017; Smolak & Murnen, 2002) with one including Eating Disorder Not Otherwise Specified (EDNOS) (Molendijk et al., 2017). Pope and Hudson (1992) focused solely on BN where Wonderlich et al. (1997) did not include BED disorder. Kimber et al (2017) included subclinical eating disordered behaviours in addition to clinical ED diagnoses. One review only explored disordered eating behaviours (Menzel et al., 2010). Two reviews investigated a range of psychological and health conditions which included EDs (Chen et al., 2010; Norman et al., 2012). Some reviews included articles which reported on generic or mixed ED in addition to subcategories such as BN or AN (Chen et al., 2010; Kimber et al., 2017; Lie et al., 2019; Molendijk et al., 2017; Norman et al. 2012; Smolak & Murnen, 2002)

Overall reviews included articles using a validated diagnostic instrument or screening instrument for EDs (See Table 5). Chen et al. (2010) did not report how ED diagnosis or symptoms were ascertained or measured by the articles included in their review. Single self-report item were utilised by some articles included by Kimber et al. (2007). There were varying editions of the Diagnostic and Statistical Manual included in the reviews, from DSM-III to DSM-V as well as the ICD-10 (International Centre for Diseases). This is reflective of the breadth of time captured across the literature.

Table 5*Eating disorder and disordered eating Assessment Tool*

Eating disorder assessment Tool	Authors
Eating Disorders Inventory; (EDI; Garner, 2004),	Connors & Morse (1992) Kimber et al.(2017) Lie et al., (2019) Menzel et al. (2010) Molendijk et al. (2017) Pope & Hudson (1992) Smolak & Murnen (2002) Wonderlich et al (1997)
The Eating Disorder Examination Questionnaire (EDEQ; Fairburn & Beglin, 1993; 2008)	Kimber et al. (2017) Lie et al. (2019) Menzel et al. (2010) Norman et al. (2012) Wonderlich et al. (1997)
Eating Patterns Questionnaire (EPQ)	Connors & Morse (1992) Pope & Hudson (1992)
Structured Inventory for Anorexic and Bulimic Syndromes (SIAB-EX, Fitcher 1998)	Pignatelli et al. (2017)
The Eating Disorder Risk Composite (EDRC; Gardner, 2004)	Menzel et al. (2010)
Bulimia Test (BUILT; Smith & Thelan, 1984)	Caslini et al.(2016) Connors & Morse (1992)
Minnesota Eating Behavior Survey (MEBS; Von Ranson et al., 2005)	Caslini et al.(2016) Menzel et al. (2010)
Binge Eating Scale (BES; Gormally, Black, Daston, & Rardin, 1982).	Caslini et al.(2016)
The Bulimia Test-Revised (BULIT-R; Thelan, Farmer, Wonderlich, & Smith, 1991)	Caslini et al.(2016) Menzel et al. (2010)
Bulimic Investigatory Test, Edinburgh (BITE). The BITE (Henderson & Freeman, 1987)	Caslini et al.(2016)
The Eating Attitudes Test (EAT; Garner, D. M., & Garfinkel, P. E. (1979)	Caslini et al.(2016) Menzel et al. 2010) Molendijk et al. (2017) Pope & Hudson (1992) Smolak & Murnen (2002)
Structured Inventory for Anorexic and Bulimic Syndromes (SIAB-EX; Fitcher, 1998)	Caslini et al.(2016)
Dutch Eating Behaviour Questionnaire (Van Strien et al., 1986)	Kimber et al. (2017) Menzel et al. (2010)
Eating Disorder Diagnostic Scale (Stice, Fisher, & Martinez, 2004).	Kimber et al. (2017)

Results of Reviews

Abuse

One high quality review focused on combined abuse (Molendijk et al., 2017). The results showed people with EDs were more likely to report a history of adversity than psychiatric controls (OR 1.31, 95% CI 1.08– 1.58, $p < 0.001$). Compared to healthy controls, people with BN more often reported CSA (OR=2.57, 96% CI= 1.62-4.01, $P<.001$) and CEA (OR=5.13, 96% CI= 2.80–9.40, $P<.001$). Individuals with BED were more likely to report all forms of abuse compared to healthy controls - CSA (OR=1.88, 96% CI= 1.38-2.55, $P<.001$), CPA (OR=2.57, 96% CI= 1.99–3.31, $P<.001$) and CEA (OR=2.44, 96% CI= 1.73–3.43, $P<.001$). Individuals with AN were more likely to report CPA (OR=2.42, 96% CI= 1.34-4.35, $P<.001$) and CEA (OR=3.81, 95% CI = 2.205–7.08, $p < .001$) than controls. Molendijk et al. (2017) provide nuance in their results by comparing subtypes of AN to healthy controls to find that those with binge-purge subtype were more likely to report CSA than restrictive subtype or healthy controls. Molendijk et al. (2017) were the only review to provide evidence of association between abuse and EDNOS. The results suggest a significant association between EDNOS and CSA (OR=5.11, 95% CI = 1.94-13.64, $p < .01$) but not with combined child abuse, CP or CEA. The low quality review (Caslini et al., 2016) found a number of similar associations. Caslini et al. (2016) suggested an association between combined abuse and ED (OR=3.21, 95% CI = 2.29–4.51, $p < .00$) in comparison to healthy controls. Similarly to the other review, Caslini et al (2016) investigated associations between separate abuse categories and ED subtypes in comparison to healthy controls. BN was found to be associated with CSA (OR=2.73, 95% CI = 1.96–3.79, $p < .001$), CPA (OR of 3.44, 95% CI = 2.56–4.61) and CEA (OR =4.15, 95% CI = 2.71–6.37,

$p < .001$). This was replicated with BED - CSA (OR=2.31, 95% CI = 1.66–3.20, $p < .001$), CPA (OR=3.10, 95% CI = 2.49–3.88, $p < .001$) and CEA (OR=3.70, 95% CI = 2.07–6.60, $p < .001$). However, in comparison to healthy controls, individuals with AN were only more likely to report CPA (OR=3.35, 95% CI = 1.43–7.85, $p = .005$).

There were methodological discrepancies between these reviews when defining abuse criteria. Caslini et al. (2016) drew on definitions suggested in previous research (Doyle, 1997; Treuer et al., 2005; Wonderlich et al., 1997) whereas Molendijk et al. (2017) use a modified definition of adversity put forward by the WHO (2016b). Molendijk et al. (2017) included emotional neglect as a component of emotional abuse whereas Caslini et al. (2016) did not appear to. This may have led to potentially different concepts being measured. It is also noted that there was an overlap of sixteen articles included in both reviews potentially creating overlap in some of the results.

Five reviews focused on the relationship between CSA and EDs, two low quality (Chen et al., 2010; Wonderlich et al., 1997) and three critically low (Connors & Morse, 1993; Pope & Hudson, 1992; Smolak & Murnen, 2002). Wonderlich et al. (1997) suggested that CSA was associated with BN, particularly when there are comorbid diagnoses. They also noted that there was a stronger relationship between CSA and BN than there was with the restrictive subtype of AN. Chen et al. (2010) MA found a significant association between a history of CSA and a lifetime diagnosis of EDs (OR, 2.72; 95% CI, 2.04- 3.63). Chen et al. conducted a sensitivity analysis to determine whether the type of abuse (rape vs all forms of sexual abuse) would impact the association. A history of rape was found to strengthen the association of sexual abuse with

lifetime diagnoses of ED (OR, 21.69; 95% CI, 1.26-373.39) (Chen et al., 2010). The two critically low reviews utilised similar narrative methodologies to conclude comparable rates of historical CSA between individuals with ED and the general population (Connors & Morse, 1993; Pope & Hudson, 1992). Pope and Hudson (1992) included only populations with a BN diagnosis compared to Connors and Morse (1993) who included all ED subtypes. A critically low-quality MA (Smolak & Murnen, 2002) compared sexually abused with non-abused individuals on ED measures to find a significant effect size ($z = 16.73, p < .001$); however, significant heterogeneity was detected ($x^2(29) = 201.04, p < .01$). Effect sizes were larger for EAT or EDI ($r = .284, k = 13$) than using a subcategory specific measure such as a BN measure ($r = .107, k = 6$); $x^2(2) = 51.51, p < .05$. The MA also found a significant effect size ($r = .07, z = 13.28, p < .01$) comparing ED with psychiatric controls on sexual abuse measures. Again heterogeneity was found across studies, $x^2(22) = 100.94, p < .01$. A diagnosis of BN was shown to have larger effect sizes than controls ($r = .082, k = 18$) compared with those with a more general ED diagnosis ($r = .023, k = 5$) (general ED diagnosis was defined by the authors).

Abuse and Neglect

A high quality MA (Norman et al., 2012) found that CPA (OR = 2.58; CI = 1.17-5.70), CEA (OR = 2.56; CI= 1.14-4.65) and neglect (OR=2.99; CI= 1.53-5.83) were associated with an almost three-fold increased risk for developing an ED. CPA was associated with a five-fold increased risk for developing BN and a dose–response relationship was also observed, with BN more likely with more severe and repeated physical abuse (Norman et al., 2012).

A low-quality systematic review (Kimber et al., 2017) investigated the relationship between child exposure to intimate partner violence (IPV), CEA, neglect and adult eating

disorders and eating-disordered behaviour. They reported an association between CEA and ED ranging from weak ($r=0.16$) to exceptionally strong ($r=0.89$), and an association between CEA and eating disordered behaviour ranging from very weak ($r=0.003$) to moderately strong ($r=0.47$). An additional association was found between emotional neglect and ED ranging from weak-to-moderate ($r=0.21$) to very strong ($r=0.76$) and eating disordered behaviour ranging from very weak ($r=0.03$) to moderately strong ($r=0.34$). Kimber et al. (2017) also commented on a moderately strong ($r=0.32$) relationship between witnessing domestic violence and EDs as well as a weak relationship to disordered eating (very weak $r=0.04$ to weak-to-moderate $r=0.21$).

Both reviews investigated CEA and neglect. There were several discrepancies and inconsistencies between the two reviews which will be further considered in the discussion section.

Neglect

One review of low quality (Pignatelli et al., 2017) reported an association between eating disorders and emotional neglect (OR 53.5%, 95% CI=42.3%, 64.3%) and physical neglect (OR 45.4%; 95% CI=33.1%,58.2%). Despite these findings being based on over 1,000 participants, the authors only reported for general ED and did not report associations with specific types of ED. Pignatelli et al. (2017) tested for homogeneity and found that this assumption was not met, $Q(6) = 71.53, p < .001$.

Household Dysfunction

One high quality review investigated the impact of adversities occurring in the context of home and family environments on eating disorders e.g. family conflict or disturbance; death of a family

member or significant person; familial mental health issues; receiving comments from family on eating, or shape, weight and appearance (Grogan et al., 2020). Grogan et al. (2020) chose not to conduct a MA, citing high levels of heterogeneity across the included articles. The authors reported overall higher associations between household dysfunctions and BN and BED rather than AN. Family disharmony, family comments about eating or physical appearance and disruptions in family structure (family members leaving or joining the family) were associated with BN and BED compared to controls. Parental indifference and negative parent-child interactions were experienced more by individuals with BN compared to those with AN. The studies included by Grogan et al. (2020) were highly heterogeneous due to the scope of the aims and inclusion of diverse research designs, measures of adversity and ED population.

Bullying/Teasing

One moderate quality review reported several associations with moderate-large effect sizes: weight teasing and body dissatisfaction, weight teasing and dietary restraint, weight teasing and body dissatisfaction and appearance teasing and bulimic behaviours (Menzel et al., 2010). Menzel et al. (2010) draw attention to several moderating factors, shown in Table 6. The authors suggested that teasing measure type indicated that single-item measures of teasing consistently underestimate the strength of associations. This result may partly be accounted for by the limited variance in a single item which then restricts the range of calculated correlations (Menzel et al., 2010). These results must be interpreted with caution. Measures of bullying/teasing varied considerably in context (e.g., timeframe, type, and perpetrator). Many studies included in the reviews did not include a definition of bullying/teasing in their measures and used the terms “bullying” or “teasing” without further definition. It was also often unclear what type of bullying

experiences participants reported (e.g., verbal, physical, etc.). This was supported by a critically low quality review (Lie et al., 2019) which highlighted that individuals with ED were two to three times more likely to have experienced generic bullying victimization (OR=2.22, CI: 1.53–3.22; $p < 0.01$) and appearance-related teasing (OR=2.93, CI: 1.97–4.37; $p < 0.01$) in childhood before the onset of ED diagnosis. Heterogeneity was present for associations with appearance-related teasing ($I^2 = 82.89\%$, $p < 0.0001$).

Table 6

Moderators of weight teasing and appearance teasing in the review of Menzel et al. (2010)

Association	Moderator and effect
weight teasing and body dissatisfaction	<p>strengthened by</p> <ul style="list-style-type: none"> • Multi-item measures as opposed to single-item measures, $Q_{\text{between}}(1, 49) = 72.06, p < .001$ • cross-sectional studies as opposed to longitudinal studies, $Q_{\text{between}}(1, 49) = 127.93, p < .001$ • Age <ul style="list-style-type: none"> ○ Child and adolescents than in adults $Q_{\text{between}}(1, 49) = 22.57, p < .001$ • Gender <ul style="list-style-type: none"> ○ Female sample than in male samples ($Q_{\text{between}}(1, 49) = 50.35, p < .001$)
weight teasing and dietary restraint	<p>Strengthened by</p> <ul style="list-style-type: none"> • Age <ul style="list-style-type: none"> ○ Child and adolescents than in adult samples $Q_{\text{between}}(1, 49) = 22.57, p < .001$
weight teasing and bulimic behaviours	<p>Strengthened by</p> <ul style="list-style-type: none"> • multi-item measures as opposed to single-item measures $Q_{\text{between}}(1, 21) = 11.85, p < .001,$ • community samples as opposed to clinical samples $Q_{\text{between}}(1, 22) = 5.34, p < .05$
appearance teasing and body dissatisfaction	<ul style="list-style-type: none"> • multi-item measures of teasing as opposed to single item measure $Q_{\text{between}}(1, 23) = 3.93, p < .05$ • cross-sectional studies as opposed to longitudinal $Q_{\text{between}}(1, 23) = 71.42, p < .001$

Discussion

This is the first meta-review to attempt to synthesise the current evidence and provide a comprehensive summary of associations between childhood adversity and eating disorders under an ACEs framework. This review provided a narrative synthesis and quality appraisal of thirteen articles. This meta-review emphasises the complexities of this literature and affords an opportunity to expand ACEs research in the context of ED.

Table 7

Evidence of association between ACEs and eating disorders from High or Moderate Quality Reviews

ABUSE	Neglect (Emotional/Physical)	Household Dysfunction	Bullying and Teasing
<ul style="list-style-type: none"> • CSA <ul style="list-style-type: none"> ○ Molendijk et al. (2017) • CPA <ul style="list-style-type: none"> ○ Molendijk et al. (2017) ○ Norman et al., (2012) • CEA <ul style="list-style-type: none"> ○ Norman et al., (2012) ○ Molendijk et al. (2017) 	<ul style="list-style-type: none"> • Norman et al., (2012) 	<ul style="list-style-type: none"> • Bulmia and binge eating (Grogan et al.,2020) 	<ul style="list-style-type: none"> • Disordered eating (Menzel et al., 2010)

High quality Reviews - Grogan et al. (2020); Molendijk et al. (2017), Norman et al. (2012); Moderate Quality Reviews – Mezel et al. (2010)

The findings of this meta-review suggest that there is high to moderate quality evidence of an association between ACEs and EDs (Table 7). The high to moderate quality reviews found an overall relationship between EDs and CSA (Molendijk et al., 2017), CEA (Molendijk et al., 2017; Norman et al., 2012), CPA (Molendijk et al., 2017; Norman et al. 2012), neglect (Norman et al., 2012), household dysfunction (Grogan et al., 2020). Reviews that were not considered high quality also reported a relationship between ACEs and EDs.

ACEs and specific ED subtypes

Of the high and moderate quality reviews that separated associations of ACEs with subtypes of EDs, BN and BED appeared to have the most consistent associations. BN and BED were associated with all three forms of abuse: CSA (Molendijk et al., 2017), CPA (Norman et al., 2012; Molendijk et al., 2017), CEA (Molendijk et al., 2017). There was also a relationship found with Household dysfunction (Grogan et al., 2020). AN was suggested to have a more complex relationship with ACEs categories. AN was found to have a consistent relationship with CPA (Molendijk et al., 2017), however an association was only found between CSA and binge-purge subtype but not for restrictive subtype. Furthermore, there were conflicting results regarding the association between AN and CEA with only Molendijk et al. (2017) finding a relationship. The evidence appears to suggest that abuse (CSA, CPA, CEA), neglect and aspects of household dysfunction are specifically linked to developing BN or BED behaviour. ACEs often involve the extreme deprivation of basic necessities for children, e.g., food and security (Coffino et al., 2020). Research suggests that poverty-induced food restriction may be related to cyclical access to food through monthly pay checks or allocation of benefits (Becker et al., 2017) Low food security was associated with increased likelihood of BED and BN diagnoses (Lyndecker &

Grilo, 2019; Rasmusson et al., 2019). This may provide suggestion of some moderators of the associations found between ACEs and EDs.

Few reviews included reviews that assessed potential mechanisms. Kimber et al. (2017) reported on studies which demonstrated that emotional regulation mediates the relationship between CEA and ED, one article which reported anger and self-criticism mediate this relationship and another which found that depression and anxiety did. Caslini et al. (2016) suggest that EDs may be both a reaction to abuse and a strategy for coping with emotions resulting from experiencing adversity. For example, CSA may be too stressful for the individual to tolerate without developing ED (Dworkin et al., 2014). Similarly, Pignatelli et al. (2017) propose ED as a way of experiencing control in contrast to the abuse/neglect context over which the individual has had no control. Theoretical models have claimed both bingeing–vomiting and restriction are emotion suppression strategies, helping the individual to dissociate from negative experiences such as ACEs (Cooper et al., 2004). Thus, ED may offer a coping strategy to bring about internal control and affective modulation in the presence of poor emotional regulation and stress responses resulting from ACEs.

The literature has suggested an interaction between genes and environment to explain the underlying processes between ACEs and EDs. Early life experiences of adversity have the capacity to influence cortisol reactivity to stress, which may explain why some individuals are at increased risk of developing stress-reactive psychopathologies, such as EDs (Hankin et al., 2015). Literature has shown elevated cortisol in individuals with AN and BN who had been exposed to ACEs compared to those with AN and BN who had not been exposed to ACEs

(Monteleone et al., 2015). Rozenblat et al. (2017) suggest that individuals with the ‘risky’ genotype may be relatively resilient to low levels of environmental risk, but disproportionately affected by greater environmental adversity (e.g., experiencing numerous types of ACEs). It is possible that this would lead to reduced availability of serotonin in the stress response system resulting in poor stress and emotional regulation (van Eekelen et al., 2012). Research has noted a reduction in cortisol awakening response in women with AN or BN (Monteleone et al., 2015) with a possible dose-dependent effect of childhood trauma (Monteleone et al., 2018b). These findings provide evidence that early adverse experiences have a long-lasting detrimental effect on both the basal activity and the stress reactivity of the hypothalamic-pituitary-adrenal axis (HPA) in AN and BN (Monteleone et al., 2018). However, it is difficult to disentangle the influence of ACEs from the nutritional and metabolic consequences of an ED. This could be a potential area for further research.

Not all the ACEs have been measured in association with EDs. This was most evident in the Household Dysfunction category, e.g. having an incarcerated parent was not measured.

Preliminary literature has suggested that household dysfunction, such as parental incarceration, increases the risk for poorer child health difficulties, chronic physical conditions, developmental disorders, and mental health conditions including ED compared to children who have not been exposed to parental incarceration (Jackson & Vaughn, 2017; Jackson et al., 2021). This represents an important gap in the ACEs and ED literature for researchers to address.

Methodological Variability

There were several methodological discrepancies across the literature which appeared to moderate the results of the reviews. This made drawing consistent conclusions difficult and may

account for the high prevalence of heterogeneity across the reviews. Methodological moderators highlighted the following themes: assessment tools, definitions, population, and design.

Potential sources of heterogeneity were highlights. One review suggested the inclusion of varied designs, both qualitative and quantitative methods, diverse ED diagnoses (AN, BN and BED) and range of control populations (clinical and non-clinical) could account for the heterogeneity (Grogan et al., 2020). For example, it may be that participants are more or less likely to disclose sensitive information depending on the method used. An additional source of heterogeneity could include the diverse outcome measures used for ACEs. Heterogeneity of methodologies limits the certainty with which the reported associations can be stated.

A range of methods were used for measuring both ACEs and EDs. The most appropriate strategy for assessing ACEs is still under debate. None of the included reviews used the Adverse Childhood Experience Questionnaire (ACE-Q; Felitti et al., 1998) instead showing preference for measures such as Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994) and clinical interview. This is potentially reflective of the original ACE study which adapted their questions from several previous questionnaires and studies. There are benefits and costs to the assessment methods utilised. Benefits of clinical interviews include the opportunity to capture greater detail and elicit sensitive information that might not otherwise be disclosed. Alternatively, self-report measures are less time consuming and costly, especially for large scale research (Boyle et al., 2017). Nevertheless, including a range of assessment tools to measure ACEs would improve the reliability of conclusions drawn as the potential to measure contrasting constructs is increased.

This criticism is also applicable to the variety of assessment tools utilised to measure ED. Many reviews included a DSM or ICD diagnosis. This provided some homogeneity; however, other assessment tools were also utilised across the included reviews. Menzel et al. (2010) noted in their review that the type of tool used to assess ED (EDI or EAT) moderated the size of the effect. They noted the moderating effect in their analysis of using more narrowly defined ED tools, such as BUILT, produced a smaller effect size than broader assessment tools such as EDI and EAT. This has the potential to underestimate the association between ACEs and EDs.

All the SRs and MAs included defined concepts of adversity in line with the definition of ACEs provided by this review. However, authors used slightly different definitions of the ACEs included in their review such as child maltreatment or child trauma. Some did not include a definition and only stated the concept whereas others chose to combine categories into overarching concepts. This may be due to the original review providing a broad definition of its terminology (Feletti et al., 1998). This conceptual inconsistency makes it less clear whether the same construct was being measured across studies, potentially impacting on the complexity of the literature. Furthermore, reliability and replicability become problematic. It is recommended that researchers decide on a clear, standardised definition of each component of ACEs, and the best way to measure it, to increase consistency and make results more comparable across studies. It must also be noted that different types of abuse frequently co-occur (Dong et al., 2004; Feletti et al., 1998, Finkelhor, 1998). Although reviews have reported the association of separate or combined ACEs with EDs, no summary analysis of the interrelationships among multiple forms of ACEs has been reported. In order to better understand the effects of ACEs, an in-depth investigation of the interrelationships is critical (Dong et al., 2004).

In most reviews there was a reliance on cross sectional design studies, in which participants retrospectively self-report adversity. Recall bias in the report of ACEs can artificially cause an association between self-reported child abuse and later outcomes (Talmon & Widom, 2021). Authors have argued that retrospective studies do not provide data about child abuse experiences that is as accurate as prospective studies and have cautioned against sole reliance on retrospective accounts (Baldwin et al., 2019). Nevertheless, methodologically, prospective studies of ACEs would be practically challenging and highlight ethical concerns in practical application. Longitudinal research has shown that retrospectively recorded ACEs are more strongly associated with health outcomes than those that were objectively assessed prospectively (Reuben et al., 2016), which might reflect a degree of bias. Limited studies have examined ACEs as risk factors for eating disorders using a longitudinal prospective design (Johnson et al., 2002; Li et al., 2019). The implications are that the associations reported in this meta-review may be stronger than those that would have been found had reviews focused on longitudinal studies.

Limitations

Limitations of this review include the use of the AMSTAR 2 (Shea et al. 2017). This tool is primarily designed for quality assessing SRs and MAs that include randomised and or non-randomised studies of healthcare interventions, or both. Due to the nature of the research question, included studies are observational, and therefore, some of the items in the AMSTAR 2 had to be modified or omitted, potentially affecting reliability. To account for this all the included reviews were assessed by three additional independent raters, with 100% agreement. The AMSTAR 2 was chosen because to the author's knowledge there are no tools for quality-assessing SRs and MAs that has had its psychometric qualities tested (Shea et al., 2017) and

which gives a more detailed appraisal than a checklist with a total score (a method that may obscure any weaknesses in critical areas). It is also a tool recommended in the Cochrane handbook for conducting overviews of reviews, (Pollock et al., 2018).

The SRs and MAs included in this review did not appear to control for the co-occurrence of types of ACEs. It is possible that when reporting separate analyses, e.g. neglect, there may have been the potential influence of another ACE, e.g. CEA. Future research should only include participants who report high levels of one type of ACE and low levels of another or to statistically control for possible co-occurring ACEs.

This review exposes several prospects for future research, e.g. consistent measurement and definitions of ACEs. A further potential gap in the literature is attention to diversity (i.e., gender, race, and sexual orientation). Attention to diversity is essential because of potential societal bias regarding who is at risk for experiencing ACEs and developing EDs. Men and racial minorities are less likely than their female and white counterparts to be assessed for EDs (Gordon et al., 2002; MacCaughelty et al., 2016). At a time when conversations and activism related to social justice, diversity, equity, and inclusion are occurring around the globe it is important to understand how diversity might moderate the association between ACEs and ED.

Clinical Implications

This meta-review includes sufficient reviews of sufficient quality to conclude with some certainty that ACEs are associated with later onset of ED, and tentatively we can conclude some specific associations between ACEs and types of ED. Given the lack of differentiation between types of adversity and controlling for the co-occurrence of types of adversity, more research is

required to verify their unique contributions to EDs, and ED subtypes. However, there is sufficient evidence to conclude that clinicians should investigate the impact of ACEs in the presentations of the individuals seen in clinic. Unfortunately, research suggests that clinicians do not routinely assess trauma history (Read et al., 2007). Early identification of trauma history for people with EDs may provide relevant and valuable information for individualised psychological formulation and trauma informed interventions to reduce psychological distress and increase coping skills. It can also provide an understanding of difficulty within the therapeutic relationship. A person who has experienced ACEs may find building a therapeutic relationship particularly challenging (Anderson et al., 2019). The foundational trust in relationships is disrupted when children experience relationships as unsafe. This can have a detrimental impact on the rate of dropout, help seeking and protection (Golden et al., 2003) and the ability to maintain a therapeutic relationship (Mahon et al., 2001). However, research suggests when asked about prior trauma, services users appreciate opportunities of talking about their experiences and do not experience an increase in symptoms (Sweeney et al., 2018).

Conclusion

This meta-review provides an up-to-date account of the quality of literature between ACEs and EDs. The findings suggest there is high to moderate quality evidence of an association between ACEs and EDs. The high to moderate quality reviews found an overall relationship between EDs and CSA (Molendijk et al., 2017), CEA (Molendijk et al., 2017; Norman et al., 2012), CPA (Molendijk et al., 2017; Norman et al. 2012), neglect (Norman et al., 2012) and household dysfunction (Grogan et al., 2020). Reviews not considered high quality also reported a relationship between ACEs and EDs. Despite the need for further research into theoretical pathways and mechanisms of this association, clinicians should not overlook ACEs in their

assessment of people with EDs. Furthermore, researchers should aim to provide a distinct and consistent definition of each ACE to increase consistency and reliability.

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Paper 2

The role of negative childhood events in the development of the Anorexic Voice: A grounded theory study

Word count for Abstract: 230

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This paper is prepared in accordance with the author guidelines for *International journal of Eating Disorders* (Appendix A). For the purposes of thesis submission, the DClInPsy word limit of 8000 words has been used to ensure all relevant information could be demonstrated. APA 7th style has been used for references. Tables and Figures have also been embedded in the main body of the paper, however will be placed in supplementary information for journal submission.

**The role of negative childhood events in the development of the
Anorexic Voice: A grounded theory study**

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ABSTRACT

Objective: Many individuals diagnosed with Anorexia Nervosa (AN) describe their disorder as being represented by an internal ‘voice’. The aetiology of the internal voice remains unclear. Previous studies have identified associations between eating psychopathology, emotional difficulties, and multifarious forms of adverse life experiences. One hypothesis is the voice mediates this relationship. Therefore, the aim of this research was to qualitatively investigate whether individuals perceive there to be an interaction between the AV, emotions, and childhood experiences, and to generate new theory to explain any association. **Method:** Twelve women who had experience of the AV complete semi-structured interviews. The interview data was analysed using a constructivist grounded theory methodology. Memos and a reflective journal were kept throughout. **Results:** The theory that emerged posits that the AV provides a sense of safety amid life experiences that generate a sense of unsafety. However, the safety provided by the AV is conditional. When individuals disobeyed the voice became increasingly hostile and belittling, revealing similar characteristics to abusers and bullies in childhood. This would activate individuals’ unpleasant emotions from childhood, such as guilt and disgust. **Discussion:** The current study provides an account of the link between adverse life experiences, the AV, and AN. It corroborates existing theory and empirical findings in the field and provides additional insights. The limitations of this research are discussed as are implications for clinical practice and directions for future research.

Introduction

Anorexia nervosa (AN) has a mortality rate that is around five times higher than the mortality rates from other mental health diagnoses (Arcelus et al., 2011). Diagnostic manuals characterise AN by restriction of food intake, the fear of food and a disturbance in the way in which one views body weight or shape (Diagnostic and Statistical Manual of Mental Disorders (DSM-V); American Psychiatric Association, 2013). Nearly 75% of individuals with AN report a comorbid mood disorder (Fernandez-Aranda et al., 2007; Swinbourne & Touyz, 2007). The highest prevalence of AN has been reported in Europe, North America, and Australasia with increasing reports from Asia (Hoek, 2016; Nakai et al., 2014; Thomas et al., 2016). Recommended interventions for AN consist of weight restoration and eating disorder (ED) focused psychotherapies (National Institute of Clinical Excellence [NICE], 2017). Many individuals do not improve after treatment, and even after initial successful outcomes the relapse rate is high (Dobrescu et al., 2019; Zipfel et al., 2015). This could suggest a lack of understanding about the underlying mechanisms in AN, such as the Anorexic Voice (AV; Pugh, 2016).

The AV is characterised as a hostile internal dialogue (i.e. sometimes a second- or third-person commentary) related to eating, shape and weight (Pugh, 2016). It is thought to be a key psychological component which contributes to the development and maintenance of AN (Higbed & Fox, 2010; Pugh, 2016). Similar voices have been reported in other ED groups, including bulimia nervosa (Noordenbos et al., 2014; Pugh et al., 2018), suggesting this phenomenon may be a transdiagnostic feature across eating psychopathology. Conceptual tensions surround the AV, with some describing it as a metaphorical experience or internal thoughts (Graham et al.,

2019) and others suggesting it represents a separate entity related to the self (Pugh & Waller, 2018). Nevertheless, interventions targeting the AV have shown changes in the components of the AV experience (e.g. power and omnipotence) have a positive effect in reducing AN symptoms (Hibbs et al., 2020).

In the early stages of AN, the AV is perceived as comforting and safe however becomes critical and dominant; imposing high expectations on individuals and demanding obedience from them (Tierney & Fox, 2010, 2011; Williams & Reid, 2010, 2012). Living with the AV is experienced as a ‘battle’ (Broussard, 2005; Williams et al., 2015) and associated with negative feelings such as loneliness (Tierney & Fox, 2010, 2011; Williams & Reid, 2010, 2012). Despite this, individuals appear unwilling to leave the relationship with the AV (Tierney & Fox, 2010, 2011; Williams & Reid, 2010, 2012). It is unclear why the AV changes from being comforting to increasingly toxic (Tierney & Fox, 2011).

There appears to be an association between experiencing childhood adversity and developing AN, which may be mediated by several potential factors. As many individuals with AN experience the AV, literature suggests that the AV may be associated with childhood experiences. The AV may stem from early experiences of relational criticism and/or punitiveness which are internalised (Fox et al., 2012a). It may be that the AV helps to suppress emotions which are judged as forbidden and unacceptable (e.g. anger; Fox et al., 2012). Research indicates emotional regulation is a reliable mediator in the relationship between childhood adversity and voice-hearing in psychosis (e.g., Cole et al., 2016; Perona-Garcelán et al., 2012). Similarities between EDs, psychosis, and dissociative processes suggest the AV experience may lie on a

continuum between inner speech and auditory hallucinations (Pugh et al., 2018). According to the Trauma-Dissociation Model (TDM; Longden et al., 2012; Moskowitz et al., 2009), internal voices can signify consequential embodiments of traumatic events and early interpersonal-emotional conflicts (Corstens & Longden, 2013; Moskowitz & Corstens, 2008). Pugh and colleagues (2018) explored associations between the perceived power of the ED voice, dissociation proneness, and experiences of childhood trauma in a mixed ED group. The perceived power of the AV was found to be positively related to childhood emotional abuse, but not other early traumas, and this association was partially mediated by dissociation. These findings provide evidence that early adversity may be linked to development of voice-related experiences across clinical populations (Pugh et al., 2018). The authors suggest internal voices arise from detachment from internal events related to early trauma (Pugh et al., 2018). This suggests that internal voices reported in EDs can be understood within a developmental, interpersonal framework (Smailes et al., 2015) However, Pugh et al. (2018) included a mix of ED diagnoses; thus, it is unclear to what extent the findings apply to AN specifically.

Furthermore, methodological restrictions, such as self-report measures limited the range of childhood adversities recalled by individuals as well as other trauma-related factors which may act as mediators in the relationship between childhood trauma and AV. By incorporating qualitative methodology, a richer exploration of experiences and mediating factors could occur.

Experiencing childhood adversity has been suggested to increase sensitivity to interpersonal stress due to fears of rejection and abandonment, and difficulty establishing trust with others (Messman-Moore & Coates, 2007). Childhood adversity, namely sexual, physical and emotional abuse and neglect is a common theme in individuals with AN (Afifi et al., 2017; Molendijk et al.

2017). Individuals with AN have been reported to experience abuse and neglect with 90% reporting at least one type of adversity (Kong & Bernstein, 2009).

Despite this, the research is still inconclusive; some studies have found associations whereas some have not, and some remain uncertain suggesting associations are overstated (Polivy & Herman, 2002; Smyth et al., 2008; Villarroel et al., 2012). To better understand the possible relationship between childhood adverse experiences and AN, some authors have considered possible mediators such as dissociation (Pugh et al., 2018), anxiety and depression (Rabito-Alcon et al., 2021) insecure attachment (Illing et al., 2010) and emotional dysregulation (Mills et al. 2015). For example, anxiety and depressive symptoms may develop due to having unresolved childhood traumatic experiences and may be associated with difficulty regulating emotions which is in turn associated with AN (Rabito-Alcon et al., 2021). Furthermore, Tasca and colleagues (2009) found that the association between attachment anxiety and AN was mediated by emotional reactivity, and association between attachment avoidance and depressive symptoms in patients with an AN was mediated by cutting off emotions or dissociating. It appears childhood adversity may impact on an individual's psychological processes predisposing them to the susceptibility of developing AN if other factors are in place.

Childhood adversity may result in challenges to one's ability to tolerate and process intense emotional experiences, particularly negative affect. This can be the result of the abuse itself as well as not learning emotional regulation skills (Schoore, 2003). Subsequently, to cope with emotional states that overwhelm them, maltreated individuals develop external behaviours, which help to avoid painful emotions (Briere & Scott, 2006). Deficits in the recognition,

regulation, expression, and integration of emotions are prevalent in AN, often impacting upon social processes (Racine & Wildes, 2015). Individuals that experience childhood adversity also report more significant difficulties in these areas than those who do not have trauma history (Pollak, 2008).

Theoretical models explaining problems in emotional regulation in those with AN specify the role of early life factors that can lead to emotional dysregulation either by precipitating it or predisposing to it (Oldershaw et al., 2015). Fox and Power (2009) developed the SPAARS-ED model suggesting early life experiences dictate which emotions are acceptable and unacceptable to express. Emotions that are perceived as negative and as having the potential for them to cause rejection are thought to be unacceptable (Fox & Power, 2009). These emotions are suppressed using ED behaviours directing them towards the body, e.g., the self is seen as disgusting or threatening following abusive experiences (Fox & Power, 2009). This leaves the individual feeling revulsion to both body and food in AN (Fox & Power, 2009). A further model suggested for AN is Radically Open-DBT (RO-DBT) theorising that threat sensitivity interacts with feedback from the environment that emphasises self-control and minimising mistakes, which results in impairment in individuals' ability to feel safe (Hempel et al., 2018). It presents a conceptualisation of restrictive eating behaviours as a maladaptive inhibitory control behaviour that allows individuals with AN to dampen negative emotions. Some models have argued for a genetic process (Hatch et al., 2010) or predisposing cognitive factors (Schmidt & Treasure, 2006; Treasure & Schmidt, 2013) to explain emotional difficulties in AN. A commonality between models is the suggestion of a relational component impacting on emotion in AN (Schmidt & Treasure, 2006; Treasure & Schmidt, 2013).

The aim of the current research is to qualitatively investigate whether individuals perceive there to be an interaction between the AV, emotions, and childhood experiences, and to generate new theory to explain any associations. Understanding why and how the AV, emotions and childhood interact may further our understanding of the often-intractable nature of AN and low rates of recovery (Pugh et al., 2018). An inductive qualitative methodology is well suited to explore this research aim and qualitative approaches have been welcomed in AN research (Williams, King & Fox, 2016). Grounded theory is used to provide a framework to identify categories of data and to integrate them into theory describing emergent processes (Willig, 2013).

Methods

Design

Grounded theory (GT): Charmaz (2006) Constructivist approach

Semi structured interviews were used to collect data which was analysed using principles of grounded theory (Glaser & Strauss, 1967). This study employed constructivist grounded theory (CGT) methodology (Charmaz, 2006), which allows theories to emerge from data (Charmaz, 2006). Using a process of ‘constant comparison’, theory generation becomes progressively more abstract at each level of comparison e.g., data were compared with data, data with categories and categories with categories (Charmaz, 2006). Data analysis and collection took place simultaneously which allowed for deeper exploration of similarities, differences, and associations between categories within the data (Charmaz, 2006). CGT highlights the importance of the researcher’s role in constructing meanings (Charmaz, 2006). This position argues for flexibility in the analytical process to improve credibility (Creswell, 2007) thus reflexivity and transparency are required throughout the research process.

Recruitment of participants

Participants were recruited from adverts on social media – Facebook, Twitter, and Instagram. A third sector charity advertised the research on their website. Interested individuals were directed to an online survey which was used to outline information about the research (using Qualtrics XM Software, 2019; Qualtrics, Provo, UT; Appendix I) and assess inclusion suitability (see Table 1) Potential, suitable, and consenting participants were contacted by the researcher to

invite them to an interview. A convenience sampling method was employed and moved onto theoretical sampling as analysis progressed.

Table 1:

Inclusion and exclusion criteria for participants

Inclusion Criteria	Exclusion criteria
<ul style="list-style-type: none">• Aged eighteen or over• Reporting having a diagnosis of anorexia nervosa• Currently living in the UK• First language English• Consenting to provide contact details	<ul style="list-style-type: none">• Comorbid diagnosis of psychosis• BMI 14 or under• Currently admitted as an inpatient

Participants

Twelve participants were interviewed. Participants were resident in the UK and all identified as female. Participant's age ranged from 19-39 years (mean = 25.3 years). A range of BMIs were included (mean = 17.1). All participants had undertaken higher education (College n=4; Undergraduate n=5; Postgraduate n=3). Two women had additional diagnoses, which we have chosen to omit here as to ensure anonymity. The sample characteristics are shown in Table 2.

Table 2

Overview of participants

Participant (all names are pseudonyms)	Age	BMI	Ethnicity	Education level	EDE-Q global score	CTES
Alice	27	20	White other	Postgraduate University	2.8	Parental Divorce/separation Parent with depression Major upheaval
Lara	26	21	White British	Postgraduate University	2.4	Family Member Death Sexual Abuse Physical Abuse Physical illness
Marie	22	18	White British	Undergraduate University	4.4	Family member death Parental Divorce/separation Sexual Abuse Major upheaval
Rose	29	16.7	White British	Undergraduate University	2.04	Family member death Parental Divorce/separation Sexual Abuse Physical Abuse Physical illness
Sarah	19	22	White British	College	2.2	Family member death Sexual Abuse Physical illness major upheaval
Mandy	39	18	White British	Undergraduate University	0.1	Family member death Parent divorce/separation Major upheaval
Ellie	25	21	White Irish	Undergraduate University	1.5	Parental divorce/separation Sexual Abuse Physical illness Major Upheaval
Lydia	32	15	Asian / Asian British, Indian	Postgraduate University	4.9	Family Member death Physical Illness Major upheaval
Hayley	21	15	White British	College	1.6	Sexual abuse Physical illness Major upheaval
Meredith	21	16.5	White British	Undergraduate University	4.04	Family member death Sexual abuse Major upheaval
Lauren	21	20	Black British	College	1.6	Family Member death Sexual abuse Physical abuse Physical illness Major upheaval
Emma	22	18	White British	College	2.9	Family member death Sexual abuse Physical abuse Major upheaval

Data Collection and Procedure

Data collection

Data was collected by semi-structured in-depth interviews which provide flexibility and allow for follow-up prompts (Barker et al., 2016). The lead researcher interviewed all participants through Zoom videocall. Prior to interview, participants were directed to Qualtrics survey where they read the information sheet and provided their informed consent (Appendix I). The Eating Disorder Examination Questionnaire (EDE-Q 6.0; Fairburn & Beglin, 2008) and demographic information was also completed through Qualtrics. The researcher invited participants to interview via email.

Interviews were commenced and lasted between 60 and 90 minutes. Participants then completed The Childhood Traumatic Events Scale (CTES; Pennebaker, & Susman, 1988) with the researcher. A participant debrief took place after the interview to allow reflection on the research process and to assess risk. Participants were emailed a debrief sheet (Appendix L), containing additional support services if required.

Interview schedule

A semi-structured interview schedule was developed in line with Charmaz (2014). The collaborative nature of creating the interview schedule provided the opportunity to be reflexive about the nature of the questions. Using GT principles, the interview schedule was adapted three times as ideas and concepts emerged during the early data analysis. This allowed for constant comparisons with subsequent data to identify key processes and other analytic ideas emerging out of the data. To achieve this, three interview schedules were developed by the research team and adapted in line with the participants experiences.

The final interview schedule comprised 15 open-ended questions with prompts exploring experiences of the AV, negative childhood events, emotions and interactions between the three (Appendix R). Original interview schedule in Figure 1.

Figure 1
Interview Schedule

Before commencing the interview, revisit confidentiality and ensure the consent form is signed and the participant has read the participant information sheet. Participants are reminded that the interview is being recorded and transcribed and that they have the right to withdraw.

Introduction:
At the start of the interview, begin with: Thank you for taking part in this interview. The questions will be looking at your personal experiences and understanding of the anorexic voice, your childhood, and your emotions. I understand that these topics can be potentially distressing such as negative childhood experiences. Your participation is voluntary, and you can ask to stop the interview at any time. Likewise, if you disclose information during conversations with the researcher indicating that you or someone else is currently at immediate risk, e.g. current abuse, the researcher will need to act. At this point we will stop the interview and I will inform you of what the next steps will be.

There will be time at the end of the interview to ask any questions.

1. Lots of people with a diagnosis of anorexia nervosa talk about experiencing an internal voice related to the anorexia – Is this something you have experienced?
2. Can you tell me more about what your experience of the anorexic voice has been?
 - a. What is this like for you?
 - b. What does it say to you?
 - c. Does it comment on any aspects of your life?
3. Can you tell me about what life was like for you when you were growing up?
 - a. Who was at home?
 - b. Can you describe your relationship with...?
 - c. Can you give me an example of...?
4. Could you please tell me a bit more about what school was like for you?
 - a. What did you like/dislike?
 - b. How long were you at school?
 - c. Who do you remember from school?
5. Could you describe if the anorexic voice impacted on your childhood in any way? If so, how?
6. Could you please tell me about how people in your family experience emotions?
 - a. What do you think about that?
 - b. How has that impacted on you as a person?
7. Would you be able to tell me about how you experience emotions?
 - a. How do you know you are feeling X?
 - b. Who would you turn to when you were upset?
 - c. How would you let others know how you were feeling?
 - d. What do you do when you are feeling X?

8. How does this fit with your eating disorder?
9. Would you be able to tell me about any important people in the journey of your anorexia?
10. In your opinion, what events/influences might have precipitated the onset of your disorder?
11. Would you be able to describe to me what is helpful/unhelpful about the anorexic voice?
12. Is there something that you might not have thought about before that occurred to you during this interview?
13. Is there something else you think I should know that maybe I haven't asked about?
14. Do you have any questions for me?

Close, thank for time and move to debrief.

General Prompts

So you've said X and Y – when did your eating disorder start?	In what way?
When we talk about X what comes to mind?	Can you tell me more?
Isn't that interesting, what was that like for you?	What did you do then?
How did that feel?	Can you explain a bit more about that?"
That sound like it's a particularly important (experience/memory/issue etc), I'd like to hear a bit more about that	can you explain what you mean?
What private thoughts and feelings did you have after this experience?	Is there anything else about...?
What did you not want anybody else to know?	Are you able to give me an example?
What were you feeling then/now?	what thoughts were you having then/now?
What is it you are feeling?	What feelings are attached to these thoughts?
What is the <u> </u> [e.g. missing ingredient]	Can you tell me more about those feelings of <u> </u> ?
	What are those feelings of <u> </u> like?
	Can you tell me in your own words?

Measures

Prior to the interview, participants completed the EDE-Q (Fairburn & Beglin, 2008; Appendix J) through Qualtrics. This data was gathered to situate the sample and provide context about their ED pathology and mood, that may influence their experiences. Three participants had a score higher than four, indicating that most of this sample had relatively low eating pathology at the

time of interview. The CTES (Pennebaker, & Susman, 1988; Appendix K) was completed with the researcher after the interview. This questionnaire recorded data around participants childhood trauma. Table 3 gives a description of measures.

Table 3

Description of questionnaires administered

Questionnaire	Description of content and scoring	Clinical cut off point	Internal consistency reliability co-efficient
Eating Disorder Examination Questionnaire (EDE-Q 6.0; Fairburn & Beglin, 2008)	A 28-item self-report questionnaire covering characteristics of individuals' ED with additional questions about height, weight, and missed periods. This transdiagnostic measure can be used to assess all ED. Participants are scored along four dimensions, summed and averaged for the global score: restraint; eating concern; shape concern; weight concern.	Global score of ≥ 4 (Bardone-Cone et al, 2010; Carter et al., 2001; Jennings & Phillips, 2017; Mond et al., 2006). This cut off point has been used to identify those recovered in other research (Williams et al., 2016).	High across the five scores: global score, $\alpha = .95$; restraint, $\alpha = .85$; eating concern, $\alpha = .81$; weight concern, $\alpha = .83$; shape concern, $\alpha = .91$ (Aardoom et al., 2012).
Childhood Traumatic Events Scale (CTES; Pennebaker, & Susman, 1988)	The CTES assesses childhood traumatic events that occurred prior to the age of 17. Domains include death of a family member or a very close friend, parental divorce or separation, traumatic sexual experience (e.g., raped, molested), victim of violence (e.g., child abuse, mugged or assaulted), been extremely ill or injured, and other major upheaval. For each question, the participant is asked to recall the age of trauma, perceived intensity of the trauma, and whether or not the trauma was confided to others.	Each domain is scored from 0 to 7, 0=no exposure, 1=not at all traumatic, 4=somewhat traumatic, 7=extremely traumatic. To operationalize the assessment the ratings on each of the 6 domains are summed to derive a score (childhood traumatic burden) that ranged from 0 to 42 (6 domains X rating up to 7 for each domain).	The CTES has been shown to have good reliability and validity (Pennebaker & Susman, 1988), and demonstrate sensitivity to a diverse range of clinical symptoms following early life trauma (Pennebaker & Susman, 1988; Scheller-Gilkey, Moynes, Cooper, Kant, & Miller, 2004; Thakkar & McCanne, 2000)

Ethical Considerations

Full ethical approval was obtained from Cardiff University ethics committee before recruitment began (Appendix M). Ethical and risk factors were considered with primary importance.

Participating in research which discusses traumatic events is thought to have a low likelihood of significant emotional harm (Newman & Kaloupek, 2004). It appears that while unexpected

distress does occur for some participants, this distress is tolerable and in fact linked with positive outcomes e.g. self-identified insights (Newman & Kaloupek, 2004). A comprehensive risk management procedure was developed to ensure the safety of participants throughout the research process (Appendix H).

Data analysis

Interviews were recorded during the video and transcribed verbatim. Interview data was analysed using Nvivo Software (QSR International, Version 12) which stored raw data and codes.

Reflective journal and memos were kept in a separate document. Analysis was a dynamic process where collection and coding occurred in parallel. Data was constantly compared with data and codes as they emerged. For credibility of data analysis, multiple analysts were consulted as well as participants. Every level of coding involved the research supervisors and group of research peers.

Coding

Each transcript was initially coded line by line, remaining open to analytical possibilities and capturing the meaning. As recommended by Charmaz (2006), questions were asked of the data to guide the coding process: “What process(es) is at issue here? How can I define it?” and “When, why and how does the process change?”. The constant comparison method was used to cluster the initial codes into larger and more abstract categories, which then became focused codes.

Focused codes help to condense, synthesise, and explain larger segments of data thus indicating theoretical direction of the data. For constant comparison, codes were compared with codes and the raw transcript. Focused codes were reviewed, and similar codes collapsed together if deemed appropriate through constant comparison to initial codes and transcripts. Focused codes with the

most theoretical weight were lifted into conceptual categories and other focused codes collapsed into these. Theoretical coding was used to identify links between the conceptual categories, codes and concepts, leading to development of an interpretive theory and framework. Examples shown in Table 5 and Appendix P.

Table 5

Example of coding process

Raw Interview extract (<i>Sarah</i>)	Initial Coding	Focus coding	Category	Theoretical concept
Um, so, I felt very alone and it sort of felt like it was the one thing that I could rely on that would be there for me, um, and that was just sort of talking to me. I guess at that point I had somewhat externalised it because it didn't feel like I was just, you know, talking to myself. Um, but it certainly had like quite a positive characteristic because I felt so alone, and that it was sort of the only thing that was really there for me.	Feeling alone Relying on voice Voice being there for me Talking with voice Starting to externalising voice Not feeling like talking to myself Describing voice as having positive characteristics Feeling alone; Describing voice being supportive	Experiencing loneliness Voice providing similarities to friendship Seeing voice as part of self Positive characteristics of voice Experiencing loneliness Supportive Voice	Loneliness Comforting Sharing self with Voice: 'Evil twin' Comforting Loneliness Comforting	Internal Unsafety 'You're safe with me' Self: 'Evil twin' 'You're safe with me' Internal unsafety 'You're safe with me'

Theoretical sampling

Theoretical sampling is a method used to guide data collection shedding light on the emerging categories within the data and to reach theoretical saturation (Charmaz, 2006). The process involves the researcher asking questions of their data and identifying areas with limited understanding. Reflective journal and supervision recognised a need to address the living location of participants. Due to the research taking part during COVID-19 pandemic, recruitment

was limited to social media and third sectors; therefore, recruitment was initially worldwide. Following supervision and discussion of potential risk factors, sampling was limited to UK based participants. The research team reviewed the emerging data regularly through the process of data analysis. Following interview nine, initial coding, focused coding, evolving category development and memo writing informed final changes in the interview schedule. No further changes were made as data supported developing categories and theoretical concepts (Appendix O)

Methods to enhance and control Quality

Elliott et al. (1999) provides guidelines for ensuring qualitative research is valid and reliable that require subjective elements of analysis to be monitored and reported. Several methods were used to enhance quality control (Table 4)

Table 4

Methods used to ensure quality control

Guidelines	Method to ensure quality control
(Elliot et al., 1999)	
Owning one’s perspective	<p>The researchers positioning, interests, and assumptions were outlined in Reflexivity section below</p> <p>To ensure these were not imposed on the data, a reflective journal and memos were kept throughout. This allowed the researcher to own their own perspective. Following interviews, researcher was able to comment on when their own values or assumptions may be being placed on the data (Charmaz, 2014).</p> <p>Supervision from the research team and peer supervision helped to recognise when researcher’s perspective may be impacting the data. This allowed for reflexivity and perspectives/opinions/values to be bracketed out (Crotty, 1996).</p>
Situating the sample	<p>Sufficient descriptive characteristics of the participant sample were provided; however sufficient data is removed to ensure anonymity.</p> <p>Discussion with the research team supported reflecting on the recruitment process, including the limitations of self-selecting samples, recruitment restrictions and ethical considerations. Reflective journal was used to explore these ideas.</p>
Grounding in examples	<p>Providing direct interview quotations so readers can explore the fit between the researcher’s interpretation and the raw data. Examples of theoretical sampling, reflective journals and memos are also included in the Appendices to demonstrate processes of data collection and analysis.</p> <p>Ensuring that quotations support anonymity and removing quotations that could be retraumatising for the participant. Using pseudonyms to ensure anonymity.</p> <p>Using memos, research supervision, peer supervision and reflective journaling to explore usage of quotations in the analysis and to consider why these were chosen over others.</p>
Providing Credibility Checks	<p>Supervision and peer supervision were regularly used throughout the collection and analysis process.</p> <p>The research team listened to first interview to review first author’s interview style, ensuring no leading questions or responses in interview. Research team involved in reviewing data analysis and supporting data. Further, research team and peer supervision enhanced the bracketing of reflexivity.</p> <p>A reflective journal was used throughout which allowed for transparency in the data collection and analysis process, providing audit trails for emerging themes and categories. Memos writing also aided the provision of an audit trail, ensuring it was grounded in the data. By documenting the researcher’s ideas and analysis, memos provided a space for personal and epistemological reflexivity (i.e. Thompson & Harper, 2012).</p> <p>Quotations were used to ground the analysis and provide exemplars from the transcripts. Pseudonyms are used throughout.</p>

Reflexivity

CGT recognises the researcher is not a neutral, value free observer in the research process (Charmaz, 2014). The researcher brings their own epistemology, perspectives, and interactions from personal and professional experiences. Reflexivity is crucial as it allows for constant consideration of the impact of the researcher on theory development throughout the analytic process.

The lead researcher is a 30-year-old white Scottish woman undertaking doctoral training in Clinical Psychology, including theoretical teaching in ED and experience of working in trauma services. The researcher acknowledges preconceptions and perspectives regarding the impact of trauma in childhood and theoretical understanding of AN. The research was supervised by two white British Clinical Psychologists with experience working clinically with people who have ED. Both supervisors have also conducted their own research using GT to investigate ED.

These factors may have compelled the researcher and supervisors desire to identify emergent theory based on preconceptions and previous knowledge. By using memos (see Appendix Q) and reflective journal (see Appendix S) pre-conceived ideas were bracketed off and these influences mitigated and managed. Regular supervisor research meetings allowed the preconceptions and previous knowledge of all researchers to be bracketed, reducing the potential influence over, for example, the interview schedule development, recruitment, and data analysis.

Respondent validation

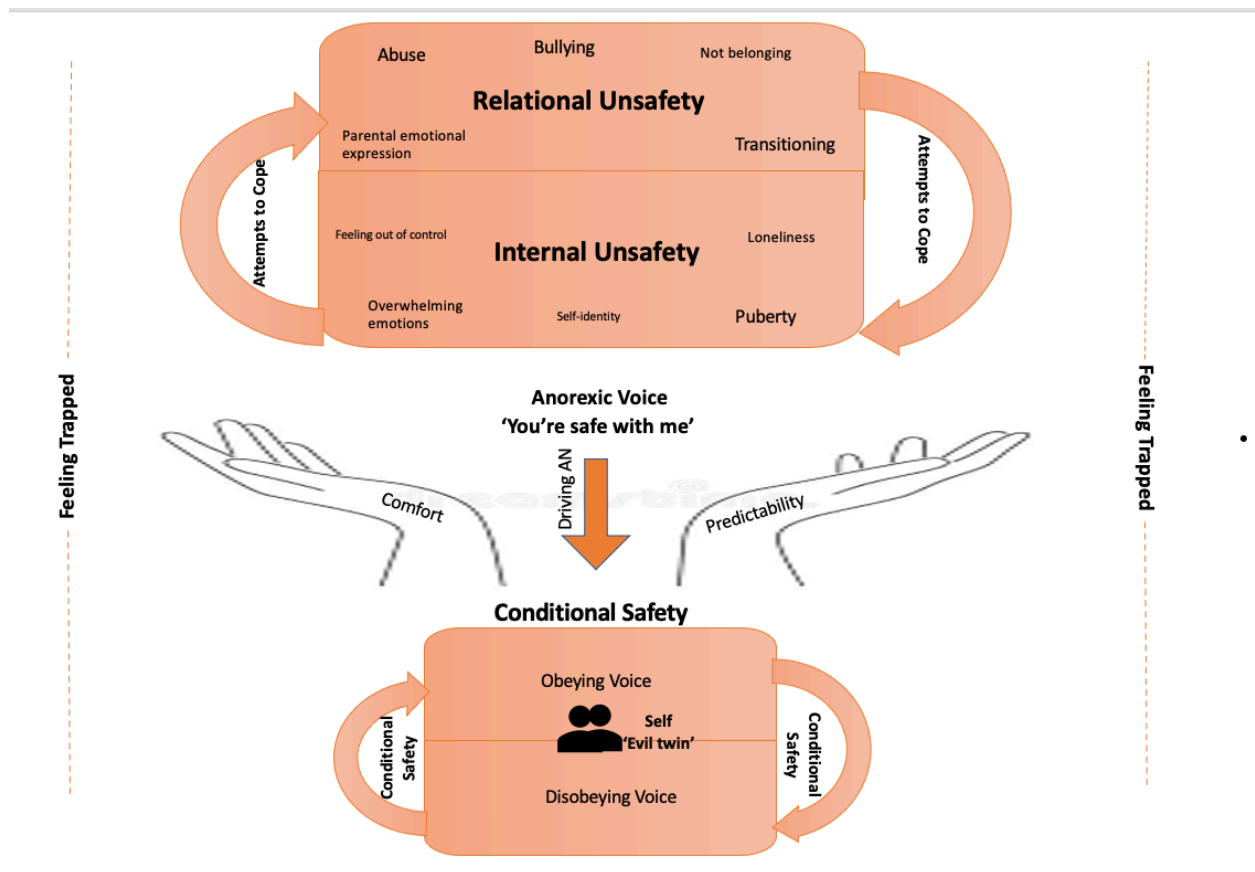
Participants were consulted by the researcher to verify that results and diagrammatic summary were an accurate reflection of their experiences. A copy of the model was emailed to participants. Responses were incorporated into the final theory. Participants expressed that the findings considerably explained their experiences with their AV, childhood, and emotions. Feedback identified that results and model reflected their personal experience and were comprehensible.

Results

An explanatory framework of the relationship between childhood experiences, emotions and the AV was developed through a grounded theory approach (Charmaz, 2006). Each category and concept are described below with illustrative quotes. Figure 3 provides a diagrammatic representation of the theory and relationship between categories.

Figure 3

Diagrammatic summary of grounded theory representation of perceived associations with the AV



Overview of the model

All participants described experiencing an AV that was predominantly focused on food intake, weight and shape, and exercise regime. Participants recalled feeling unsafe across a variety of relationship-based experiences in childhood, both at home and school; the researcher termed this feeling “relational unsafety”. Examples of relational unsafety were abuse, bullying and having emotionally erratic parents and the experiences of meeting new people in an unfamiliar environment in the transition to secondary school. Experiencing interpersonal relationships as unsafe appeared to influence participants’ sense of threat from overwhelming internal experiences, including overwhelming emotions, feeling out of control, and loneliness; the researcher termed this “internal unsafety”. Puberty was another factor that participants described as generating internal unsafety. Participants described attempting to cope with both types of unsafety with two inter-related methods: not confiding in anyone and striving for perfection. The AV appeared to provide participants an experience of safety, ‘you’re safe with me’; however, this safety was conditional on participants obeying the rules set by the AV. By promising safety, comfort and predictability the AV was central in driving AN behaviours. When participants did not obey the AV (due to exhaustion, engaging with mental health services or loved ones), the AV was described as becoming increasingly abusive. This often led participants to succumb to the AV and re-engage with AN behaviours thus placating the AV. Participants described experiences of feeling trapped in childhood as being mirrored by the experience of feeling trapped by the AV. These key concepts, and how they inter-relate, will now be described in more detail.

Relational Unsafety

Physical and emotional abuse in childhood were commonly reported by the participants. Those who did not experience physical or emotional abuse described a home life marked by distressing changes to valued support systems, such as those caused by domestic violence, parental illness, divorce, or death in the family. Sexual abuse was noted by many participants on the CTES, with two exceptions, and some participants briefly described sexual abuse in the interviews. None of the participants chose to discuss this any detail in the interview process.

I would like lean over the bath to like wash my hair if that makes sense she [mum] would like accidentally hit my face on the side of the bath until my nose would bleed (Lara)

These experiences appeared to generate feelings of uncertainty in participants, or ‘*walking on eggshells*’ (Rose), and doubt in their ability to cope with situations. Domestic violence and abuse evoked feelings of shame and anger in participants. Participants did not communicate these feelings with anyone for fear of the perceived consequences of asserting themselves. For the participants who experienced abuse, uncertainty overlapped with feelings of dread and fear in the presence of the abuser.

‘You hear the person coming up the stairs and that fear, that dread.’(Emma).

All participants recalled a lived experience of one parent being emotionally unpredictable and the other parent being emotionally suppressive. Participants’ accounts suggested that the unpredictable parent tended to be abusive; the parent would ‘*really randomly really suddenly get like really cross at us for something quite minor*’ (Alice). Participants appeared to blame themselves for causing the outburst of emotion. Participants’ self-blame and fear of further

provocation of emotional outburst appeared to inhibit their ability to assert themselves or express their emotions towards their parent. By avoiding communicating their emotions, participants seemed to create a distance between themselves and their parent which felt safer than engaging relationally. However, this led to feeling loneliness:

I just saw a different side of my mum really stressed and upset [...] I didn't really know that version of her em which naturally made me not really want to be with that version of her em and so like I definitely withdrew from her (Lauren)

All participants experienced appearance-focused and emotional/psychological bullying at school. Individuals described attempting to change themselves to placate the bullies. Bullying appeared to confirm self-beliefs about being a bad person which destroyed self-confidence. This self-belief could potentially be related to experiencing relational unsafety at home and developing a tendency to blame themselves for others' behaviour toward them. Despite participants' efforts to change aspects of themselves, the bullying continued. This created a sense of powerlessness, feeling trapped and lack of control in the interactions:

I systemically blame myself for my childhood bullying my childhood abuse I used to fully fully believe that it was always my fault I must have done something to deserve this (Lara)

Transitioning to high school was seen as a particularly difficult time, evoking overwhelming feelings of anxiety resulting from a loss of familiarity and predictability from primary school and the sense that they did not belong in this new social environment. Not belonging appeared to impact on the belief that the participants were different to others in some way, and exacerbated

anxiety about interacting with new people in new situations. Participants retreated increasingly into themselves during this period and appeared to disengage with the world around them.

it was quite a rough year it was like going from primary school and like having loads of fun and then...and meeting loads of people some who were horrible and not making friends and then having them say stuff about you just like these really having lots of life lessons in like a short space of time and like not being able to process it that well (Alice)

Feeling relationally unsafe was intensified by puberty, which enhanced the perception of being different from others. Participants spoke about feeling uncomfortable in their changing body, feeling unprepared for puberty, and interpreting their changing body as becoming fat.

I guess what I didn't like was when I hit puberty even though I was never overweight like not even like probably mid range normal but like but that like wasn't like what I was used to so I guess what made me uncomfortable (Alice)

Experiences in childhood, such as bullying and abuse, appeared to have an accumulative impact on participants' sense of identity. Relational hostility, criticisms from parents and bullies, appeared to lead participants to believing they were not good enough, undeserving and worthless. Participants described an identity characterised by being a bad person. This was highlighted when participants described a dislike for themselves. Some participants also discussed relational hostility disrupting the development of their self-identity as they did not feel safe enough to express themselves or explore their interests in childhood:

your friends should keep in touch with you, and if they didn't keep in touch with me, well, I must have been a bad person or a bad friend.... And my parents were divorcing at the time[...].for me to reach the conclusion that, oh, I'm obviously just a bad person?(Ellie)

The AV developed at a time when participants described feeling relationally unsafe. Participants described creating a protective bubble of comfort and protection that blocked out relational

hostility. When life felt increasingly uncertain, participants described the AV guiding a set of rules to be obeyed, offering praise when they followed its rules. This helped the participants to feel they were achieving something and being successful, counteracting beliefs that they were bad:

sense of control and you know it was blocking out in my life like there was a lot going on that was quite difficult and it was sort of yeah putting a bit of a screen up against it like a protective bubble (Meredith)

Internal unsafety

Participants described how experiencing interpersonal relationships as unsafe appeared to influence their internal experience:

(Relating to others) growing up, they are not taught emotions, they are not taught to identify them, express them, what's appropriate, what's not appropriate (Emma)

Overwhelming feelings were described as a co-occurrence of a variety of emotions, including anxiety, anger, fear, shame, guilt, self-blame, and disgust. Emotions appeared to be poorly understood and were therefore experienced with confusion. Participants reported experiencing emotions deeply and finding these emotions intensely unpleasant. This highlights a potential parallel between participants experiencing one parent as unpredictable and untrustworthy due to their emotional expression, which might have fostered an untrusting relationship with their own emotions:

I've always had an issue with like I feel things very deeply and I I I used to hate that I used to think that that was like a bad thing and I used to get overwhelmed by it quite easily (Rose)

Participants described not knowing how to deal with emotional distress and not trusting their bodies to cope with overwhelming emotions leaving them worrying about expressing strong emotions incorrectly or inappropriately, so they would choose to keep their emotions hidden. The AV was suggested by participants as offering them a method of expressing their overwhelming emotions. Through dietary restriction they were able to convert their emotions into something physical which they felt was easier to deal with. They described this positively as restriction numbed the emotional experience:

what I can't say with words with my body like you know my eating disorder is very much it's a way of expressing myself that when I can't use words I can show people with my body (Rose)

Loneliness appeared to be both an internal and external process. On one hand, the participants experienced loneliness as something forced upon them by others, e.g. through emotional/psychological bullying. On the other hand, participants avoided communicating emotionally with others e.g. from fear of unpredictable responses. One participant described experiencing poor emotional connection and hostile relationships with others in childhood as creating a 'void of emptiness' (Lydia) within her. This emptiness suggested that she felt emotionally and relationally lonely. The 'void of emptiness' appeared to lead participants to seek comfort in the AV:

you would then revert to your inner self go away and lock yourself up and spend time and that loneliness becomes bigger and then to fill that empty void you then start to create an inner friend in a voice which then comes becomes part of you or part of the world (Lydia)

The AV appeared to combat a sense of loneliness whilst affirming relational unsafety. Participants described the AV as a friend who understood how they were feeling. Acting as ‘*companionship like a friend*’ (Lydia), the AV reduced individuals’ sense of isolation, replacing friendships and providing comfort when others were hostile. This seemed to increase reliance on the AV and mistrust of others. Remaining focused on the AV narrowed their interests and limited awareness of the negative events in their life, avoiding intolerable emotions and thus feeling in control. The AV offered a safe place to be where participants did not have to participate in the real world, creating a distance from relational unsafety:

the anorexia kind of [pause] makes your world smaller..... becoming interested in solitary sports like running and training for a marathon meaning that you spend five hours of your Sunday outside away from anyone else (Lara)

Attempt to Cope with unsafety: Not confiding in others and Striving for perfection

As discussed, the participants often chose not to express their emotions outwardly due to feeling relationally unsafe. Not confiding in others appeared to be a strategy used to disconnect from others who were seen as threatening, absent, or judgemental:

I always felt quite like removed from them cause em I was always like had this whole big thing going on in my life but I just didn’t tell anyone (Alice)

Striving for perfection was another attempt to feel a sense of relational safety before the development of the AV. Participants described a belief that others would only love and accept them if they were perfect, counteracting the hostility they experienced. When participants were

unable to achieve perfection, they felt like a failure which elicited feelings of shame, guilt and disgust, leading back into a feeling of relational and internal unsafety.

When the AV emerged it appeared to have qualities that mirrored these coping strategies. It took the place of other relationships, and offered participants someone to confide in. Secondly, the AV took on the conditional style of perfectionism by providing safety contingent on following achievement-based rules:

(Describing perfection) you need to be thinner for people to like you you need to be prettier prettier means thinner thinner means you'll be accepted when you accept it you have more friends if you have more friends then your life won't be lonely your parents will like you better because they'll be proud of you (Lydia)

Conditional Safety: ‘You are safe with me’

Although the AV was described as providing an antidote to relational and internal unsafety, participants described this safety as conditional. It is notable that this reflects the perfectionistic coping style that they described developing in response to unsafety, which entails self-worth that is conditional on achievement.

It was comforting, it was reassuring, it made me feel safe (Mandy)

The AV had a ‘*behavioural code*’ (Sarah) focused on calorie intake, body shape and exercise, which participants needed to obey, or it would become like a ‘*a drill sergeant in your head*’ (Lara) giving forceful orders. By commenting ‘*you're still not good enough*’ (Rose), the AV would belittle the participants into obedience. If participants disobeyed the AV, they described feelings of failure, guilt and disgust which were intolerable. The AV was depicted as creating a

sense of ‘*the world was ending*’ (Lara) by becoming more hostile and evoking feelings of anxiety and fear if they did not follow its rules. It was notable that the sense of the world ending echoed the sense of fear that participants described in anticipation of abuse and bullying in childhood.

And it was the same with the eating disorder voice, you know what’s going to come next if you don’t do what it says. It’s almost like that bully, I guess, like that angry parent, angry bully, you are waiting for it [...] it goes from zero to one hundred in terms of if you don’t do what it’s saying (Emma)

Participants described a relationship with the AV that mirrored the descriptions of dynamics that some had experienced when groomed in childhood. For example, the AV was perceived as using strategies to keep the individual dependent: issuing threats and bribes, isolating participants from others and exploiting vulnerabilities, e.g., low self-confidence. The AV was also described as encouraging the individual to keep it a secret from others. As previously mentioned, all participants experienced sexual abuse, except for two, and it is therefore possible that the perceived relational dynamics with the AV were influenced by traumatic relational experiences.

It would just be like, it’s okay. No one else has to know about it. It’s absolutely fine. And, you know, we can do it one time. If you don’t like it, we don’t have to do it again. It’s, you know, it’s absolutely fine. It’s going to – but you need to do it (Sarah)

The AV was often described as initially “*sounding like me*” (Alice), creating a sense that it is trustworthy. There was also the sense of the AV being factual rather than emotional which not only made it increasingly trustworthy but also easier to obey. When obeying the AV, participants described it as a ‘*a guiding light*’ (Rose) promising to make them a ‘*better person*’ (Hayley) which was ‘*comforting and reassuring*’ (Mandy). In contrast, when disobeyed, participants recalled the AV as becoming increasingly hostile and powerful by mimicking the tone, volume

and comments on appearance or self-worth received by abusers or bullies. The AV speaking in these ways evoked guilt and disgust, which were described as “*weapons of the voice*” (Ellie):

those vulnerabilities from my childhood all of those experiences of fear and shame and wanting the ground to swallow me up and kind of how the anorexia mimics that (Alice)

Participants gained a sense of power and success from obeying the AV compared to their relational experiences where they felt worthless and trapped. Disobeying the AV was described as evoking a sense of ‘*failure because I didn’t do what I was told*’ (Lauren) and confirming their self-belief of being a bad person:

that voice was for me you know it was a coping mechanism because it offered me guidance and a way to feel strong and to feel powerful when actually in my real life I felt quite trapped in many ways (Rose)

Participants appeared to obey the AV’s rules in order to maintain a physically small body, which was seen as protective– ‘*if I was smaller I was safer*’ (Mandy). In a context of abuse and bullying, a small body was suggested as occupying less physical space and becomes less likely to attract attention offering protection from further abuse.

I think I sort of figured that if I took up less space, if I was just small and not there, there would be nothing that they could pick on (Sarah)

In contrast, many experienced disobeying the AV as creating a battle. This battle was both internal (between the self against the AV) as well as external (services or family against the AV). Externally, participants experienced control being taken from them by services and increasing conflict with family. By engaging with services, participants often gained weight which made

them feel disgust, described as ‘*ants crawling on skin*’ (Ellie). The AV seemed to suggest to the participants that this was evidence that others were threatening, untrustworthy and did not have their best interests at heart:

It’s really conflicting because ...I can only trust the anorexic voice I can’t like trust like other people so I’d just keep listening to it (Hayley)

Obedying the AV stripped opportunities to develop skills and a sense of self away from AN therefore participants were left feeling trapped. Participants spoke about feeling increasingly fragile in their identity, entrenched, and absorbed in the AV with no escape. This appeared to be to the point of losing awareness of themselves and the world around them – and just ‘*existing in that space*’ (Ellie).

I think when I’m in the moment it doesn’t feel like that necessarily cause it’s like I said it’s so wrapped up in who I am I can’t really see it as anything other than just what I am doing at that time (Meredith)

Self – Evil Twin

Over time the AV appeared to shape the participants’ sense of self identity. Participants became increasingly intertwined with the AV which created an identity and a way for others to know who they were. The AV was named an ‘*evil twin*’ (Mandy) where it gave participants something to achieve in and be proud of however also made them feel bad about themselves. Participants described a hostile side of the AV limiting their life and criticising them. In some ways the AV was described as developing into an abuser.

the angel part of me [...] wanted to be well, wanted to live a normal life, wanted to be 18 and out with friends and [...] having fun. But that evil twin bit of me wouldn't allow that, or couldn't allow that to happen. (Mandy)

Participants spoke of the AV stripping away the external world, e.g. missing large portions of school. Whilst it is not within the scope of this paper, the participants mentioned recovery threatening to leave them without a sense of self or connection to others by taking away the AV. They discussed finding it hard to think of life without the AV and feared returning to being internally unsafe. This appeared to act as a barrier to recovery.

I don't really know what I would do without it because I feel like from age 10 to 20 they are probably quite important years em and mine have been lost to like anorexia or whatever so I don't really feel like ive got anything else left (Meredith)

Discussion

Summary of the theory

The current study aimed to explore the link between adverse life experiences, the AV, and AN. The AV appeared to develop during periods of perceived relational and internal unsafety associated with adverse relational experiences (e.g., appearance-related bullying). It emerged alongside AN symptoms and appeared to drive AN behaviours. While participants noted that the AV provided comfort, predictability, and friendship amid adverse experiences, the safety provided was conditional on adhering to strict behavioural rules. The AV reinforced obedience with praise and reassurance, aiding individuals in feeling successful and worthy. When individuals disobeyed the AV by breaking its rules, e.g., around eating, the AV withdrew safety becoming increasingly hostile and belittling, revealing similar characteristics to abusers and bullies in childhood. This would activate individuals' unpleasant emotions from childhood, such as guilt and disgust. Following a similar strategy when attempting to placate abusers or bullies in childhood, individuals adopted a submissive position to the critical and attacking AV. Individuals would then often return to obeying the AV, thus maintaining the AN behaviours. Over time, the AV strengthened individuals' self-identity as being 'anorexic'.

The AV and negative childhood experiences

One key finding from the study was that traumatic experiences were often internalised by the participant which meant they heard the AV as if it was the abuser or bully. This may be linked to a process of dissociation where the individual disconnects emotionally and psychologically from a threatening experience (Pugh, 2018). However, the traumatic events or conflict is then experienced as an internal voice. Longden et al (2012) reported a similar theoretical construct

within their trauma-dissociation model (TDM), where auditory hallucinations are dissociated content arising from maltreatment.

A commonality between individuals was experiencing emotional abuse by caregivers and/or bullies. Research has suggested childhood emotional abuse has the greatest impact on ED symptomatology (Guillaume et al., 2016; Rai et al., 2019). Sexual and emotional abuse frequently co-occur (Kim et al., 2017; Jonson-Reid et al. 2003). Individuals had also experienced sexual abuse and described the AV as engaging in behaviours that were like grooming experiences. The present theory therefore outlines a mechanism by which the AV mediates the link between childhood trauma and AN, i.e., by modelling past abusive.

The AV, negative experiences, and relationships

Following emotionally unpredictable caregivers who may have met emotional expression with punishment, individuals fostered an untrusting relationship with their own emotions. The AV was viewed positively in terms of its ability to protect the self by keeping individuals detached from feelings and disconnected from others. Wesselius et al. (2020) suggest children “self-silence” about negative childhood experiences. Our findings are in keeping with Fox and Power’s (2009) SPAARS-ED model highlighting similar theoretical points where an individual’s emotional reactions are a result of their past experiences in family environment, attachment patterns, and experiences of abuse. The present study’s findings also resonate with studies reporting individuals with EDs experience high levels of negative emotions but fail to express them (Fox & Froom, 2009; Henderson et al., 2018).

A further key finding in the present study was that individuals seemed to transfer important parental functions (e.g., stability, comfort), from caregivers who were unable to meet their needs,

to the AV supporting literature reporting greater attachment insecurity in individuals with AN than healthy controls (Gander et al., 2015). It appears the companionship and comfort of the AV allowed individuals to dismiss the importance of other attachment relationships, whilst continuing to fear the AV rejecting them. Despite the relationship with the AV causing further harm, it was seen as preferable to engaging in threatening relationships. This echoes findings of previous research describing the relationship with the AV as similar to being trapped in a toxic relationship (Tierney & Fox, 2011).

Bullying victimization has been associated with a range of ED symptoms such as restricted eating, in both clinical and non-clinical populations (Copeland et al., 2015; Day et al., 2021). This coheres with experiences of individuals in the present study, all of whom had experienced bullying. Individuals reported that subsequent loneliness and not belonging created a need for companionship, which then arose in the form of the AV. Bullying in childhood is associated with an almost doubling of the likelihood of experiencing hearing voices (Schreier et al., 2009; Løberg et al., 2019). The AV could be seen as providing a friendship to meet unmet relatedness needs by promising socially accepted thinness (Banerjee & Dittmar, 2008).

The AV, negative experiences and self

Stockford and colleagues (2019) found that women with AN have a diminished sense of self with AN becoming part of their identity. In the present study, the AV gave individuals an acceptable identity, countering the belief that they were a bad person. Relating to the dissociation mentioned above, the AV might be seen initially as the individual's attempting to develop a false self that reduces the impact of trauma thus avoiding intolerable negative affect (McIntee & Crompton, 1997). However, as individuals engaged in recovery, the AV was seen as depriving

them of opportunities to develop an identity away from the AN, e.g., by encouraging individuals to restrict food intake. This is consistent with Williams, King, and Fox's (2016) findings that participants described an intense fear that without AN, they would be no-one. By defining themselves in terms of AN and equating their self-worth with low BMI, individuals develop a reluctance to leave the AN creating a barrier to recovery (Lamoureux & Botorff, 2005).

Verstuyf and colleagues (2012) report a similar theoretical construct in their Self-Determination Theory (SDT) which argues experiencing childhood negative events deprives individuals of psychological needs such as nurture therefore they are more likely to pursue extrinsic goals i.e., those that require validation from others. By obeying rules set by the AV individuals aimed to achieve the perfect body. Striving for perfection interferes with engaging in genuine pleasure, e.g. spending time with family, as individuals are focused on maintaining the AV's comfort. This prevents new skills development and increases reliance on the AV (Ryan et al., 2006)

Cortes-Garcial and colleagues (2019) suggested that perfectionism and emotional dysregulation are two mediating factors in the association between insecure attachment and AN. The current study suggests that the AV embodies the perfectionistic coping strategy adopted by individuals, i.e., where the individual's worth is contingent on the achievement of rigid behavioural standards. As such, the AV may be one pathway through which perfectionism influences the AN.

Limitations and future research

This study explored the views of individuals with AN on whether they perceived an interaction between the AV, negative childhood events, and emotions by asking them to retrospectively reflect on their experiences. Previous research has found that there may be associations between

childhood trauma and AN (Molendijk et al., 2017). Exposure to this literature may have biased some of the reflections on life events made by participants. This may be further exacerbated by selection bias, where those participants who had subjectively experienced trauma may have been more likely to participate in this study. More traditional grounded theory has been criticised for assuming that researchers approach projects as a *tabula rasa* (Charmaz, 2014). Whilst these concepts were a guiding theory across the project, various mechanisms were employed to ensure that an a priori framework was not placed on the data.

All participants were recruited from social media; therefore, lifetime history of AN was not confirmed by professional diagnosis. By considering interview and EDE-Q data, participants were evaluated as to whether they had met the DSM-V criteria for AN in their lifetime. There was no cause to dispute the validity of participants' narratives, given the consistency of their stories and corroboration with research supervisors. Future research may want to recruit from NHS services to confirm the generalisability of findings to clinical settings.

Clinical Implications

This study provides an account of the link between adverse life experiences, the AV, and AN. It corroborates existing theory and empirical findings in the field and provides additional insights: the AV appears to mirror the relational dynamics of early adverse experiences, such as abuse and bullying. The implications of this are that trauma-focused and emotion-focused interventions may be important when working with the AV. Clinicians should enquire about early traumatic events when working with individuals with AN, and more consideration should be given to adaptation of therapeutic approaches to include addressing relational trauma. This might involve therapeutic approaches that are relatively novel to this population such as grounding techniques

for managing symptoms of trauma and experiential interventions aimed at supporting disrupted attachments associated with internal voices (e.g. empty-chair confrontation of past abusers) (Arntz, 2012; Pugh, 2019). Equally, existing approaches could be adapted to include working with the AV. One of the most evidenced treatments for AN according to the NICE Guidelines – CBT-E (Fairburn, 2008) – includes components found to be important in this study, including perfectionism and mood intolerance, but could be extended to include insights with relation to the AV and the role of adverse experiences. The parallel found in the present study between specific relational dynamics and the AV implies that developing individualised formulations might be helpful for individuals to contextualise the AV within past and present relationships. Furthermore, addressing how individuals relate to the AV may be useful for interventions such as encouraging the development of new functional ways of relating.

Conclusion

As expressed by the theoretical model, the perceived association between AV, emotions and childhood trauma is complex. The current study proposes a theory grounded in interview data in which the AV provides a sense of safety amid life experiences that generate a sense of unsafety. However, the safety provided by the AV is conditional, and in this way mirrors a perfectionistic coping style. A further insight is that the relational dynamics of the AV appear to reflect the adversity encountered in earlier relational experiences. Findings reflect previous theoretical accounts of attachment, alongside factors associated with experiences of childhood trauma, AN, and the AV. The AV appears to emerge alongside AN symptoms and drives behaviours orientated around eating, shape, and weight in response to critical life events. When individuals violate the conditions of the AV by not following its strict rules, distressing emotions from childhood are reactivated. This paper has discussed the implications of these findings for

clinicians working with individuals with AN, and for researching treatments novel to this area or adapting existing treatments to incorporate guidance for working with the AV in a way that considers the role of relational adversity.

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Appendix A. Journal guidelines: International Journal of Eating Disorders

Please note: For the purposes of thesis submission, this paper has been prepared to the Doctorate in Clinical Psychology guidelines of 8000 words to ensure everything necessary could be demonstrated. This word limit does not include tables, figures, references or appendices. References have been prepared to be in line with the most up to date guidelines, Publication Manual of the American Psychological Association (7th Ed.).



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2. AIMS AND SCOPE

The *International Journal of Eating Disorders*—A leading peer-reviewed journal in the fields of psychology, psychiatry, public health, and nutrition & dietetics.

Mission: With a mission to advance the scientific knowledge needed for understanding, treating, and preventing eating disorders, the *International Journal of Eating Disorders* publishes rigorously evaluated, high-quality contributions to an international readership of health professionals, clinicians, and scientists. The journal also draws the interest of patient groups and advocates focused on eating disorders, and many of the articles draw attention from mainstream media outlets.

Scope: Articles featured in the journal describe state-of-the-art scientific research on theory, methodology, etiology, clinical practice, and policy related to eating disorders, as well as contributions that facilitate scholarly critique and discussion of science and practice in the field. Theoretical and empirical work on obesity or healthy eating falls within the journal's scope

inasmuch as it facilitates the advancement of efforts to describe and understand, prevent, or treat eating disorders. The *International Journal of Eating Disorders* welcomes submissions from all regions of the world and representing all levels of inquiry (including basic science, clinical trials, implementation research, and dissemination studies), and across a full range of scientific methods, disciplines, and approaches.

A complete [overview](#) of the journal is given elsewhere on the journal's homepage.

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3. MANUSCRIPT CATEGORIES AND REQUIREMENTS

The *International Journal of Eating Disorders* publishes the following contribution types:

1. [Original Articles](#)
2. [Brief Reports](#)
3. [Intervention Studies](#)
4. [Reviews](#)
5. [Spotlight](#)
6. [Commentaries](#)
7. [Registered Reports](#)
8. [Forum](#)
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When uploading their manuscript, authors will be asked to complete a checklist indicating that they have followed the Author Guidelines pertaining to the appropriate article type. For all manuscripts reporting statistical analyses, authors are advised to use the [Statistical Reporting Checklist](#). For more detailed background information on statistical analyses and their rationale, authors are referred to the [IJED Statistical Reporting Guidelines](#). Manuscript with incomplete reporting will be referred back to the author without review. All word limits relate to the body of the text (i.e., not including abstract, references, tables and figures) and represent maximum lengths. Authors are encouraged to keep their manuscript as short as possible while communicating clearly.

1) Original Articles

These contributions report substantive research that is novel, definitive, or complex enough to require a longer communication. Only a subset of research papers is expected to warrant full-length format.

- Word Limit: 4,500 (excluding abstract, references, tables or figures)
- Structured Abstract: 250 words.
- References: ≤60 are recommended; more are permissible, for cause.
- Figures/Tables: a maximum of 8 essential tables/figures, overall.

When preparing their manuscript, authors should follow the IMRaD guidelines (*Introduction, Methods, Results, and Discussion*), which are recommended by the International Committee of Medical Journal Editors (ICMJE) ([J. Pharmacol. Pharmacother. 2010, 1, 42–58](#)).

2) Brief Reports

This contribution type is intended for manuscripts describing studies with straightforward research designs, pilot or “proof of concept” studies, and replications.

- Word Limit: 2,000 (excluding abstract, references, tables or figures).
- Structured Abstract: 200 words.
- References: ≤20 are recommended; more are permissible, for cause.
- Figures/Tables: a maximum of 2 essential tables/figures, overall.

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3)

Intervention

Studies

Unless noted otherwise, all interventions studies require that authors have preregistered their study in an online repository before the first participant has been enrolled. The preregistration number should be entered in the manuscript submission checklist and also be reported in the Methods section.

Examples of repositories include <https://cos.io/prereg/>, <https://www.clinicaltrials.gov/>, etc.

Intervention studies will be accepted under one of two broad categories, reflecting the processes outlined in the literature for research into clinical interventions. They can include prevention, early intervention and treatment studies.

When submitting an intervention study manuscript, authors first should determine whether the study warrants a full-length report (**Original Articles** format) or whether it best fits the **Brief Reports** format.

Upon selecting the manuscript format, authors will then be able to select whether the manuscript describes a) an innovation or implementation study; b) a comparative treatment or prevention trial; or c) a non-intervention study (i.e. all other studies).

In all cases, ethical considerations should be addressed, including the obtaining of ethical permission where required. Statistical analysis and data presentation should be appropriate and follow the guidelines for statistical reporting provided for IJED contributors (including treatment of missing data). Any presentation of post-hoc findings needs to be clearly justified and contextualized. The inclusion of qualitative feedback on the experience of patients and clients is encouraged.

Innovation and Implementation

Such papers demonstrate the potential of new innovations in treatment for eating disorders, and the effectiveness of strongly evidenced therapies in routine clinical settings. Those papers are expected to meet the standards included for Template Intervention Description and Replication Checklist (TIDieR): <http://www.equator-network.org/wp-content/uploads/2014/03/TIDieR-Checklist-PDF.pdf>

Single case experimental designs, where one or more cases are presented using visual or statistical methods to demonstrate the clinical impact of an intervention, based on at least an A-B design and session-by-session data. Such case reports should have heuristic value, so need to be innovative and leading to stronger research. Such cases require a clear statement from the authors that the patient (or the patient’s legal guardian) has given permission to publish the material anonymously. Case reports without such clinical outcome data and structured

presentation of findings will not normally be considered. Preregistration encouraged but not required.

Innovative uncontrolled trials, using a case series to demonstrate the initial implementation of interventions, under uncontrolled conditions (e.g., a series of patients treated with a new therapy; a comparison of therapies for similar but not identical patients). Such case series should be placed in context (e.g., were the patients recruited as a true series, or were they selected from the available pool?) and supported with a CONSORT diagram or the appropriate procedural detail. Preregistration encouraged but not required.

Implementation studies, effectiveness studies, demonstrating the rolling out of evidence from controlled trials to routine practice, other populations, etc. Differences relative to the original intervention should be outlined.

For both study types, reporting of intent-to-treat results is preferred unless a strong rationale for a different approach is provided. Completer results can also be reported if this is considered to add important information. Results should include the mean and SD of pre- and post-scores, within-group effect sizes with 95% confidence intervals, and pre- and post-score correlations (allowing within-subject effect sizes to be verified). Appropriate follow-up data are desirable.

Comparative Trials

This category requires evidence that an intervention has been compared to either a control or active condition and has been conducted and reported appropriately in conformity to the appropriate CONSORT checklist (<http://www.consort-statement.org/>), particularly randomization of participants. CONSORT diagrams will usually be required, and such trials should be pre-registered to ensure that the core aims and hypotheses are openly addressed. Replication studies are welcomed but are more likely to be suited to Brief Reports.

Proof of concept and pilot studies are not required before an RCT can be published. However, each of these types of study is accepted by IJED, as they form key steps in the development of ideas, grant proposals, etc. Proof of concept and pilot studies can be combined into one submission, but both functions should be addressed adequately in that paper in such a case. The study description should conform to the CONSORT 2010 checklist of information to include when reporting a proof of concept or pilot study trial. Authors are advised to review the CONSORT extensions for additional information <http://www.consort-statement.org/extensions>.

Proof of concept studies answer the question: Does the RCT pose questions well worth asking? Data can be presented on effectiveness but should not be used to estimate effect sizes for the RCT as such estimates can be misleading. Preregistration encouraged but not required.

Pilot studies assess issues related to proposed sampling and measurement, design and analysis and answer the question: Is the RCT well-designed enough to address the hypotheses? Such studies should report feasibility as the primary outcome rather than clinical outcomes. This requires a focus on information that addresses hypotheses about recruitment, acceptability, attrition, cost, accessibility, e.g., Can you recruit as many participants in the time allowed as your study proposes? Will the participants accept randomization? Will they comply with treatment protocols? Is the protocol for delivery of treatment well and clearly enough defined to promote fidelity? Will the participants accept the testing procedures? Can the testing

procedures be completed in the time allowed? If these data are included in any subsequent study (e.g., an RCT), that fact should be explained transparently.

Randomized controlled trials, where there needs to be an adequate sample size (demonstrated through the presentation of a power analysis), clear aims and hypotheses. Any blinding (e.g., of researchers) and problems of de-blinding should be clearly detailed. An appropriate follow-up period is required. Definitions of terms such as ‘attrition’, ‘remission’ and ‘recovery’ should be fully replicable, and intervention protocols should be readily available to the reader. The study description should conform to the CONSORT 2010 checklist of information to include when reporting a randomized trial.

4) Reviews and Meta-Analyses

These articles critically review the status of a given research area and propose new directions for research and/or practice. Both systematic and meta-analytic review papers are welcomed if they review a literature that is advanced and/or developed to the point of warranting a review and synthesis of existing studies. Reviews of topics with a limited number of studies are unlikely to be deemed as substantive enough for a Review paper. The journal does not accept papers that merely describe or compile a list of previous studies without a critical synthesis of the literature that moves the field the forward.

- Word Limit: 7,500 (excluding abstract, references, tables or figures).
- Structured Abstract: 250 words.
- References: ≤100 are recommended; more are permissible, for cause.
- Figures/Tables: No maximum, but should be appropriate to the material covered.

All Review articles must follow the [PRISMA Guidelines](#), summarized in a 2021 *J. Clin. Epidemiol.* article by Page et al. entitled “[The PRISMA 2020 statement: an updated guideline for reporting systematic reviews](#)”, freely available for download. Translations of PRISMA documents can be found at [this link](#).

In addition to the required PRISMA review paper components, all review articles must also include a full description of the age, gender, race, ethnicity, and socioeconomic status of participants in the reviewed studies. This information will most often take the form of separate entries in tables describing the studies included in the review. If a paper included in the review does not report these demographic variables, then “NR” (Not Reported) should be indicated in the appropriate table cells. Review papers must also explicitly discuss (in the text) the diversity of the samples and the ways in which this diversity (or lack thereof) may impact the generalizability and representativeness of the study results and conclusions.

Authors who choose this contribution type must include the [2020 PRISMA Flow Diagram](#) and complete the Review Checklist upon submission of the manuscript, an example of which can be [found here](#). This example is for informational purposes only. During the submission process, authors will be prompted to complete the Review Checklist directly in ScholarOne. The rationale for any unchecked items on the Review Checklist must be explicitly described in the accompanying Cover Letter.

5) Spotlight

This is a contribution type where authors propose an idea that may not yet have adequate empirical support or be ready for full empirical testing, but holds great promise for advancing research of eating disorders. Authors are encouraged to write a piece that is bold, forward looking, and suggestive of new and exciting avenues for research and/or practice in the field. The manuscript should identify the specific knowledge gap and why filling the gap will advance research and practice in the field; it should delineate several concrete steps for addressing the gap.

- Word Limit: 2,000 (excluding abstract, references, tables or figures).
- Unstructured Abstract: 200 words.
- References: ≤20 are recommended; more are permissible, for cause.
- Figures/Tables: a maximum of 2 essential tables/figures, overall.

6) Commentaries

Commentaries are solicited by the Editors when multiple perspectives on or critical appraisal of an article would assist in placing that article in context. Unsolicited commentaries are not considered for publication.

- Word Limit: 2,000 (excluding abstract, references, tables or figures).
- Unstructured Abstract: 200 words.
- References: ≤5 are recommended, more are permissible for cause.
- Figures/Tables: none.

7) Registered Reports

This manuscript type is intended for publishing a detailed research protocol of original empirical studies prior to commencing data collection or of studies involving secondary data analyses of large public access data bases, prior to commencing analyses. The journal will not consider Registered Reports for analyses that may reasonably be expected to be conducted as part of a complex research study (e.g., moderator/mediator analyses in a treatment trial). The journal does not support Registered Reports for meta-analytic or systematic reviews.

Registered Reports manuscripts should use section headings under which authors provide the following information. Introduction: Study aim(s) and background literature, and statement of hypotheses. The introduction would provide a succinct and compelling rationale for the study. Methods: Experimental design and procedures, analysis plans, and statistical power analysis. The methods section should be written with the goal of facilitating study replication and describe in detail, where possible or applicable, recruitment target numbers, criteria and procedures; instruments or other materials; experimental stimuli and procedures; intervention protocols; analysis scripts or code; etc. Preliminary Data (if applicable): any pilot data. Conclusion: a concise statement regarding the expected knowledge to be gained.

Authors are advised of the following additional requirements:

1. By the time of submission of the registered report manuscript, authors will have completed a preregistration of their study in an online repository (e.g., cos.io/prereg/); authors report the preregistration number as part of the submission process (on the

author checklist) and in the methods section. If the preregistration is embargoed at the time of submission, authors should attach for the editor a confidential file containing the preregistration information and date when the study was preregistered.

2. If the preregistration is embargoed, the embargo must be lifted at the time of acceptance of the Registered Report.
3. Having received extramural funding is not a prerequisite to potential acceptance of the registered report. However, authors are required to indicate in their submission letter whether the research plan has been reviewed and approved for funding by an extramural funding organization.
4. While institutional review board (IRB) approval is not required at the time of submission, publication will be conditional on receipt of IRB approval for the research plan as described in the accepted manuscript.

Registered Reports are peer reviewed using the same review criteria and procedures as apply to the introduction and methods sections of empirical studies involving confirmatory hypothesis testing. Reviewers would evaluate whether the rationale for the study aims is well justified and whether the design and methods are appropriate for testing the hypotheses.

Registered Reports manuscripts meeting the rigorous and transparent requirements for conducting the research proposed will be accepted for publication.

In addition, authors of a published Registered Report manuscript will be offered an in-principle acceptance of a subsequently submitted (Stage 2) manuscript. Specifically, following data collection, authors may submit a Stage 2 manuscript that includes the introduction and methods from the original submission plus their obtained results and discussion. All planned analyses and resulting findings should be reported. Authors choosing to include in their Stage 2 manuscript unplanned analyses will need to clearly distinguish them from planned analyses. Authors may select the Original Report format or, if indicated, the Brief Report format. In either case, authors should update their manuscript considering the literature that has become available since publication of the Registered Report.

The Stage 2 manuscript will undergo full review. Referees will consider whether the authors properly executed the study and adhered precisely to the registered research procedures and analysis plans. Referees will review any unregistered post hoc analyses added by the authors to confirm they are justified, methodologically sound and informative. Finally, the referees will evaluate the scholarly quality of the discussion.

Submission of the Stage 2 manuscript to IJED is optional; authors are free, therefore, to publish their completed study in any journal of their choosing. Authors who opt to submit their stage 2 manuscript to IJED should select the Original Studies or Brief Report format. Stage 2 manuscripts published in IJED will be eligible for the “Preregistered” Open Science badge: <https://cos.io/our-services/open-science-badges/>

Should the author choose to publish their Registered Research Report open access and should the article be accepted for publication, a 50% discount is applied on the Article Publication Fee at both stages of publication.

Throughout the process, the journal editor or associate editors retain the right to reject manuscripts where the quality of academic writing is deemed not to be of a publishable standard.

Registered Reports Stage 1 Details:

Word Limit: 3,000 (excluding abstract, references, tables or figures); much of the word count should be devoted to a detailed description of study methods and procedures.

- Title page: Include preregistration information.
- Unstructured abstract: 200 words.
- References: ≤30 recommended; more are permissible, for cause.
- Figures/Tables: a maximum of 4 essential tables/figures, overall. Authors are encouraged to summarize key methodological details in table or figure format.
- Supplemental information. For lengthy information that cannot be accommodated within the word limit of the Registered Report format, authors are encouraged to utilize publicly accessible repositories and report the relevant hyperlinks in their methods section.

Registered Reports Stage 2 Details

Authors should use instructions for Original Studies or Brief Report manuscripts, respectively.

8) Forum

A Forum manuscript introduces an important knowledge or practice gap in regards to preventive or clinical interventions, policies, or research methods in the field and proposes specific solutions to filling the gap. A Forum manuscript is grounded in expert review of the literature and presents novel ideas regarding prevention or clinical care (Clinical Forum), public health or health care policy (Policy Forum), or research methods (Research Forum). Unlike Systematic Reviews or Meta-Analytical Reviews (“Review manuscripts”), the literature reviewed in a Forum manuscript may involve a smaller number of studies (i.e., the field may not yet have matured to the point where a systematic review is indicated); however, as in Review manuscripts, authors need to describe and critically discuss the relevant details of the prior literature. Unlike Idea manuscripts, Forum manuscripts need not necessarily pose a novel problem; the gap or problem being addressed may have plagued the field for some time. What is expected to be novel is (are) the solution(s) being proposed in the Forum manuscript. As with all journal content, authors should consider the relevance and implications of their work for a global audience.

When submitting the Forum, authors will be prompted to select whether their Forum manuscript primarily focuses on treatment or prevention (Clinical Forum), public health or health care policy (Policy Forum), or research methods (Research Forum).

Main text, excluding abstract, references, tables or figures: 5000 words

Structured abstract: 250 words

Tables, figures: up to 5

References: no restriction

9) Perspective

A Perspective manuscript comments on an Original Research, Brief Report, or Meta-Analysis Review manuscript published in the IJED. A Perspective expands upon the published research by offering additional context, interpretation, or suggestions regarding the potential application of the research for advancing science and practice in eating disorders. Perspective manuscripts may not merely summarize the published research nor are they intended to primarily discuss the author's own work. Because the Original Research, Brief Report, or Meta-Analysis paper has already been peer reviewed, the Perspective manuscript should be viewed as an opportunity to develop the ideas and potential of the work reported, rather than a critique of the paper. Indeed, only submissions that add a new dimension to the published research will be considered suitable for publication.

Perspective manuscripts should provide a personal viewpoint and, as such, authorship should be limited to one or two authors. We recognize various forms of expertise, including research expertise, clinical expertise, expertise by lived experience (e.g., individuals impacted by an eating disorder), policy expertise, or expertise in a scholarly field distinct from eating and weight disorders. When submitting a Perspective manuscript, authors are requested to specify their primary expertise as pertaining to the Perspective submission.

To be considered for publication, the Perspective should focus on an Original Research, Brief Report, or Meta-Analysis Review manuscript that has been published in early view no more than three months before submission of the Perspective manuscript. Submissions that do not meet these requirements are rejected without review.

Main text: up to 750 words.

No abstract, up to 10 references.

[Return to Guideline Sections](#)

4. PREPARING THE SUBMISSION

Parts of the Manuscript

The submission should be uploaded in separate files: 1) **manuscript file**; 2) tables; 3) **figures**; 4) if applicable, **supporting information file(s)**.

1. Manuscript File

The text file should contain the manuscript text, references, and the figure legends. The text should be presented in the following order:

1. [Title page](#)

1. Title. The title should be short and informative, containing major keywords related to the content. The title should not contain abbreviations (see [Wiley's best practice SEO tips](#)) and should not be phrased in form of a question.
2. A short running title of less than 40 characters.
3. The full names of all [authors](#)
4. The authors' institutional affiliations where the work was conducted, with a footnote for an author's present address if different to where the work was carried out
5. If applicable (required for clinical trials): Trial registration number.
6. Word counts (abstract and main text, excl. tables and references)
2. Data Availability Statement
3. [Acknowledgements and Conflicts of Interest](#)
 1. If applicable: funding source
 2. If applicable: other acknowledgements
 3. Conflict of interest statement (if none, state "The authors have no conflict to declare")
4. [Abstract](#) and [Keywords](#)
5. [Main text](#)
6. [References](#)
7. [Figure legends](#)

Title Page

Authorship

For details on eligibility for author listing, please refer to the journal's [Authorship policy](#) outlined in Section 5 of these Author Guidelines.

Acknowledgments

Contributions from individuals who do not meet the criteria for authorship should be listed, with permission from the contributor, in an Acknowledgments section. Financial and material support should also be mentioned. Thanks to anonymous reviewers are not appropriate.

Conflict of Interest Statement

Authors will be asked to provide a conflict of interest statement during the submission process. See the journal's policy on [Conflict of Interest](#) outlined in Section 5 of these Author Guidelines. Authors should ensure they liaise with all co-authors to confirm agreement with the final statement.

Abstract

The abstract should be typed as a single paragraph. The word maximum and abstract format vary by contribution type (see above).

Structured abstracts should be organized as follows: **Objective:** briefly indicate the primary purpose of the article, or major question addressed in the study. **Method:** indicate the sources of data, give brief overview of methodology, or, if review article, how the literature was searched and articles selected for discussion. For research based articles, this section should briefly note study design, how participants were selected, and major study measures. **Results:**

summarize the key findings. **Discussion:** indicate main clinical, theoretical, or research applications/implications.

Keywords

Please provide about 10 keywords. Keywords should be taken from those recommended by the US National Library of Medicine's Medical Subject Headings (MeSH) browser list at www.nlm.nih.gov/mesh.

Main Text

- Manuscripts reporting original research should follow the **IMRaD guidelines** (*I*ntroduction, (*M*ethods, *R*esults, *a*nd *D*iscussion), which are recommended by the International Committee of Medical Journal Editors (ICMJE) ([J. Pharmacol. Pharmacother. 2010, 1, 42–58](#)).
- The Methods section should include a statement about sample selection, response rate, and other factors that would impact selection or response bias and, in turn, representativeness of the sample.
- Articles reporting data taken from or deposited elsewhere should refer to the journal policy on [Data Storage and Documentation](#) in Section 5 (below).
- If the study involves qualitative data, authors need to include a statement about sample size in relation to theme saturation. It is also important that the sampling strategy is driven by theory rather than convenience, the data analysis procedures are justified, and the advantage of a qualitative (vs. a simple quantitative) approach are well-described.
- For additional detail regarding statistical requirements for the manuscript see **IJED Statistical Reporting Guidelines** and please use the [Statistical Reporting Guidelines Checklist](#) as you prepare your manuscript.
- Authors should refrain from using terms that are stigmatizing or terms that are ambiguous. For further explanation and examples, see the 2016 IJED article by Weissman et al. entitled "*Speaking of that: Terms to avoid or reconsider in the eating disorders field*" (DOI: [10.1002/eat.22528](https://doi.org/10.1002/eat.22528).)
- To facilitate evaluation by the Editors and Reviewers, each manuscript page should be numbered; the text should be double-spaced; and line numbers should be applied (restarting from 1 on each page). Instructions on how to implement this feature in Microsoft Word are given [here](#).
- The journal uses US spelling. Authors may submit using any form of English as the spelling of accepted papers is converted to US English during the production process.
- Footnotes to the text are not allowed and any such material should be incorporated into the text as parenthetical matter.
- It is the primary responsibility of the authors to proofread thoroughly and ensure correct spelling and punctuation, completeness and accuracy of references, clarity of expression, thoughtful construction of sentences, and legible appearance prior to the manuscript's submission.
- Authors for whom English is not their first language are encouraged to seek assistance from a native or fluent English speaker to proof read the manuscript prior to

submission. Wiley offers a paid service that provides expert help in English language editing—further details are given [below](#).

- Articles reporting data taken from or deposited elsewhere should refer to the journal policy on [Data Storage and Documentation](#) in Section 5 (below).

References

References in all manuscripts should follow the style of the American Psychological Association (6th edition), except in regards to spelling. The APA website includes [a range of resources for authors learning to write in APA style](#), including [An overview of the Publication Manual of the American Psychological Association, Sixth Edition](#); includes [free tutorials on APA Style basics](#) and an [APA Style Blog](#). Please note APA referencing style requires that a Digital Object Identifier (DOI) be provided for all references where available.

Tables

Each table must be numbered in order of appearance in the text with Arabic numerals and be cited at an appropriate point in the text. Tables should be self-contained and complement, not duplicate, information contained in the text. They should be editable (i.e., created in Microsoft Word or similar), not pasted as images. Legends should be concise but comprehensive—the table, legend, and footnotes must be understandable without reference to the text. All abbreviations must be defined in footnotes. Footnote symbols: †, ‡, §, ¶, should be used (in that order) and *, **, *** should be reserved for P-values. Statistical measures such as standard deviation (SD) or standard error of the mean (SEM) should be identified in the headings.

Figure Legends/Captions

Each figure caption should have a brief title that describes the entire figure without citing specific panels, followed by a description of each panel. Captions should be concise but comprehensive—the figure and its caption must be understandable without reference to the text. Be sure to explain abbreviations in figures even if they have already been explained in-text. Axes for figures must be labeled with appropriate units of measurement and description. Include definitions of any symbols used and units of measurement.

2. Figures

Although authors are encouraged to send the highest quality figures possible, for peer-review purposes, a wide variety of formats, sizes, and resolutions are accepted. [Click here](#) for the basic figure requirements for figures submitted with manuscripts for initial peer review, as well as the more detailed post-acceptance figure requirements.

Helvetica typeface is preferred for lettering within figures. All letters, numbers and symbols must be at least 2 mm in height. Courier typeface should be used for sequence figures. Figures should be numbered consecutively with Arabic numerals, and they should be numbered in the order in which they appear in the text.

Figures should be submitted as electronic images to fit either one (55 mm, 2 3/16", 13 picas), two (115 mm, 4 1/2", 27 picas), or three (175 mm, 6 7/8", 41 picas) columns. The length of an illustration cannot exceed 227 mm (9"). Journal quality reproduction requires grey scale and color files at resolutions of 300 dpi. Bitmapped line art should be submitted at resolutions of 600–1200 dpi.

Figures submitted in color will be reproduced in color online and in print free of charge. Authors should note, however, that it is preferable that line figures (e.g., graphs) are supplied in black and white so that they are legible if printed by a reader in black and white.

Graphical Table of Contents

International Journal of Eating Disorders incorporates graphics and a small piece of text from journal articles into the online table of contents (which are distributed to readers who have signed up to Table of Contents (ToC) alerts). The extra graphic and text, in addition to being eye-catching, gives the reader a much more immediate impression of what each article will cover.

If you would like a graphic to accompany your article in the Table of Contents, please specify one of your figures. You will be given the option to specify a figure during the submission process at the file upload stage.

3. Supporting Information Files(s)

Supporting Information is information that is supplementary and not essential to the article, but provides greater depth and background. Examples of such information include more detailed descriptions of therapeutic protocols, results related to exploratory or post-hoc analyses, and elements otherwise not suitable for inclusion in the main article, such as video clips, large sections of tabular data, program code, or large graphical files. It is *not* appropriate to include, in the Supporting Information, text that would normally go into a discussion section; all discussion-related material should be presented in the main article.

Because the Supporting Information is separate from the paper and supplementary in nature, the main article should be able to be read as a stand-alone document by readers. Reference to the Supporting Information should be made in the text of the main article to provide context for the reader and highlight where and how the supplemental material contributes to the article.

Should authors wish to provide supplementary file(s) along with their article, these materials *must* be included upon submission to the journal. If such materials are added to the submission as a result of peer review, i.e., during a revision, then the authors should bring this to the attention of the editor in their response letter. If accepted for publication, Supporting Information is hosted online together with the article and appears without editing or typesetting.

[Wiley's FAQs on Supporting Information](#) are available on the Wiley Author Services site: **www.wileyauthors.com**.

Note: Authors are encouraged to utilize publicly available data repository for data, scripts, or other artefacts used to generate the analyses presented in the paper; in such cases, authors should include a reference to the location of the material within their paper.

General Style Points

The following points provide general advice on formatting and style.

- **Terminology:** The journal rejects terminology that refers to individuals by their condition. Terms such as "anorexics," "bulimics," "obese," or "diabetic," etc., as personal pronouns, referring to groups of individuals by their common diagnosis or condition, should be avoided. Terms like "individuals with anorexia nervosa," "people with bulimia

nervosa," "participants with eating disorders," "patients with diabetes," or "participants with obesity," etc., should be used instead. Note, "participants" should be used in place of "subjects".

- **Abbreviations:** In general, terms should not be abbreviated unless they are used repeatedly and the abbreviation is helpful to the reader. Initially, use the word in full, followed by the abbreviation in parentheses. Thereafter use the abbreviation only.
- **Units of measurement:** Measurements should be given in SI or SI-derived units. Visit the Bureau International des Poids et Mesures (BIPM) website at www.bipm.fr for more information about SI units.
- **Numbers** under 10 should be spelt out, except for: measurements with a unit (8 mmol/L); age (6 weeks old), or lists with other numbers (11 dogs, 9 cats, 4 gerbils).
- **The word "data"** is plural; therefore, text should follow accordingly (for example, "The data show...the data are ... the data were...").
- **Sex/Gender & Age:** When referring to sex/gender, "males" and "females" should be used only in cases where the study samples include both children (below age 18) and adults and only if word limit precludes using terms such as "male participants/female participants," "female patients/male patients"; when the participants comprise adults only, the terms "men" and "women" should be used. In articles that refer to children, "boys" and "girls" should be used.
- **Trade Names:** Chemical substances should be referred to by the generic name only. Trade names should not be used. Drugs should be referred to by their generic names. If proprietary drugs have been used in the study, refer to these by their generic name, mentioning the proprietary name and the name and location of the manufacturer in parentheses.

Wiley Author Resources

Manuscript Preparation Tips: Wiley has a range of resources for authors preparing manuscripts for submission available [here](#). In particular, authors may benefit from referring to Wiley's best practice tips on [Writing for Search Engine Optimization](#).

Article Preparation Support

[Wiley Editing Services](#) offers expert help with English Language Editing, as well as translation, manuscript formatting, figure illustration, figure formatting, and graphical abstract design – so you can submit your manuscript with confidence.

Also, check out our resources for [Preparing Your Article](#) for general guidance about writing and preparing your manuscript.

[Return to Guideline Sections](#)

5. EDITORIAL POLICIES AND ETHICAL CONSIDERATIONS

Editorial Review and Acceptance

Rigorous evaluation of submitted material by expert reviewers is essential to ensuring that the journal achieves its mission. To facilitate timely feedback to authors and to avoid burdening expert reviewers unduly, the journal utilizes a two-tiered review process for all contributions (whether invited or unsolicited). The first tier involves an initial editorial preview to be

implemented within days of receipt of a submission. If the manuscript is considered to have potential for publication in the journal, the second tier involves peer review, typically by two to three experts. The Editor-in-Chief, at times, may delegate final decision making authority to one of the Associate Editors.

Editorial Pre-Screen. The Editor-in-Chief will pre-screen all submissions to determine the suitability based on fit with the journal's scope and scholarly merit. Manuscripts deemed to fall outside of the journal's scope or to be of limited merit (e.g., because of substantial methodological flaws or insufficiently novel contribution to the field) will not be sent out for peer review. Pre-screening of articles does not involve detailed evaluation. Authors receiving a negative decision at this stage may appeal by sending a concise rationale to the Editor-in-Chief.

Appeal of Rejection Decision. Requests for **appeal** will be considered only where the author makes a case that one or more reviewer, or the editor, has clearly made a substantive mistake. Submissions not sent out for external review are subject to the same grounds for appeal as submissions that have undergone full peer review. Please address appeal requests in writing to the Editor-in-Chief.

Peer Review. Submissions that, based on editorial pre-screening, are considered of potential suitability for the journal are forwarded to experts in the field—ad hoc reviewers or members of the journal's Editorial Board—for detailed evaluation and feedback. Expert reviewers are asked to evaluate the merit of a manuscript based on the quality of the methods applied, presentation, and overall contribution to the field. Reviewers are instructed to offer a thorough, constructive, and timely evaluation of all aspects of the submission and to enumerate strengths and weaknesses. Authors are invited to recommend expert reviewers.

Wiley's policy on confidentiality of the review process is available here: www.wileypeerreview.com/reviewpolicy.

Revision Submission. Authors are asked to upload two versions of the revised manuscript. One version should include all tracked changes and be labelled "Manuscript with revisions" when uploaded. The other version should contain no mark up and be labelled "Manuscript" when uploaded.

Transferable Peer Review. To enable rapid publication of good quality research that is unable to be accepted for publication by the *International Journal of Eating Disorders*, we work together with Wiley's Open Access journals through **Wiley's Manuscript Transfer Program**: [Brain and Behavior](#), [Obesity Science and Practice](#), [Clinical Case Reports](#), and [Molecular Genetics and Genomic Medicine](#). Authors may be offered the option of having their manuscript (inc. any Supporting Information), along with any related peer reviews, automatically transferred for consideration by the Editor of the receiving journal. Authors taking up the offer to transfer will not need to reformat or rewrite their manuscript at that stage, and a publication decision will be made a short time after the transfer has taken place. The Editors of the receiving journals will accept submissions that report well-conducted research that reaches the standard acceptable for publication. These journals are a part of the Wiley Open Access portfolio (www.wileyopenaccess.com), and thus Article Publication Fees apply.

Work Involving Cross-Cultural Studies

If the work involves cross-cultural assessment or assessment in a new language or study population, authors should provide information about local literacy in the language of

assessment, the validity of (or process for validating) a translation of an assessment, and for inclusion of regional samples, a statement about the representativeness of the regional sample (or distinction from) the national sample. If statistical analyses are employed, effect size estimates should be reported in the Results section.

Guidelines for Genetic Studies

Authors of manuscripts describing association studies should note that the *International Journal of Eating Disorders* has adopted Methods guidelines developed and published by the [American Journal of Medical Genetics Part B: Neuropsychiatric Genetics](#). These guidelines recommend minimum sample sizes; in the case of positive findings, an adequately powered independent replication sample; and adjustments for multiple comparisons. As is required for all papers, the guidelines also require that authors report effect size estimates. For a complete description, please refer to the AJMGB Editorial Policy on Association Studies described in their [Author Guidelines](#).

Please note, when referring to genetic material, the names of genes should be spelled out in full the first time they appear in the text, after which an italicized abbreviation can be substituted. Sequence variants should be described in the text and tables using both DNA and designations whenever appropriate. Sequence variant nomenclature must follow the current Human Genome Variation Society (HGVS) guidelines; see varnomen.hgvs.org, where examples of acceptable nomenclature are provided.

Data Sharing and Data Accessibility

Please review Wiley's policy [here](#). The *International Journal of Eating Disorders* expects but does not require data sharing.

All accepted manuscripts are required to publish a data availability statement to confirm the presence or absence of shared data.

The *International Journal of Eating Disorders* recognizes the many benefits of archiving research data. *IJED* expects you to archive all the data from which your published results are derived in a public repository. The repository that you choose should offer you guaranteed preservation (see the registry of research data repositories at <https://www.re3data.org/>) and should help you make it findable, accessible, interoperable, and re-useable, according to [FAIR Data Principles](#).

The *International Journal of Eating Disorders* notes that FAIR data sharing allows for access to shared data under restrictions (e.g., to protect confidential or proprietary information) but notes that the FAIR principles encourage you to share data in ways that are as open as possible (but that can be as closed as necessary).

If you have shared data, this statement will describe how the data can be accessed, and include a persistent identifier (e.g., a DOI for the data, or an accession number) from the repository where you shared the data. If you cannot share the data described in your manuscript, for example for legal or ethical reasons, or do not intend to share the data then you must provide the appropriate data availability statement. Sample statements are available [here](#). If published, all statements will be placed in the heading of your manuscript.

Human Studies and Subjects

For manuscripts reporting studies that involve human participants, a statement identifying the ethics committee that approved the study and confirmation that the study conforms to

recognized standards is required, for example: [Declaration of Helsinki](#); [US Federal Policy for the Protection of Human Subjects](#) ; or [European Medicines Agency Guidelines for Good Clinical Practice](#).

Every effort should be taken to ensure the anonymity of the patient concerned, and any clinicians not involved as authors. If there is any potentially identifiable information, then it is the responsibility of the authors to seek and obtain approval from the local Institutional Review Board (IRB) (or equivalent) for the case to be reported, and a copy of that approval should be made available to the Editor on request.

Images and information from individual participants will only be published where the authors have obtained the individual's free prior informed consent. Authors do not need to provide a copy of the consent form to the publisher; however, in signing the author license to publish, authors are required to confirm that consent has been obtained. Wiley has a [standard patient consent form available](#) for use.

Animal Studies

A statement indicating that the protocol and procedures employed were ethically reviewed and approved, as well as the name of the body giving approval (e.g., in the USA, the Institutional Review Board (IRB) or Institutional Animal Care and Use Committee (IACUC)), must be included in the Methods section of the manuscript. Authors are encouraged to adhere to animal research reporting standards, for example the [ARRIVE reporting guidelines](#) for reporting study design and statistical analysis; experimental procedures; experimental animals and housing and husbandry. Authors should also state whether experiments were performed in accordance with relevant institutional and national guidelines for the care and use of laboratory animals:

- US authors should cite compliance with the US National Research Council's [Guide for the Care and Use of Laboratory Animals](#), the US Public Health Service's [Policy on Humane Care and Use of Laboratory Animals](#), and [Guide for the Care and Use of Laboratory Animals](#).
- UK authors should conform to UK legislation under the [Animals \(Scientific Procedures\) Act 1986 Amendment Regulations \(SI 2012/3039\)](#).
- European authors outside the UK should conform to [Directive 2010/63/EU](#).

Clinical Trial Registration

The journal requires that clinical trials are prospectively registered in a publicly accessible database and clinical trial registration numbers are included in all papers that report their results. The name of the trial register and the clinical trial registration number should appear at the end of the abstract along with the URL for a hyperlink, if possible. A full list of registers can be found via the [WHO International Clinical Trials Registry Platform \(ICTRP\)](#). Contributors should make clear when registration took place relative to the start or end of data gathering. Any discrepancies between the trial protocol and the study itself must be reported and justified in the methods section of the submitted paper. If the trial is not registered, or was registered retrospectively, the reasons for this should be explained.

Research Reporting Guidelines

Accurate and complete reporting enables readers to fully appraise research, replicate it, and use it. Authors are encouraged to adhere to any research reporting standards relevant to their study. A list of the most well-known guidelines is given here:

- [Consolidated Standards of Reporting Trials \(CONSORT\)](#)
- [Standard Protocol Items: Recommendations for Interventional Trials \(SPIRIT\)](#)
- [Preferred Reporting Items for Systematic Reviews and Meta-Analyses \(PRISMA\)](#)
- [PRISMA Protocols \(PRISMA-P\)](#)
- [STrengthening the Reporting of OBservational studies in Epidemiology \(STROBE\)](#)
- [CARE: Guidelines to increase the accuracy, transparency, and usefulness of case reports](#)
- [Consolidated criteria for reporting qualitative research \(COREQ\)](#) by Tong et al. (*Int. J. Qual. Health Care*(**2007**) 19(6): 349–357)
- [STARD 2015: An Updated List of Essential Items for Reporting Diagnostic Accuracy Studies](#)
- [TRIPOD: Transparent Reporting of a multivariable prediction model for Individual Prognosis Or Diagnosis](#)
- [Consolidated Health Economic Evaluation Reporting Standards \(CHEERS\)](#) by Husereau et al. (*BMC Medicine*(**2013**) 11: 80; DOI: 10.1186/1741-7015-11-80)
- [The EQUATOR Network: an author's one-stop-shop for writing and publishing high-impact health research](#)
- [FORCE11: Recommended reporting guidelines for life science resources](#)
- [ARRIVE \(Animal Research: Reporting of In Vivo Experiments\) guidelines](#)
- [Guidance for the Description of Animal Research in Scientific Publications](#) from the US National Research Council's Institute for Laboratory Animal Research
- [The Gold Standard Publication Checklist](#) from Hooijmans et al. (*ATLA* (**2010**) 38: 167–182)

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Upon its first use in the title, abstract, and text, the common name of a species should be followed by the scientific name (genus, species, and authority) in parentheses. For well-known species, however, scientific names may be omitted from article titles. If no common name exists in English, only the scientific name should be used.

Sequence Data

Nucleotide sequence data can be submitted in electronic form to any of the three major collaborative databases: DDBJ, EMBL, or GenBank. It is only necessary to submit to one database as data are exchanged between DDBJ, EMBL, and GenBank on a daily basis. The suggested wording for referring to accession-number information is: 'These sequence data have been submitted to the DDBJ/EMBL/GenBank databases under accession number U12345'. Addresses are as follows:

- DNA Data Bank of Japan (DDBJ): www.ddbj.nig.ac.jp
- EMBL Nucleotide Archive: ebi.ac.uk/ena
- GenBank: www.ncbi.nlm.nih.gov/genbank

Proteins sequence data should be submitted to either of the following repositories.

- RCSB Protein Data Bank (PDB): www.rcsb.org/pdb.
- Protein Information Resource (PIR): pir.georgetown.edu
- SWISS-PROT: expasy.ch/sprot/sprot-top

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Appendix B. PROSPERO registration confirmation email

PROSPERO Registration message [243891]



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Tue 01/06/2021 16:05
To: Georgette Morrison



External email to Cardiff University - Take care when replying/opening attachments or links.
Nid eboest mewnl o Brifysgol Caerdydd yw hwn - Cymwch ofal wrth ateb/agor atodiadau neu ddolenni.

Dear Georgette,

Thank you for submitting details of your systematic review
"Association between adverse childhood experiences and eating disorders: a review of reviews" to the PROSPERO register. We are pleased to confirm that the record will be published on our website within the next hour.

Your registration number is: CRD42021243891

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Best wishes for the successful completion of your review.

Yours sincerely,

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Appendix C. Example of AMSTAR assessments

Caslini et al. (2016)

AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both

<p>1. Did the research questions and inclusion criteria for the review include the components of PICO?</p>		
<p>For Yes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Population <input type="checkbox"/> Intervention <input type="checkbox"/> Comparator group <input type="checkbox"/> Outcome 	<p>Optional (recommended)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Timeframe for follow-up 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>2. Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?</p>		
<p>For Partial Yes: The authors state that they had a written protocol or guide that included ALL the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> review question(s) <input type="checkbox"/> a search strategy <input type="checkbox"/> inclusion/exclusion criteria <input type="checkbox"/> a risk of bias assessment 	<p>For Yes: As for partial yes, plus the protocol should be registered and should also have specified:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> a meta-analysis/synthesis plan, if appropriate, <i>and</i> <input checked="" type="checkbox"/> a plan for investigating causes of heterogeneity <input type="checkbox"/> justification for any deviations from the protocol 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial Yes <input type="checkbox"/> No
<p>3. Did the review authors explain their selection of the study designs for inclusion in the review?</p>		
<p>For Yes, the review should satisfy ONE of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Explanation for including only RCTs <input type="checkbox"/> OR Explanation for including only NRSI <input type="checkbox"/> OR Explanation for including both RCTs and NRSI 		
<p>4. Did the review authors use a comprehensive literature search strategy?</p>		
<p>For Partial Yes (all the following):</p> <ul style="list-style-type: none"> <input type="checkbox"/> searched at least 2 databases (relevant to research question) <input type="checkbox"/> provided key word and/or search strategy <input type="checkbox"/> justified publication restrictions (e.g. language) 	<p>For Yes, should also have (all the following):</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> searched the reference lists / bibliographies of included studies <input type="checkbox"/> searched trial/study registries <input checked="" type="checkbox"/> included/consulted content experts in the field <input checked="" type="checkbox"/> where relevant, searched for grey literature <input checked="" type="checkbox"/> conducted search within 24 months of completion of the review 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial Yes <input type="checkbox"/> No
<p>5. Did the review authors perform study selection in duplicate?</p>		
<p>For Yes, either ONE of the following:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> at least two reviewers independently agreed on selection of eligible studies and achieved consensus on which studies to include <input type="checkbox"/> OR two reviewers selected a sample of eligible studies <u>and</u> achieved good agreement (at least 80 percent), with the remainder selected by one reviewer. 		

AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both

<p>6. Did the review authors perform data extraction in duplicate?</p> <p>For Yes, either ONE of the following:</p> <p><input checked="" type="checkbox"/> at least two reviewers achieved consensus on which data to extract from included studies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> OR two reviewers extracted data from a sample of eligible studies <u>and</u> achieved good agreement (at least 80 percent), with the remainder extracted by one reviewer.</p>		
<p>7. Did the review authors provide a list of excluded studies and justify the exclusions?</p> <p>For Partial Yes: <input checked="" type="checkbox"/> provided a list of all potentially relevant studies that were read in full-text form but excluded from the review</p> <p>For Yes, must also have: <input checked="" type="checkbox"/> Justified the exclusion from the review of each potentially relevant study <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial Yes <input type="checkbox"/> No</p>		
<p>8. Did the review authors describe the included studies in adequate detail?</p> <p>For Partial Yes (ALL the following):</p> <p><input checked="" type="checkbox"/> described populations <input checked="" type="checkbox"/> described interventions <input checked="" type="checkbox"/> described comparators <input checked="" type="checkbox"/> described outcomes <input checked="" type="checkbox"/> described research designs</p> <p>For Yes, should also have ALL the following:</p> <p><input type="checkbox"/> described population in detail <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Partial Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> described intervention in detail (including doses where relevant)</p> <p><input type="checkbox"/> described comparator in detail (including doses where relevant)</p> <p><input type="checkbox"/> described study's setting</p> <p><input type="checkbox"/> timeframe for follow-up</p>		
<p>9. Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?</p>		
<p>RCTs</p> <p>For Partial Yes, must have assessed RoB from</p> <p><input type="checkbox"/> un-concealed allocation, <i>and</i> <input type="checkbox"/> lack of blinding of patients and assessors when assessing outcomes (unnecessary for objective outcomes such as all-cause mortality)</p>	<p>For Yes, must also have assessed RoB from:</p> <p><input type="checkbox"/> allocation sequence that was not truly random, <i>and</i> <input type="checkbox"/> selection of the reported result from among multiple measurements or analyses of a specified outcome</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> Partial Yes <input type="checkbox"/> No <input type="checkbox"/> Includes only NRSI</p>
<p>NRSI</p> <p>For Partial Yes, must have assessed RoB:</p> <p><input type="checkbox"/> from confounding, <i>and</i> <input type="checkbox"/> from selection bias</p>	<p>For Yes, must also have assessed RoB:</p> <p><input type="checkbox"/> methods used to ascertain exposures and outcomes, <i>and</i> <input type="checkbox"/> selection of the reported result from among multiple measurements or analyses of a specified outcome</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> Partial Yes <input type="checkbox"/> No <input type="checkbox"/> Includes only RCTs</p>
<p>10. Did the review authors report on the sources of funding for the studies included in the review?</p> <p>For Yes</p> <p><input type="checkbox"/> Must have reported on the sources of funding for individual studies included in the review. Note: Reporting that the reviewers looked for this information but it was not reported by study authors also qualifies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>		

AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both

<p>11. If meta-analysis was performed did the review authors use appropriate methods for statistical combination of results?</p>	
<p>RCTs</p> <p>For Yes:</p> <p><input type="checkbox"/> The authors justified combining the data in a meta-analysis <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> AND they used an appropriate weighted technique to combine study results and adjusted for heterogeneity if present. <input type="checkbox"/> No</p> <p><input type="checkbox"/> AND investigated the causes of any heterogeneity <input type="checkbox"/> No meta-analysis conducted</p>	
<p>For NRSI</p> <p>For Yes:</p> <p><input type="checkbox"/> The authors justified combining the data in a meta-analysis <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> AND they used an appropriate weighted technique to combine study results, adjusting for heterogeneity if present <input type="checkbox"/> No</p> <p><input type="checkbox"/> AND they statistically combined effect estimates from NRSI that were adjusted for confounding, rather than combining raw data, or justified combining raw data when adjusted effect estimates were not available <input type="checkbox"/> No meta-analysis conducted</p> <p><input type="checkbox"/> AND they reported separate summary estimates for RCTs and NRSI separately when both were included in the review</p>	
<p>12. If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?</p>	
<p>For Yes:</p> <p><input type="checkbox"/> included only low risk of bias RCTs <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> OR, if the pooled estimate was based on RCTs and/or NRSI at variable RoB, the authors performed analyses to investigate possible impact of RoB on summary estimates of effect. <input type="checkbox"/> No</p> <p><input type="checkbox"/> No meta-analysis conducted</p>	
<p>13. Did the review authors account for RoB in individual studies when interpreting/ discussing the results of the review?</p>	
<p>For Yes:</p> <p><input type="checkbox"/> included only low risk of bias RCTs <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> OR, if RCTs with moderate or high RoB, or NRSI were included the review provided a discussion of the likely impact of RoB on the results <input type="checkbox"/> No</p>	
<p>14. Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?</p>	
<p>For Yes:</p> <p><input type="checkbox"/> There was no significant heterogeneity in the results <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> OR if heterogeneity was present the authors performed an investigation of sources of any heterogeneity in the results and discussed the impact of this on the results of the review <input type="checkbox"/> No</p>	
<p>15. If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?</p>	
<p>For Yes:</p> <p><input type="checkbox"/> performed graphical or statistical tests for publication bias and discussed the likelihood and magnitude of impact of publication bias <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No meta-analysis conducted <input type="checkbox"/> No</p>	

AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both

16. Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?	
For Yes:	
<input type="checkbox"/> The authors reported no competing interests OR	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> The authors described their funding sources and how they managed potential conflicts of interest	<input type="checkbox"/> No

To cite this tool: Shea BJ, Reeves BC, Wells G, Thuku M, Hamel C, Moran J, Moher D, Tugwell P, Welch V, Kristjansson E, Henry DA. AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ*. 2017 Sep 21;358:j4008.

Appendix C. Example of AMSTAR assessments

Chen et al. (2010)

AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both

<p>1. Did the research questions and inclusion criteria for the review include the components of PICO?</p>		
<p>For Yes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Population <input type="checkbox"/> Intervention <input type="checkbox"/> Comparator group <input type="checkbox"/> Outcome 	<p>Optional (recommended)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Timeframe for follow-up 	<ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>2. Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?</p>		
<p>For Partial Yes: The authors state that they had a written protocol or guide that included ALL the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> review question(s) <input type="checkbox"/> a search strategy <input type="checkbox"/> inclusion/exclusion criteria <input type="checkbox"/> a risk of bias assessment 	<p>For Yes: As for partial yes, plus the protocol should be registered and should also have specified:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a meta-analysis/synthesis plan, if appropriate, <i>and</i> <input type="checkbox"/> a plan for investigating causes of heterogeneity <input type="checkbox"/> justification for any deviations from the protocol 	<ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> Partial Yes <input type="checkbox"/> No
<p>3. Did the review authors explain their selection of the study designs for inclusion in the review?</p>		
<p>For Yes, the review should satisfy ONE of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Explanation for including only RCTs <input type="checkbox"/> Yes <input type="checkbox"/> OR Explanation for including only NRSI <input type="checkbox"/> No <input type="checkbox"/> OR Explanation for including both RCTs and NRSI 		
<p>4. Did the review authors use a comprehensive literature search strategy?</p>		
<p>For Partial Yes (all the following):</p> <ul style="list-style-type: none"> <input type="checkbox"/> searched at least 2 databases (relevant to research question) <input type="checkbox"/> provided key word and/or search strategy <input type="checkbox"/> justified publication restrictions (e.g. language) 	<p>For Yes, should also have (all the following):</p> <ul style="list-style-type: none"> <input type="checkbox"/> searched the reference lists / bibliographies of included studies <input type="checkbox"/> searched trial/study registries <input type="checkbox"/> included/consulted content experts in the field <input type="checkbox"/> where relevant, searched for grey literature <input type="checkbox"/> conducted search within 24 months of completion of the review 	<ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> Partial Yes <input type="checkbox"/> No
<p>5. Did the review authors perform study selection in duplicate?</p>		
<p>For Yes, either ONE of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> at least two reviewers independently agreed on selection of eligible studies and achieved consensus on which studies to include <input type="checkbox"/> OR two reviewers selected a sample of eligible studies <i>and</i> achieved good agreement (at least 80 percent), with the remainder selected by one reviewer. 		

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<p>6. Did the review authors perform data extraction in duplicate?</p> <p>For Yes, either ONE of the following:</p> <p><input checked="" type="checkbox"/> at least two reviewers achieved consensus on which data to extract from included studies <input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> OR two reviewers extracted data from a sample of eligible studies <u>and</u> achieved good agreement (at least 80 percent), with the remainder extracted by one reviewer. <input type="checkbox"/> No</p>		
<p>7. Did the review authors provide a list of excluded studies and justify the exclusions?</p> <p>For Partial Yes: For Yes, must also have:</p> <p><input type="checkbox"/> provided a list of all potentially relevant studies that were read in full-text form but excluded from the review <input type="checkbox"/> Justified the exclusion from the review of each potentially relevant study <input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> Partial Yes</p> <p><input type="checkbox"/> No</p>		
<p>8. Did the review authors describe the included studies in adequate detail?</p> <p>For Partial Yes (ALL the following): For Yes, should also have ALL the following:</p> <p><input type="checkbox"/> described populations <input type="checkbox"/> described population in detail <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> described interventions <input type="checkbox"/> described intervention in detail (including doses where relevant) <input type="checkbox"/> Partial Yes</p> <p><input type="checkbox"/> described comparators <input type="checkbox"/> described comparator in detail (including doses where relevant) <input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> described outcomes <input type="checkbox"/> described study's setting</p> <p><input type="checkbox"/> described research designs <input type="checkbox"/> timeframe for follow-up</p>		
<p>9. Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?</p> <p>RCTs</p> <p>For Partial Yes, must have assessed RoB from For Yes, must also have assessed RoB from:</p> <p><input type="checkbox"/> unconcealed allocation, <i>and</i> <input type="checkbox"/> allocation sequence that was not truly random, <i>and</i> <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> lack of blinding of patients and assessors when assessing outcomes (unnecessary for objective outcomes such as all-cause mortality) <input type="checkbox"/> selection of the reported result from among multiple measurements or analyses of a specified outcome <input type="checkbox"/> Partial Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Includes only NRSI</p> <p>NRSI</p> <p>For Partial Yes, must have assessed RoB: For Yes, must also have assessed RoB:</p> <p><input type="checkbox"/> from confounding, <i>and</i> <input type="checkbox"/> methods used to ascertain exposures and outcomes, <i>and</i> <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> from selection bias <input type="checkbox"/> selection of the reported result from among multiple measurements or analyses of a specified outcome <input type="checkbox"/> Partial Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Includes only RCTs</p>		
<p>10. Did the review authors report on the sources of funding for the studies included in the review?</p> <p>For Yes</p> <p><input type="checkbox"/> Must have reported on the sources of funding for individual studies included in the review. Note: Reporting that the reviewers looked for this information but it was not reported by study authors also qualifies <input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>		

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<p>11. If meta-analysis was performed did the review authors use appropriate methods for statistical combination of results?</p>	
<p>RCTs</p> <p>For Yes:</p> <p><input type="checkbox"/> The authors justified combining the data in a meta-analysis <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> AND they used an appropriate weighted technique to combine study results and adjusted for heterogeneity if present. <input type="checkbox"/> No</p> <p><input type="checkbox"/> AND investigated the causes of any heterogeneity <input type="checkbox"/> No meta-analysis conducted</p>	
<p>For NRSI</p> <p>For Yes:</p> <p><input type="checkbox"/> The authors justified combining the data in a meta-analysis <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> AND they used an appropriate weighted technique to combine study results, adjusting for heterogeneity if present <input type="checkbox"/> No</p> <p><input type="checkbox"/> AND they statistically combined effect estimates from NRSI that were adjusted for confounding, rather than combining raw data, or justified combining raw data when adjusted effect estimates were not available <input type="checkbox"/> No meta-analysis conducted</p> <p><input type="checkbox"/> AND they reported separate summary estimates for RCTs and NRSI separately when both were included in the review</p>	
<p>12. If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?</p>	
<p>For Yes:</p> <p><input type="checkbox"/> included only low risk of bias RCTs <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> OR, if the pooled estimate was based on RCTs and/or NRSI at variable RoB, the authors performed analyses to investigate possible impact of RoB on summary estimates of effect. <input type="checkbox"/> No</p> <p><input type="checkbox"/> No meta-analysis conducted</p>	
<p>13. Did the review authors account for RoB in individual studies when interpreting/ discussing the results of the review?</p>	
<p>For Yes:</p> <p><input type="checkbox"/> included only low risk of bias RCTs <input type="checkbox"/> Yes</p> <p><input type="checkbox"/> OR, if RCTs with moderate or high RoB, or NRSI were included the review provided a discussion of the likely impact of RoB on the results <input type="checkbox"/> No</p>	
<p>14. Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?</p>	
<p>For Yes:</p> <p><input type="checkbox"/> There was no significant heterogeneity in the results</p> <p><input checked="" type="checkbox"/> OR if heterogeneity was present the authors performed an investigation of sources of any heterogeneity in the results and discussed the impact of this on the results of the review <input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	
<p>15. If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?</p>	
<p>For Yes:</p> <p><input checked="" type="checkbox"/> performed graphical or statistical tests for publication bias and discussed the likelihood and magnitude of impact of publication bias <input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> No meta-analysis conducted</p>	

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16. Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?	
For Yes:	
<input type="checkbox"/> The authors reported no competing interests OR	<input type="checkbox"/> Yes
<input type="checkbox"/> The authors described their funding sources and how they managed potential conflicts of interest	<input checked="" type="checkbox"/> No

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Appendix D. Table of ACEs and definitions

Abuse	Neglect	Household Dysfunction
Childhood Sexual Abuse (CSA)	Emotional	Parental Mental Illness
Childhood Emotional Abuse (CEA)	Physical	Incarceration
Childhood Physical Abuse (CPA)		Domestic Violence
		Substance Abuse
		Divorce

Review	ACE	Definition
Caslini et al. (2016)	CSA, CPA, CEA (used in criteria)	<p>CSA was defined by the occurrence of at least one of the following scenarios in an individual younger than 18 years (46):</p> <ol style="list-style-type: none"> 1. a sexual relationship with physical contact with a family member; 2. unwanted or forced sexual relationships with physical contact with a nonfamily adult member; and 3. a sexual relationship with a person at least 5 years older. <p>We then defined CPA as “a continuous physical assault by a person older than 18 years which leads to identifiable pain in a subject under the age of 18”</p> <p>CEA was defined as an act of omission and commission, which is judged based on a combination of community standards and professional expertise to be psychologically damaging. It is committed by parents or significant others who are in a position of differential power that render the child vulnerable, damaging immediately or ultimately the behavioural, cognitive, affective, social, and physiological functioning of the child</p>
Chen et al. (2010)	CSA (used in criteria)	<p>Sexual abuse exposure was categorized into 2 groups: <i>rape</i> and <i>all forms of sexual abuse</i>. <i>Rape</i> was defined as penetration (vaginal, anal, or oral) with a body part or foreign object. <i>All forms of sexual abuse</i> included a wide variety of definitions characterizing sexual violence (including, but not limited to, noncontact exposure of genitalia, threatened sexual violence, and contact involving genitalia and the mouth).</p>
Grogan et al. (2020)	Household dysfunction (used in criteria)	<p>Adversity, also known as ‘adverse life experiences’ (ALEs) within a mental health setting, includes any experiences or life events that have the potential to result in undesirable outcomes by disrupting normal functioning, and can be diverse in source, intensity and manifestation. These experiences can be socially induced (e.g. child maltreatment, family discord), or they may occur naturally over time (e.g. parental loss, family illness).</p> <p>Adverse parenting style; Family disharmony; Loss of a family member, relative or someone close; Familial mental health issues; Family comments about weight, eating or appearance; Family disruptions</p>
Lie Ro and Bang (2019)	Bullying	<p>Bullying refers to repeated negative and ill-intentioned behaviors directed against a person who has difficulty defending him or herself (Olweus, 1994). Such behaviors</p>

Smolak and Murnen, (2002)	CSA (not included in criteria)	<i>Almost all of the studies defined the abused and nonabused groups based on whether people had experienced CSA as determined by a scale like Finkelhor (Finkelhor & Browne, 1986).</i>
Wonderlich et al.	CSA (included in criteria)	<i>Sexual experiences involving physical contact with a family member at or before the age of 18, and unwanted or forced sexual experience involving physical contact with non-family member at or before the age of 18, or sexual experiences involving physical contact with an individual 5 or more years older than the subject before the age of 18.</i>

Appendix E. Search Strategy

PSYCHINFO search terms

1. Childhood Adversity/
2. Childhood adversit*.mp.
3. Adverse childhood experience*.mp.
4. Child abuse/
5. Child abuse.mp.
6. Childhood trauma*.mp.
7. Childhood maltreatment.mp.
8. Adverse childhood event*.mp.
9. 1or2or3or4or5or6or7or8
10. Exp Sexual abuse/
11. Child* sex* abuse.mp.
12. Exp Physical Abuse/
13. Child* physical abuse.mp.
14. Emotional abuse
15. Child* emotion* abuse
16. Abuse.mp.
17. Exp Child Neglect/
18. Child* neglect
19. Domestic Violence
20. Domestic violence.mp.
21. Exp Drug Abuse/
22. Exp Addiction/
23. Exp Drug Addiction/
24. Exp Alcohol addiction/
25. Substance abuse.mp.
26. Exp Mental Disorders/
27. Mental illness.mp.
28. Exp Divorce/
29. Exp Incarceration/
30. Exp Bullying/
31. Exp Teasing/
32. Exp School violence/
33. Bully*.mp.
34. Exp Poverty/
35. Develop* trauma.mp.
36. 10OR11OR12OR13OR14OR15OR16OR17OR18OR19OR20OR21OR22OR23OR24OR25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34 OR 35
32. Exp Eating Disorder/
33. Anorexia nervosa/

34. Anorexia*.mp.
35. Bulimia/
36. Bulimia*.mp.
37. Binge eating disorder/
38. Binge eat*.mp.
39. (Other specified feeding or eating disorder*).mp.
40. OSFED.mp
41. 37OR38OR39OR40OR41OR42OR43OR44OR45
42. Exp Meta analysis/
43. meta-analy*.mp.
44. meta analy.mp.
45. "systematic review"/
46. Systematic review.mp.
47. "literature review"/
48. 47OR48OR49OR50OR51

SCOPUS SEARCH

"CHILDHOOD ADVERSIT*" OR "ADVERSE CHILDHOOD EXPERIENCE*" OR "CHILD ABUSE" OR "CHILD* TRAUMA*" OR "CHILD* MALTREATMENT" OR "ADVERSE CHILD* EVENT*" OR "Sex* abuse" OR "Child sex abuse" OR "Physical Abuse" OR "Child physical abuse" OR "Emotional abuse" OR "Child emotion abuse" OR "Abuse" OR "Child Neglect" OR "Child neglect" OR "Domestic Violence" OR "Drug Abuse" OR "Addiction" OR "Substance abuse" OR "Mental Disorder*" OR "Mental illness*" OR "Divorce" OR "Incarcerat*" OR "Poverty" OR "Bully*" OR "Teasing" OR "School violence" OR "Poverty" OR "Developmental trauma"

AND

"EATING DISORDER*" OR "ANOREXIA" OR "BULIMIA" OR "BINGE EAT*" OR "OTHER SPECIFIED FEEDING OR EATING DISORDER*" OR "OSFED"

AND

"META ANALY*" OR "SYSTEMATIC REVIEW*" OR "LITERATURE REVIEW*"

Appendix F. Table of Outcome Measures included in Reviews

Review	ACE	Outcome Measure
Caslini et al. (2016)	CSA, CPA, CEA	Sexual Events Questionnaire (SEQ); Childhood Trauma Questionnaires (CTQ); Interview for Identifying Risk Factors for Eating Disorders (RFI, Version 2.0); Semi-structured interview on sexual and/or physical abuse; Life Events Questionnaire (LQE); Childhood Trauma Interview (CTI); Child Sexual Abuse Questionnaire (CSA); Trauma symptom Checklist 40; Modified Finkelhor Questionnaire; Sexual Life Events Questionnaire (SLEQ); SAEQ Sexual Abuse Exposure Questionnaire (SAEQ); Maternal and Paternal psychological Abuse (PSY); Childhood Experience of Care and Abuse Measure Interview (CECA)
Chen et al. (2010)	CSA	Secure Record; Structured interview
Connors and Morse (1993)	CSA	Sexual Life Events Questionnaire; Sexual abuse Screening Checklist; Interview; unspecified self report measure; Life Events Questionnaire
Grogan et al. (2020)	Household dysfunction	Semi-structured interview; Adjusted version of Dan McAdams Life Story Interview; Shame Experiences Interview; Experience of Shame Scale; Family History Research Diagnostic Criteria interview; Parental Bonding Instrument; Measure of Parental Style; Oxford Risk Factor Interview; Sibling Inventory of Differential Experience; Essen Trauma Inventory
Lie Ro and Bang (2019)	Bullying	BIVES = body image victimization experiences scale; CECA = childhood experiences of care and abuse interview; CRQ = childhood risk factors questionnaire;
Kimber et al., (2017)		The Childhood Trauma Questionnaire; Childhood Trauma Interview; Child Abuse and Trauma Scale; Childhood Experiences of Violence Questionnaire; Parental Bonding Instrument; Psychological Maltreatment Inventory; PSY Scale; Trauma Antecedents Questionnaire; Author-Specific/Single Item Measures (e.g. “As a child, do you remember being verbally abused?” “While growing up, did you see or hear family violence-such as your gather hitting your mother, or any family member beating up or inflicting bruises, burns or cuts on another family member?”)
Menzel et al. (2010)	<i>Teasing</i>	Perception of Teasing Scale (POTS; Thompson, Cattarin et al., 1995; Thompson, Coovert et al., 1995); Physical Appearance Related Teasing Scale (PARTS); Teasing measure created for study; Peer Inventory (PHI); Teasing Subscale of the Inventory of Peer Influence on Eating

		Concern; McKnight Risk Factor Survey-III (MRFS-III)
Molendjik et al. (2016)	<i>CSA, CPA, CEA</i> <i>Neglect</i>	No comprehensive list provided. Paper mentions interview, self report measures and Childhood trauma questionnaire.
Norman, Byambaa, Butchart, Scott & Vos, (2012)	<i>CPA, CSA,CEA, Neglectt</i>	Face-to-face interviews using CTS; Face-to-face interviews, items adapted from ACE questionnaire; Self-administered ACE questionnaire; SCID for DSM-III-R; Self-administered questionnaire—own questions; Telephone survey —own questions; Official record; Self-administered questionnaire with items from CTQ and CTS; Maternal behaviour assessed by interviewer; Neglect assessed by teacher interviews (GFES); School medical service answered a questionnaire about the hygiene of the child;
Pope and Hudson (1992)		Finkelhor Sexual Life Events Questionnaire; Interview; Sexual Events Questionnaire derived from that of Russell; Yes/No questions developed by authors
Pignatelli et al. (2017)	<i>Neglect</i>	CTQ-SF = Childhood Trauma Questionnaire–Short Form; QEWP-R = Questionnaire on Eating and Weight Patterns–Revised; NES = night eating disorder; CTQ = Childhood Trauma Questionnaire

Appendix G – Table of Overlapping Articles

Replicated Articles	Number of occurrences	Reviews included
Abramson and Lucido (1991)	2	Caslini et al. (2016) Smolak and Murnen (2002)
Allison et al. (2007)	3	Caslini et al. (2016) Pignatelli et al. (2017) Molendijk, Hoek, Brewerton and Elzinga (2017)
Bailey and Gibbons (1989)	2	Smolak and Murnen, 2002 Connors, M. E., & Morse, W. (1993)
Bardone-Cone et al. 2008	2	Kimber, et al. (2017) Molendijk, Hoek, Brewerton and Elzinga (2017)
Becker & Grilo (2011)	3	Pignatelli et al. (2017) Molendijk, Hoek, Brewerton and Elzinga (2017) Kimber, et al. (2017)
Cachelin et al 2005	3	Chen et al. (2010) Caslini et al. (2016)
Calam and Slade (1989)	4	Conors and Morse (1993) Grogan et al. (2020) Smolak and Murnen (2002) Wonderlich et al. (1997)
Carter et al. (2006)	2	Molendijk, Hoek, Brewerton and Elzinga (2017)
Castellini et al. (2013)	2	Molendijk, Hoek, Brewerton and Elzinga (2017)
Corstorphine et al. (2007)	2	Molendijk, Hoek, Brewerton and Elzinga (2017)
Cumella & Kally (2008)	2	Molendijk, Hoek, Brewerton and Elzinga (2017)
Deep et al. (1999)	2	Smolak and Murnen (2002) Molendijk, Hoek, Brewerton and Elzinga (2017)
Duarte and Pinto- Gouveia (2017)	2	Lie, Rø, and Bang (2019) Grogan et al. (2020)
Fairburn et al. (1998)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Lie, Rø, and Bang (2019)
Favaro et al. (1998)	2	Caslini et al. (2016)

		Molendijk, Hoek, Brewerton and Elzinga (2017)
Feldman and Meyer (2007)	2	Caslini et al. (2016) Molendijk, Hoek, Brewerton and Elzinga (2017)
Garfinkel et al. (1995)	3	Caslini et al. (2016) Connors and Morse, W. (1993) Molendijk, Hoek, Brewerton and Elzinga (2017)
Gonçalves et al. (2016)	2	Lie, Rø, and Bang (2019) Grogan et al. (2020)
Grilo & Masheb (2001;2002)	4	Caslini et al. (2016) Pignatelli et al. (2017) Molendijk, Hoek, Brewerton and Elzinga, 2017 Kimber, et al. (2017)
Hall, Tice, Beresford, Wooley, and Hall (1989)	3	Connors and Morse (1993) Smolak and Murnen (2002) Pope and Hudson (1992)
Hepp et al. (2007)	2	Molendijk, Hoek, Brewerton and Elzinga (2017)
Jackson and Chen 2007	2	Menzel et al. (2010) Lie, Rø, and Bang (2019)
Jaite et al 2012	4	Caslini et al. (2016) Pignatelli et al. (2017) Molendijk, Hoek, Brewerton and Elzinga (2017)
Kugu et al. (2006)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Kimber, et al. (2017)
Lehoux & Howe (2007)	2	Grogan et al. (2020) Lie, Rø, and Bang (2019)
Léonard et al. (2003)	2	Caslini et al. (2016) Molendijk, Hoek, Brewerton and Elzinga (2017)
Machado et al. (2014)	3	Lie, Rø, and Bang, 2019 Grogan et al. (2020) Molendijk, Hoek, Brewerton and Elzinga, 2017
Miller et al. 1993	2	Caslini et al. (2016) Smolak and Murnen (2002)
Moulton et al.	2	Kimber, et al. (2017) Caslini et al. (2016)

Nagata et al. (2001)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Caslini et al. (2016)
Olivardia et al. (1995)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Caslini et al. (2016)
Oppenheimer, Howells, Palmer and Chaloner (1985)	3	Pope and Hudson (1992) Molendijk, Hoek, Brewerton and Elzinga (2017) Connors and Morse (1993)
Palmer, Oppenheimer, Dignon, Chaloner and Howells (1990)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Connors and Morse (1993)
Pitts and Waller (1993)	2	Smolak and Murnen (2002) Molendijk, Hoek, Brewerton and Elzinga (2017)
Rayworth et al. (2004)	2	Molendijk, Hoek, Brewerton and Elzinga (2017)
Romans et al. (2001)	2	Caslini et al. (2016) Molendijk, Hoek, Brewerton and Elzinga (2017)
Root and Fallon (1988)	4	Connors and Morse (1993) Pope and Hudson (1992) Molendijk, Hoek, Brewerton and Elzinga (2017)
Rorty et al. (1994)	3	Kimber, et al. (2017) Caslini et al. (2016) Molendijk, Hoek, Brewerton and Elzinga (2017)
Sanci et al. (2008)	2	Molendijk, Hoek, Brewerton and Elzinga (2017)
Schmidt et al. (1993)	2	Grogan et al. (2020) Molendijk, Hoek, Brewerton and Elzinga (2017)
Schoemaker et al.	2	Kimber, et al. (2017) Grogan et al. (2020)
Smolak, Levine, and Sullins (1990)	2	Connors and Morse (1993) Smolak and Murnen (2002)
Steiger and Zanko (1990)	4	Pope and Hudson (1992) Connors and Morse (1993) Caslini et al. (2016) Wonderlich et al. (1997)

Striegel-Moore, Dohm, Pike, Wilfley, and Fairburn (2002)	5	Lie, Rø, and Bang (2019) Grogan et al. (2020) Chen et al. (2010) Caslini et al. (2016) Molendijk, Hoek, Brewerton and Elzinga (2017)
Stuart et al. (1990)	4	Pope and Hudson (1992) Chen et al. (2010) Caslini et al. (2016) Molendijk, Hoek, Brewerton and Elzinga (2017)
Sweetingham and Waller (2008)	2	Menzel et al. (2010) Grogan et al. (2020)
Waller (1992)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Smolak and Murnen (2002)
Waller (1998)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Smolak and Murnen (2002)
Webster & Palmer (2000)	3	Grogan et al. (2020) Caslini et al. (2016) Molendijk, Hoek, Brewerton and Elzinga (2017)
Welch and Fairburn (1996)	3	Smolak and Murnen (2002) Chen et al. (2010) Caslini et al. (2016)
Wentz et al. (2005)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Caslini et al. (2016)
Wonderlich et al. (2007)	2	Molendijk, Hoek, Brewerton and Elzinga (2017) Kimber, et al. (2017)

Appendix H. Operationalised plan of risk assessment and management



Negative Childhood experiences, Emotions and the Anorexic Voice– Operationalised Plan of Risk Assessment and Management (Version 1.0)

1. Introduction

- There is a potential for disclosures of current and historical abuse, increased emotional distress and BMI lower than 14 in all participants recruited to the project. This document will detail the possible circumstances during which disclosures of risk may be made. This document will also describe how the researcher will respond to disclosures of risk.
- The project will ask participants to discuss their experiences of negative childhood experiences and diagnosis of anorexia nervosa. This may lead to disclosures of current or unreported historic abuse, low BMI and emotional distress. Therefore, the assessment and management of risk is an essential aspect of the project.
- The project will be advertised via social media – namely Facebook, Instagram and Twitter. Individuals will self-select to take part in the research by following an online link which will take them to a Qualtrics survey designed by the researcher.
- We will only recruit individuals living within the United Kingdom to ensure that the research team are familiar with risk management services if needed e.g. emergency service, safeguarding.
- Whilst not an exhaustive list, the following are the most likely risks which the individual may report during the research:
 - o Current or unreported historic abuse
 - o Current BMI under 14
 - o Emotional distress
- The following are additional risks which may present during the research – but are less likely – and will be discussed generally with plans of how to manage them.
 - o Threats to others.
 - o Risk to under eighteens.
 - o Risk to self

2. Terminology

- Negative childhood experiences are stressful events occurring in childhood including (but not limited to):
 - o witnessing domestic violence
 - o parental abandonment through separation or divorce
 - o a parent with a mental health condition
 - o being the victim of abuse (physical, sexual and/or emotional)

- being the victim of neglect (physical and emotional)
- a member of the household being in prison
- growing up in a household in which there are adults experiencing alcohol and drug use problems.

3. Details taken to mediate risk factors

- Individuals will be informed that a number of personal details will be taken to mediate risk factors. This will be part of gaining informed consent to participate in the research. Declining to provide these details will mean the individual cannot be recruited to the study.
 - Name
 - Date of Birth
 - Contact phone number and e-mail
- Individuals will be required to submit these details via a Qualtrics survey. The individual will be unable to proceed to expressing an interest in participating until all these details are provided.
- Individuals are given an option to decline consent to provide these details, however this will end the Qualtrics survey and inform the individual that they are unable to participate

4. Assessment of Risk

- There are multiple opportunities for the disclosure (and thereby assessment) of current or historic abuse, low BMI and/or heightened emotional distress hereby referred to as stages of the project:
 - Details provided on Qualtrics survey.
 - Initial contact between researcher and participant.
 - Informed consent process.
 - Qualitative Interview.
 - Debrief
- Experiences of negative childhood events and a diagnosis of anorexia nervosa are inclusion criterion for the project.

5. Ongoing factors to mediate risk

- The following will be included in the participant information sheet, and read to the prospective participant by the researcher during initial contact via phone/email and at the beginning of the interview:
 - During the interview we are going to be discussing potentially distressing topics such as negative childhood experiences, the anorexic voice, and your diagnosis of anorexia. Your participation is voluntary, and you can ask to stop the interview at any time. If you share identifiable information of current abuse or unreported historic abuse, I have a duty of care to act. At this point we will stop the interview and I will inform you of what the next steps will be.
 - This is standard practice in clinical settings following published guidance from the British Psychological Society (BPS, 2016) and The Care Act (2014).

- The Chief Investigators (CI) (Clinical Psychologists acting as supervisors for the project) will be made aware of all scheduled client contact.
- The Researcher is a third year Trainee Clinical Psychologist and will take part in fortnightly supervision with both the CIs.

The tables below summarise the operational and risk management plan of how disclosures of risk will be managed. In all situations the chief investigator will be updated.

6. Disclosures of current or unreported historic abuse

Stage of Project	Possible Risk	Management Plan
Initial contact between prospective participant and researcher (phone call or email)	Prospective participant discloses current abuse or unreported historic abuse.	Individual not to be recruited. Individual signposted to appropriate services including GP, police, local crisis team, BEAT UK. Update CI.
Informed Consent at the beginning of the interview	Individual discloses current abuse or unreported historic abuse. Individual declines consent Individual declines consent and then discloses current abuse	Above plan followed. Inform CI. This will equate to the individual declining consent to participate and will not be able to be recruited to project. Inform CI. Inform individual that due to risk confidentiality will be broken and follow above plan. Inform CI.
Qualitative Interview	Individual discloses current abuse or unreported historic abuse (no identifiable information)	Stop qualitative interview. Researcher to give participant full debrief. Individual signposted to appropriate services including GP, local crisis team and BEAT UK. Update CI and request advice. Stop qualitative interview.

	Individual discloses current abuse or unreported historic abuse (identifiable information included)	Individual informed that the researcher will have to contact safeguarding officials, e.g. social services, police. Researcher to give participant full debrief. Individual signposted to appropriate services including GP, local crisis team and BEAT UK. Update CI and request advice.
Debrief	Individual discloses current abuse or unreported historic abuse (no identifiable information) Individual discloses current abuse or unreported historic abuse (identifiable information included)	Follow above plan. Follow above plan.

7. Disclosures of current BMI below 14

- There is a low risk that individuals may disclose to the research that they currently have a BMI of 14 or below.

Stage of Project	Possible Risk	Management Plan
Qualtrics survey	When asked what their current BMI is, prospective participant discloses they have a BMI of 14 or under.	If answer is 14 or below individuals are taken to a page which informs them that the information they have provided indicates they are very severely underweight and advises them to contact medical services, either GP or emergency services. . Individual also signposted to BEAT UK website. Qualtrics does not allow the prospective participant to continue with the project.

<p>Initial contact between prospective participant and researcher (over phone or email).</p>	<p>Prospective participant discloses they have a BMI of 14 or under.</p>	<p>Individual not to be recruited.</p> <p>Individual informed that their BMI is in the severely underweight category and advised to contact medical services, either GP or emergency services. Individual signposted to appropriate services including GP, local crisis team and BEAT UK.</p> <p>CI Updated.</p>
<p>Informed Consent at the beginning of the interview</p>	<p>Individual discloses BMI 14 or below during consenting for research project.</p>	<p>Individual not to be recruited.</p> <p>Individual informed that their BMI is in the severely underweight category and advised to contact medical services, either GP or emergency services. Individual signposted to appropriate services including GP, local crisis team and BEAT UK.</p> <p>CI Updated.</p>
<p>Qualitative Interview</p>	<p>Individual discloses BMI of 14 or under.</p>	<p>Stop Qualitative Interview</p> <p>Researcher to give participant full debrief</p> <p>Individual informed that their BMI is in the severely underweight category and advised to contact medical services, either GP or emergency services. Individual signposted to appropriate services including GP, local crisis team and BEAT UK.</p> <p>CI Updated</p>
<p>Debrief</p>	<p>Individual discloses BMI 14 or below</p>	<p>Researcher to give participant full debrief</p> <p>Individual informed that their BMI is in the severely underweight category and advised to contact medical services, either GP or emergency services. Individual signposted to appropriate services including GP, local crisis team and BEAT UK.</p>

		CI Updated
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8. Disclosures of emotional distress

- There is a risk that individuals may become emotionally distressed as they discuss aspects of their experience of negative childhood events and diagnosis of anorexia nervosa.
- The potential risk of increased emotional distress of the research will be stipulated in the Participant information sheet.
- A message will appear on Qualtrics survey that informs the potential participant of the potential risk of increased emotional distress of the research.
- The researcher is a third year Trainee Clinical Psychologist with a wealth of experience in managing individuals’ emotional distress.
- Supervision will also be given fortnightly by research Supervisors/Chief Investigators who are both highly experienced Clinical Psychologists.

Stage of Project	Possible Risk	Management Plan
Initial contact between prospective participant and researcher (over phone or email).	Prospective participant discloses increased emotional distress.	Individual will be asked if they wish to continue with the project and reminded of the voluntary nature of participation. Individual signposted to appropriate services including GP, local crisis team and BEAT UK. CI Updated.
Informed Consent at the beginning of the interview	Individual discloses increased emotional distress.	Individual will be asked if they wish to continue with the project and reminded of the voluntary nature of participation. Individual signposted to appropriate services including GP, local crisis team and BEAT UK. CI Updated.
Qualitative Interview	Individual discloses increased emotional distress during interview	Stop Qualitative Interview Researcher to give participant full debrief

		Individual signposted to appropriate services including GP, local crisis team and Beat UK. CI Updated
Debrief	Individual discloses increased emotional distress.	Researcher to give participant full debrief Individual signposted to appropriate services including GP, local crisis team and BEAT UK. CI Updated

9. Risk– Threat to others, Risk to under eighteens. Risk to self

- As part of gaining informed consent participants will be informed that any disclosures which indicate that others are at risk will result in them not being able to be part of the research.
- The research will follow legislative guidance outline in The Care Act (2014) and Children’s Act (2004) and national policies.
- These will include reports that an adult may be at risk of neglect, physical abuse, domestic violence, sexual abuse, psychological/emotional abuse, financial/material abuse, modern slavery, discriminatory abuse and organisation/institutional abuse.
 - o Interview will be stopped – at any stage
 - o If immediate risks are concerned police to be informed and CIs will be informed
 - o Participants will be informed unless this poses an additional risk to the adult or others (decision made in discussion with the CI)
- If during the interview participants disclose information that the researcher assesses as posing a possible risk to children (this include risk of neglect, sexual abuse, physical abuse and emotional/psychological abuse), the following plan will be followed:
 - o CI will be informed.
 - o If immediate risks are identified, police to be contacted in discussion with CIs.
 - o Participants will be informed unless this poses a risk to the child (decision made in discussion with the CIs)

Appendix I. Online Qualtrics questionnaire: Participant Information sheet, Consent Form, Demographic questions



Thank you for taking the time to consider participating in this research project.

My name is Georgette Morrison and I am a Trainee Clinical Psychologist on the South Wales Doctoral Programme in Clinical Psychology. I am carrying out this study as part my training.

The research is being supervised by Dr John Fox (Clinical Psychologist, South Wales Programme in Clinical Psychology) and Dr Marc Williams (Clinical Psychologist, South Wales Programme in Clinical Psychology).

What is the purpose of this research?

Many individuals diagnosed with anorexia nervosa describe their disorder as being represented by an internal 'voice', which has been called the anorexic voice. People who experience this voice often say that it negatively comments on their weight, shape and eating but it can also comment on any aspect of their life. This study aims to gain an understanding of the experiences of childhood negative events among those who identify with having an anorexic voice. It is hoped that this study will provide a greater understanding of the experience of childhood negative events and the anorexic voice so that treatments of anorexia nervosa can be tailored to the needs of people who have this experience.

Taking part in this research will involve being interviewed by a member of the research team about your experiences. Discussing negative childhood events and anorexia nervosa can be difficult and emotional; therefore, it is important that you understand what taking part may involve.

This survey will take about 20 minutes to complete. It aims to provide some details about what taking part will involve and will ask you some questions about yourself and your experience of anorexia nervosa. You will also be asked to complete the **Eating Disorder examination questionnaire (EDE-Q 6.0)**.

After answering certain questions the survey may inform you that it may not be appropriate for you to take part in the project. Please do not be offended if this occurs as it could be that taking part in an interview may not be helpful for you at this current moment in time.

This survey is related to the research project described above and it is not staffed 24 hours. Whilst responses will be checked regularly, you might find it useful to access the following resources:

- <https://www.mind.org.uk/information-support/types-of-mental-health-problems/mental-health-problems-introduction/self-care/>
- <https://www.beateatingdisorders.org.uk/>
- <https://www.nhs.uk/conditions/eating-disorders/>





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Do you have to take part?

You are under no obligation to take part in the research. Even if you do agree to take part you may change your mind until the end of the interview, without having to give a reason. Participation is entirely voluntary. You may wish to take this information and speak with somebody independent, such as a friend, family member, or trusted professional when deciding whether to take part in the research.

In order to take part in this research you will need to be eighteen years old or above and have been diagnosed with anorexia nervosa. Your safety is of the utmost importance to us and if your BMI is currently 14 or under, participating in this research may have the potential to be unhelpful. Therefore, we are unable to accept people whose BMI is currently 14 or under

Please indicate your current age:

- Under 18 years old
- 18 years old or over



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Please indicate your current BMI

- BMI 14 or under
- BMI above 14





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Have you received a diagnosis of Anorexia Nervosa from a healthcare professional?

- Yes - I have received a diagnosis of Anorexia Nervosa from a healthcare professional (past or present)
- No - I have not received a diagnosis of Anorexia Nervosa from a healthcare professional



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Are you currently living in the United Kingdom?

- Yes - I am currently living in the United Kingdom
- No - I am not currently living in the United Kingdom





Thank you for continuing to express your interest in this research project.

If you agree to take part in the project a 90 minute interview will be arranged. During this interview you and the researcher will discuss questions such as what life was like for you when you were growing up, how you experience the anorexic voice, what your experience of having a diagnosis of anorexia is, and your opinions about how they influence each other. You will also be asked to complete The Childhood Trauma Questionnaire (CTQ) (Bernstein and Fink, 1998) with the researcher. You do not have to answer any questions that you do not want to. I will record the interview so that I can type up what we both said during the interview. After the interview you will have the opportunity to ask any questions or discuss any concerns that you may have about taking part in the research.

Previous research which has interviewed people about their childhood experiences and diagnosis reported that individuals have found participating in research as a helpful experience. However, the research team are mindful that we will be asking you questions of a highly emotional nature and there may be a risk that you may become upset as part of the interview process. You may experience a range of uncomfortable emotions during the interview, such as sadness, or experience negative thoughts about what happened. Every effort will be made to minimise any distress, for example stopping the interview if you wish, or taking breaks. There will also be a 20min debrief included at the end of the interview where we will discuss how you are feeling. There will be time at the end of the interview to ask me any questions or raise any concerns about the research interview.

Additionally, you always have the right to end the interview and withdraw your information.

In order to organise the interviews we will require you to submit the following information

- Name
- Date of Birth
- Contact phone number and e-mail

What will happen to this information?

After the interview I will type out what we both said so that I can think about the interview in more detail and develop an understanding of common themes between participants. All audio recordings and typed transcripts will remain anonymous; your name or details will not be linked to your interview transcript. All transcripts and audio recordings will be kept in a secure storage facility such as a lockable filing cabinet.

My supervisors will look at anonymised sections of the transcripts to support me in thinking about the interviews. As part of my training programme I need to write up my findings in a research report. I will include anonymised extracts from interviews within the report, and a full anonymised transcript will be included in an Appendix. Your demographic information will not be linked to the transcript in any way so that participants cannot be identified in any way.

In the future, I hope to publish my research in an academic journal and present my findings at relevant conferences. At the end of the research interview I will ask you if you would like a summary of the findings once I have written up the research. Alternatively, you are welcome to read my full research report.



What will happen if I don't want to carry on with the study?

If you decide you wish to withdraw from the study please let me know by contacting me on the email address or telephone number given below. Unfortunately, as your responses will be kept anonymously, you will not be able to withdraw your interview data once the interview has finished as the researcher will not be able to relate interviews to individuals

What if there is a problem?

If you have any concerns about any aspect of this research, you can contact me, and I will do my best to answer your questions. Alternatively, you can contact my research supervisor, Dr John Fox or Dr Marc Williams, whose contact details are below.

Will my taking part in this study be kept confidential?

All information gathered during the research will be kept strictly confidential. All identifiable information such as names and addresses will be removed. As with any meeting with a health professional there are some limits to confidentiality. I am obliged to breach confidentiality and inform another professional, (likely to be your GP), if you disclose any information that suggests that either you or anybody else is at risk of harm. If possible I will aim to discuss this with you first.

Who has reviewed the study?

This study has been reviewed and approved by the Research Ethics Committee for Cardiff University. This process is to protect your rights, safety and dignity

Contact Details:

Georgette Morrison (Trainee Clinical Psychologist)
Morrisonga@cardiff.ac.uk

Dr John Fox (Clinical Psychologist)
Associate Programme Director/ Clinical Director, South Wales Doctoral Programme in Clinical Psychology
foxj10@cardiff.ac.uk

Dr Marc Williams (Clinical Psychologist)
Senior Academic Tutor, South Wales Doctoral Programme in Clinical Psychology
williamsm93@cardiff.ac.uk

School of Psychology Research Ethics Committee
Secretary to the Research Ethics Committee School of Psychology
Tower Building
70 Park Place , Cardiff, CF10 3AT
Email: psychethics@cardiff.ac.uk



Consent Form

I understand that my participation in this project will involve a 90 minute interview about my experiences of negative childhood events and anorexia and completion of The Childhood Trauma Events Scale (CTES) with a Trainee Clinical Psychologist. This will be conducted over video conferencing and will be recorded.

I understand that participation in this study is entirely voluntary and that I can withdraw from the study without giving a reason. I also understand that I can withdraw my data from the study up until the point the data is anonymised at the conclusion of the interview.

I understand that I am free to ask any questions at any time. I am free to withdraw or discuss my concerns with the researcher, Georgette Morrison, or the supervisors, Dr John Fox and Dr Marc Williams.

I understand that the research information provided by me will be assigned an anonymous identifier so that it is impossible to trace this information back to me individually. I understand that this information will be kept for 7 years and may be included in published work.

I understand that the research data being collected will include some sensitive information, such as personal experiences of negative events. I specifically consent to this information being processed for the purposes of research.

I understand that information I give may be published as part of the research, however, this will be fully anonymised and non-identifiable.

I understand that, to take part in the research, I will be required to provide my name, date of birth, contact phone number and email address.

I understand that the personal data will be processed in accordance with GDPR regulations (see privacy statement below).

I understand that at the end of the study I will be provided with additional information and feedback about the purpose of the study.

School of Psychology Research Ethics Committee
Secretary to the Research Ethics Committee School of Psychology
Tower Building
70 Park Place , Cardiff, CF10 3AT
Email: psychethics@cardiff.ac.uk

- I CONSENT to all of the above
- I DO NOT CONSENT to all of the above

Privacy Notice:

The information provided will be held in compliance with GDPR regulations. Cardiff University is the data controller and Matt Cooper is the data protection officer (inforequest@cardiff.ac.uk). The lawful basis for processing this information is public interest. This information is being collected by [name of researcher].

The information on the consent form will be held securely and separately from the research information. Only the researcher will have access to this form, and it will be destroyed after 7 years.

The research information you provide will be used for the purposes of research only and will be stored securely. Only [describe all people with permission to access non-anonymised data] will have access to this information. After [give length of time] the data will be anonymised (any identifying elements removed) and this anonymous information may be kept indefinitely or published. [If you are planning on doing anything unusual with the data (sharing it with people outside the EU or using it for teaching) then you will need to edit this notice].





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Please write your name in the box below

Please write your date of birth in the box below in the format dd/mm/yyyy

Please enter your contact telephone number in the box below

Please enter your contact email address in the box below

What is your gender?

- Female
- Male
- Non-binary
- Transman
- Transwoman
- Other
- Prefer not to say

Which of these best describes your ethnicity?

- Black English/ Scottish/ Welsh/ Northern Irish/ British
- Black Irish
- Black African
- Black Caribbean
- Any other Black / African / Caribbean background
- White English / Welsh / Scottish / Northern Irish / British
- White Irish
- Gypsy or Irish Traveller
- Any other White background
- Black Caribbean and White
- Black African and White
- Black British and White
- Asian and Black Caribbean
- Asian and Black African
- Asian and Black British
- Asian and White
- Any other Mixed / Multiple ethnic background
- Asian / Asian British
- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background
- Prefer not to say

What is the highest degree or **level** of **school** you have completed?

- Primary School
- High School
- College
- Undergraduate University
- Postgraduate University





Please enter your current height in cm or Feet and Inches

cm

Feet and inches

Please enter your current weight in either Kg or stone/pounds or pounds in the boxes below

Kg

Stone and pounds

Pounds

Please enter your current weight in either Kg or stone/pounds or pounds in the boxes below

Kg

Stone and pounds

Pounds

Please enter your lowest weight in either Kg or stone/pounds or pounds in the boxes below

Kg

Stone and pounds

pounds





Thank you for taking the time to participate in this research project.

The researcher will review your responses and get in touch with you via the contact details you provided. If your responses on this survey meet the requirements for taking part, the researcher will discuss a date and time for you to take part in the 90 minute interview. If you have any questions in the meantime please contact myself or my supervisors on

Georgette Morrison (Trainee Clinical Psychologist)
Morrisonga@cardiff.ac.uk

Dr John Fox (Clinical Psychologist)
Associate Programme Director/ Clinical Director, South Wales Doctoral Programme in
Clinical Psychology
foxj10@cardiff.ac.uk

Dr Marc Williams (Clinical Psychologist)
Senior Academic Tutor, South Wales Doctoral Programme in Clinical Psychology
williamsm93@cardiff.ac.uk



We thank you for your time spent taking this survey.
Your response has been recorded.

Appendix J. Eating Disorder examination questionnaire (EDE-Q 6.0)



Eating Disorder examination questionnaire (EDE-Q 6.0)

Instructions: The following questions are concerned with the past four weeks (28 days) only.

Please read each question carefully. Please answer all the questions. Thank you.

Questions 1 to 12: Please circle the appropriate number on the right. Remember that the questions only refer to the past four weeks (28 days) only.

	ON HOW MANY OF THE PAST 28 DAYS ...	NO DAYS	1-5 DAYS	6-12 DAYS	13-15 DAYS	16-22 DAYS	23-27 DAYS	EVERY DAY
1	Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
2	Have you gone for long periods of time (8 waking hours or more) without eating anything at all in order to influence your shape or weight?	0	1	2	3	4	5	6
3	Have you tried to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
4	Have you tried to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
5	Have you had a definite desire to have an empty stomach with the aim of influencing your shape or weight?	0	1	2	3	4	5	6
6	Have you had a definite desire to have a totally flat stomach?	0	1	2	3	4	5	6
7	Has thinking about food, eating or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?	0	1	2	3	4	5	6
8	Has thinking about shape or weight made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?	0	1	2	3	4	5	6
9	Have you had a definite fear of losing control over eating?	0	1	2	3	4	5	6
10	Have you had a definite fear that you might gain weight?	0	1	2	3	4	5	6
11	Have you felt fat?	0	1	2	3	4	5	6
12	Have you had a strong desire to lose weight?	0	1	2	3	4	5	6

PAGE 1/3 PLEASE GO TO THE NEXT PAGE



Eating Disorder examination questionnaire (EDE-Q 6.0)

Questions 13-18: Please fill in the appropriate number in the boxes on the right. Remember that the questions only refer to the past four weeks (28 days).

Over the past four weeks (28 days)....

13	Over the past 28 days, how many times have you eaten what other people would regard as an unusually large amount of food (given the circumstances)?	
14	... On how many of these times did you have a sense of having lost control over your eating (at the time you were eating)?	
15	Over the past 28 days, on how many DAYS have such episodes of overeating occurred (i.e. you have eaten an unusually large amount of food and have had a sense of loss of control at the time)?	
16	Over the past 28 days, how many times have you made yourself sick (vomit) as a means of controlling your shape or weight?	
17	Over the past 28 days, how many times have you taken laxatives as a means of controlling your shape or weight?	
18	Over the past 28 days, how many times have you exercised in a "driven" or "compulsive" way as a means of controlling your weight, shape or amount of fat, or to burn off calories?	

Questions 19 to 21: Please circle the appropriate number. Please note that for these questions the term "binge eating" means eating what others would regard as an unusually large amount of food for the circumstances, accompanied by a sense of having lost control over eating.

		NO DAYS	1-5 DAYS	6-12 DAYS	13-15 DAYS	16-22 DAYS	23-27 DAYS	EVERY DAY
19	Over the past 28 days, on how many days have you eaten in secret (ie, furtively)? ... Do not count episodes of binge eating.	0	1	2	3	4	5	6
		NONE OF THE TIMES	A FEW OF THE TIMES	LESS THAN HALF	HALF OF THE TIMES	MORE THAN HALF	MOST OF THE TIME	EVERY TIME
20	On what proportion of the times that you have eaten have you felt guilty (felt that you've done wrong) because of its effect on your shape or weight? ... Do not count episodes of binge eating.	0	1	2	3	4	5	6
			NOT AT ALL	SLIGHTLY	MODERATELY		MARKEDLY	
21	Over the past 28 days, how concerned have you been about other people seeing you eat? ... Do not count episodes of binge eating.	0	1	2	3	4	5	6

PAGE 2/3 PLEASE GO TO THE NEXT PAGE



Eating Disorder examination questionnaire (EDE-Q 6.0)

Questions 22 to 28: Please circle the appropriate number on the right. Remember that the questions only refer to the past four weeks (28 days).

	ON HOW MANY OVER THE PAST 28 DAYS ...	NOT AT ALL	SLIGHTLY		MODERATELY		MARKEDLY	
22	Has your weight influenced how you think about (judge) yourself as a person?	0	1	2	3	4	5	6
23	Has your shape influenced how you think about (judge) yourself as a person?	0	1	2	3	4	5	6
24	How much would it have upset you if you had been asked to weigh yourself once a week (no more, or less, often) for the next four weeks?	0	1	2	3	4	5	6
25	How dissatisfied have you been with your weight ?	0	1	2	3	4	5	6
26	How dissatisfied have you been with your shape ?	0	1	2	3	4	5	6
27	How uncomfortable have you felt seeing your body (for example, seeing your shape in the mirror, in a shop window reflection, while undressing or taking a bath or shower)?	0	1	2	3	4	5	6
28	How uncomfortable have you felt about others seeing your shape or figure (for example, in communal changing rooms, when swimming, or wearing tight clothes)?	0	1	2	3	4	5	6

What is your weight at present? (Please give your best estimate.):

What is your height? (Please give your best estimate.):

If female: Over the past three to four months have you missed any menstrual periods?: YES NO

If so, how many?:

Have you been taking the "pill"?: YES NO

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THANK YOU

Appendix K – Childhood Traumatic Events Scale

Childhood Traumatic Events Scale

For the following questions, answer each item that is relevant. Be as honest as you can. Each question refers to any event that you may have experienced **prior to the age of 17**.

1. Prior to the age of 17, did you experience a death of a very close friend or family member? _____ If yes, how old were you? _____
If yes, how traumatic was this? (using a 7-point scale, where 1 = not at all traumatic, 4 = somewhat traumatic, 7 = extremely traumatic) _____
If yes, how much did you confide in others about this traumatic experience at the time? (1 = not at all, 7 = a great deal) _____
2. Prior to the age of 17, was there a major upheaval between your parents (such as divorce, separation)? _____ If yes, how old were you? _____
If yes, how traumatic was this? (where 7 = extremely traumatic) _____
If yes, how much did you confide in others? (7 = a great deal) _____
3. Prior to the age of 17, did you have a traumatic sexual experience (raped, molested, etc.)? _____ If yes, how old were you? _____
If yes, how traumatic was this? (7 = extremely traumatic) _____
If yes, how much did you confide in others? (7 = a great deal) _____
4. Prior to the age of 17, were you the victim of violence (child abuse, mugged or assaulted -- other than sexual)? _____ If yes, how old were you? _____
If yes, how traumatic was this? (7 = extremely traumatic) _____
If yes, how much did you confide in others? (7 = a great deal) _____
5. Prior to the age of 17, were you extremely ill or injured? _____ If yes, how old were you? _____
If yes, how traumatic was this? (7 = extremely traumatic) _____
If yes, how much did you confide in others? (7 = a great deal) _____
6. Prior to the age of 17, did you experience any other major upheaval that you think may have shaped your life or personality significantly? _____ If yes, how old were you? _____
If yes, what was the event? _____
If yes, how traumatic was this? (7 = extremely traumatic) _____
If yes, how much did you confide in others? (7 = a great deal) _____

Appendix L. Participant Debrief Form



Debrief

Name of department: Doctorate of Clinical Psychology

Title of the study: Negative Childhood Experiences, Emotions, and the “Anorexic Voice”

The researchers

My name is Georgette Morrison and I am a Trainee Clinical Psychologist on the South Wales Doctoral Programme in Clinical Psychology. I am carrying out this study as part my training. The research is being supervised by Dr John Fox (Clinical Psychologist, South Wales Programme in Clinical Psychology) and Dr Marc Williams (Clinical Psychologist, South Wales Programme in Clinical Psychology).

This study is concerned with the relationship between negative childhood events, anorexia nervosa and the development of the anorexic voice. Previous studies have found that experiences of the anorexic voice may partly stem from early negative events in childhood (e.g. parental criticism).

What were you asked to do?

In this study, you were asked to take part in an interview which asked you to discuss your experience of childhood negative event, diagnosis of anorexia nervosa and the anorexic voice. You were also asked to complete The Childhood Trauma Questionnaire (CTQ) (Bernstein and Fink, 1998). All participants engaged in a similar interview and questionnaire.

Background information

Anorexia nervosa (AN) is a difficult disorder to treat. Many individuals diagnosed with anorexia nervosa describe their disorder as being represented by an internal ‘voice’. Research suggests this might be a part of the development and maintenance of the illness. The anorexic voice (AV) is an internal dialogue which is different from more typical self-critical thoughts or auditory hallucinations. It is usually experienced as a second or third person commentary on thoughts and behaviours relating to weight and shape. The literature also suggests that there is a link between individuals who experience adverse childhood events and those who go on to develop an eating disorder. It has been suggested that this is due to early life events disrupting the learning of emotion regulation skills throughout childhood, which can leave the individual with a sense that their emotions are out of control and amplifies the poorly defined sense of self. There appears to be a link between the impact of adverse early childhood experiences and emotional regulation with the development of the AV.

Our aim is to investigate this by speaking to individuals with anorexia nervosa to understand their impression of the links between adverse childhood experiences, AN, and the anorexic voice.

Why is this important to study?

By having a better understanding of peoples experiences we can better understand how to support individuals through to recovery. We hope that the findings from this research can aid the development of effective treatments for individuals diagnosed with anorexia nervosa.

Helpful links

- o <https://www.mind.org.uk/information-support/types-of-mental-health-problems/mental-health-problems-introduction/self-care/>
- o <https://www.beateatingdisorders.org.uk/>
- o <https://www.nhs.uk/conditions/eating-disorders/>

Thank you again for your participation.

Contact Details:

Georgette Morrison (Trainee Clinical Psychologist)
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Appendix M. Cardiff University Ethical approval



psychethics

Tue 15/09/2020 13:46

To: Georgette Morrison

Cc: John Fox; Marc Williams



Dear Georgette,

The Ethics Committee has considered your revised PG project proposal: NEGATIVE CHILDHOOD EXPERIENCES, EMOTIONS AND THE ANOREXIC VOICE (EC.20.08.11.6064R).

The project has been approved.

Please note that if any changes are made to the above project then you must notify the Ethics Committee.

Best wishes,
Adam Hammond

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Please note that I do not expect a response to this email outside of your normal working hours
Nid wyf yn disgwyl ymateb i'r ebost hwn y tu allan i'ch oriau gwaith arferol

Appendix N. Three extracts of transcribed interviews

Mandy

Researcher Lots of people with a diagnosis of anorexia nervosa talk about experiencing an internal voice related to the anorexia – Is this something you have experienced?

Participant Yes. Um, I was aware of the kind of, the concept of an anorexic voice quite early on, um, from reading a book – I can't remember who the doctor was now, but it was a doctor based at the Maudsley Hospital.

Um, and, um, I did actually have an assessment at the Maudsley Hospital when I was about 17. Um, because my GP at the time referred me there. So, that's when I first heard of it.

Um, yes, I can identify with it. So, um, it's kind of, I suppose, um, for me, it's what kind of perpetuated the illness. It kind of reinforced, um, thoughts I had around food and eating and sort of negative self-esteem. Um, in all aspects, not just in relation to sort of body image; in relation to, um, myself as a person, how I came across, um, to other people.

I think, so, yes, I can definitely, um, identify with that.

Researcher Mm, yeah. So, you mentioned a couple of things there about what it was like for you and I wonder if you could tell me more about that? So, what was the experience of having the anorexic voice like for you?

Participant Um, I suppose it – it's, um, it's – it's – it's a bizarre thing in the sense that, in one way, it's quite toxic obviously. It – it – it perpetuates the illness. You get more and more unwell and kind of entrenched in that way of thinking.

But, on the other hand it's a comfort because, if – if, like I did at the time, felt that everything in my life was kind of spiralling out of my control, um, that was something that I could fall back on. And it was quite – it was quite comforting to know that, you know, by listening to that voice, by restricting food, um, then that was something within my control and it – it was, um, yeah, it's – I'd say now that kind of like old habits die hard. It was – it was a comforting thing to always have and then, subsequently in life, if, you know, when I was – so, I was 17/18 when my anorexia first sort of presented, um, but subsequently in my 20s, let's say, if I went through a difficult period in my life, then, not intentionally, inadvertently, I would fall back into those old habits, and – and that – that voice again would be a comforting – a comforting, reassuring, I know I can feel control in this aspect of my life.

Researcher mmm okay.

Participant Mm.

Researcher Can you tell me a bit more about the entrenchment?

Participant Um, I think, for me, um, being anorexic and kind of having – having – leading that way of life, it sort of became a way of life. So, it was kind – I think – I think – um, I don't know what you think about this but I think, for me, and certainly other people that I've met with eating disorders, it becomes more like an obsessive compulsive disorder in a way. Er, because it's like, this is what I do and I can't deviate from that. And, to be honest with you, that continued for many years.

And so then, even loved ones and family, um, kind of they also kind of buy – buy in to that, or, um, you know like – say, my Mum was going to cook a meal, a family meal, um, and so – years ago this would have been. So, say she was cooking a joint with beef; oh no, Melody doesn't eat that kind of thing, so I'll have to make something separate for her.

So, it's – it's um, yeah, I think it becomes very much a way of life. It's an obsessive kind of, um, well it is an obsession with food quite often, I think, for people. Um, but there's no – there's no scope for deviation. Um, I think that that – that was the thing for me that continued for many years, even when I wasn't classed as clinically anorexic, yeah.

Mandy

Researcher Yeah. And, I guess, in, if we are thinking about that – where was the anorexic voice this time? Where does that fit in?

Participant Um, I guess, er, after sort of like the text message and stuff, when I was younger, um, I guess it sort of started off, um, like sort of as a solution, I guess maybe. That it was sort of like, you feel like this? Okay, well, have you thought about like doing this? Or have you thought about like doing this?

Um, and it never felt like it was pushing me too far. It never felt like it was saying anything that was like super out there.

Researcher Yeah.

Participant It, um, it sort of started very, very gradually. Um, and, er, and stuff, so, you know, it – obviously, like it never starts with the most extreme behaviour, but it definitely felt like it was building up, I guess. But it never felt sort of outlandish. It never felt extreme or – or – or wrong or anything.

Um, and I think that also one of the main things that I remember thinking, or that I remember the voice kind of thinking and talking at that point, I still wasn't really differentiating, um, I guess, was more that it was like, if there was ever a time that I was sort of thinking, I'm not quite like sure about this. Like I'm not, you know, am I really sure that I want to do this particular behaviour or this particular action?

Um, it would just be like, it's okay. No one else has to know about it. It's absolutely fine. And, you know, we can do it one time. If you don't like it,

we don't have to do it again. It's, you know, it's absolutely fine. It's going to – but you need to do it.

Researcher Mm.

Participant Um, and er, you know, if you do it then you're just going to feel so much better and, you know, why don't we just try it? And if you try, you know, that sort of – just, I think very gentle like steps, um, at a time where it almost felt like it was sort of just like, it's not that bad. Don't worry about it. It's fine.

That kind of, I guess, almost reassurance and that, if it did feel like something was wrong, or – or not right, um, that really that was something more to be like proud of, because you know, well, if it feels like it's not right, that's probably just because, you know, other people think it's not right. And, if other people think it's not right, they are probably saying that because they can't do it.

But, you know, maybe you can and does that sort of make you, I guess, like special or – um, or, yeah, special in a particular way, I guess.

Researcher Yeah. Yeah, that's interesting. And, can you tell me how that impacted on you as a person?

Participant Yeah. Um, I guess for a long time I didn't really think about it because I was – I was quite young. I don't think I really knew how to process it and I think, yeah, and, as I said, we never talked about it like as a family. Um, which is completely understandable, I mean, you know, um, there's no sort of guide on how to talk about that with your child, who is still very young.

Ellie

Researcher Yeah. And would you be able to describe to me what is helpful and unhelpful about the anorexic voice?

Participant Um, [pause] gosh, helpful is a tough one. I mean, if you were thinking as an anorexic it is helpful to lose weight [laughs] in that sense of, you know, it's the main, um, sort of – it's like the main thing that will beat you round the head when you've not done what you're meant to do as such. It's the – it's the negative reinforcement effectively, to put it in psyche terms of, of why you don't want to gain weight, because you're going to have this thing like screaming at you in your head.

Um, so, you know, I would say it's helpful to lose weight. [laughs] And I wouldn't say it's helpful for much else in that sense. Um, and, I suppose, again, it's helpful to be a distractor, or, you know, in – in the sense of that.

But, mostly the – the voices, from a – from a well person's point of view, the voice is wildly unhelpful, primarily because it is distracting. I think that's the thing that I find most now in my daily life, it's like, you're sitting here trying to write like, you know, a personal statement or something and all you can think of is like, or, all you can feel, because for me it is very sensation-based, it's just like all you can feel is that roll on your stomach that you are just disgusted by. And it's very sensation-based for me.

So, it may not even be a voice, but it is just like that, awful – [laughs] you know, and it's the intensity of it that I think. Because I think everybody has a degree of that, where they're just like, oh, I don't like that bit.

But, I think it's the intensity and the level of distress. So, I think that that's the unhelpful part. It's unhelpful that it takes over your whole mind. It's unhelpful that it reinforces the negative feelings that you have about yourself.

Um, it's just – it's just a horrible thing to have to live with. And I think it's unhelpful that you're having that kind of like war in your head between the well and the unwell parts of your brain. So, it's mostly unhelpful. [laughs]

Researcher Yeah. if you are able to, ask you a little bit more about? So, you mentioned about the war in your head.

Participant Uh huh.

Researcher Can you describe that a little bit more?

Participant Yeah, like, that was just the worst, honestly, it really, from just the disorder point of view, maybe not including the treatment as such. But, um, it – it was just so, oh, it just felt like your head was going to split in two. Because every hour, even if you were sort of half-asleep, you just couldn't get a respite from it.

And it's very much kind of similar to, you know, I've read people's experience of having compulsive thoughts where they just want a break from this, like, it's distressing and it – I think that's – that's the best way to describe it. It's just like you've got one side of your brain going, and the physical sensation as well of, you know, this is disgusting, this is awful and it really does feel like the end of the world, you know. It's – it really is that distressing.

Um, or verging on a panic attack sometimes if you want to, if you've gained weight. Like I remember very vividly in treatment, there was one week when I had decided, right, I'm going to recover, this is – this is my big go at it.

And the first week where I kind of really made a stab at it and I'd put on, like, you know, all the water weight and whatever else that week. And it was just that instant like terror, or panic. I had a full meltdown when I was weighed that week.

But then, instantly, while you are having the meltdown, your brain is going, but you need to do this you are going to die. You know, and then the other thing that my brain – my sort of like well brain would have done, would have sort of chipped in, sort of medical statistics [laughs] at the various times, which was really helpful.

Like, you know, like, if you hit this thing you are like 60% more likely to die, you know, if you hit this time, you know. So, it was kind of almost like, [laughs] to use a Brexit phrase, which is never welcome, you know, like project fear on both sides. Of like one side you are going to be so fat nobody wants to know you, and the other side, you're going to die, you know.

So, it's very – it's very, it's just a horrible thing to have to live with. And it drives you mad itself.

Appendix O. Examples of Theoretical Sampling

Commonalities and gaps identified	How Commonality and gap identified	Potential missing gaps in future data collection	Methods in line with theoretical sampling	Outcome
Participants are completing the Qualtrics form from countries outside of the UK	Supervision Reflective Journal	Participants from countries outside the UK present a potential confidentiality issue. If there is current/immediate risk I am unable to address this e.g. call 999	Discussion with research team. Change to Qualtrics form and exclusion criterion to exclude living outside of the UK	Participants were recruited from the UK only.
First six interviews are mentioning experiencing bullying in relation to the AV	Initial and focus codes Reflective Journal. Memo following early interviews.	Need to strengthen the understanding of this concept and process. Unsure if how the bullying is related to the AV and potentially the self? Does everyone experience bullying or do some have positive relationships with peers?	Added questions into interview schedule exploring relationships with peers in school, including type and how this may have contributed to AV if at all.	Participants spoke more in-depth about experiencing bullying in school and how this impacted on their self confidence and the links between the characteristics of the AV.

Appendix P. Coding examples

Raw Interview extract (<i>Mandy</i>)	Initial Coding	Focus coding	Category	Theoretical concept
<p>Yeah. Um, so, like I said, the thinking became entrenched and it almost became habitual in a way and it felt like I couldn't be free of it. I did feel kind of trapped by it. But, actually, family and friends reinforced that by saying, oh, [Mandy] just doesn't eat that kind of thing. We know you wouldn't have that.</p> <p>So, it kind of leads you on a path that you can't, I said this at the start, but like you can't deviate from. It's ultimately controlling. Um, and, as I say, in some ways that was comforting. And, certainly, at times in my life where things weren't going so well, it was</p>	<p>Becoming entrenched; Becoming a habit</p> <p>Describing being unable to escape voice</p> <p>Explaining how others reinforcing voice rules Not eating certain things Others knowing eating habits</p> <p>Voice leading down a path Reiterating</p> <p>Being unable to deviate from AV Describing controlling AV</p> <p>Describing voice as comforting</p> <p>Experiencing adversity in life</p> <p>Describing voice as comforting</p>	<p>Experiencing being entrenched in AN</p> <p>Expressing rules of AV</p> <p>Seeing voice as controlling</p> <p>Seeing voice as comforting</p> <p>Seeing voice as reliable</p> <p>Seeing voice as comforting</p>	<p>Voice is all consuming</p> <p>Predictability of voice</p> <p>Voice is all consuming</p> <p>Comforting Voice</p>	<p>Feeling Trapped</p> <p>Anorexic Voice 'You're safe with me'</p> <p>Feeling trapped</p> <p>Anorexic Voice 'You're safe with me'</p>

<p>really comforting to have that to fall back on.</p>	<p>Falling back on voice</p>			
<p>Raw Interview extract (Alice)</p>	<p>Initial Coding</p>	<p>Focus coding</p>	<p>Category</p>	<p>Theoretical concept</p>
<p>I don't know you sort of 'you don't need that' 'you don't deserve that' 'its your fault' you know always kind of the blaming yourself type situation kind of the more I think about it the more a lot of the rhetoric comes from that voice its perhaps like to the things my parents have said to me in the past and things that Ive experienced in the past and I think yeah particularly but its changed because a lot of that negativity but then when you abide by what it says there's that "oh you've done a really good job at this you've only had X calories today and you've done X steps well done" there's that kind of other reinforcement to when you abide by its rules its so warped I guess</p>	<p>Voice telling not needing Voice telling not deserving Describing blaming self Thinking about voice Explaining voice linking to parents comments Describing changing voice Voice becoming negative Describing abiding by voice Experiencing voice praising Describing rules of voice Explaining voice reinforcing Describing abiding by voices rules</p>	<p>Negative comments from voice Expressing self-blame Voice mimicking abuse Expressing changing voice Expressing voice giving praise Following voices rules</p>	<p>Disobeying the Voice Self-identity Disobeying the Voice Obeying the Voice</p>	<p>Conditional Safety Internal unsafety Conditional safety Conditional safety</p>

Raw Interview extract (Hayley)	Initial Coding	Focus coding	Category	Theoretical concept
<p><i>Participant</i> - being bullied in high school it was just bitchy girls so I was always just left out I think also I find it really hard to maintain relationships so I think that didn't help in the bullying because once I'd be friends with someone and they would use all my insecurities against me cos I was like really vulnerable and an easy target</p> <p><i>Researcher</i> – Can you give me some examples?</p>	<p>Experiencing bullying by peers Being left out Experiencing difficulty maintaining relationships Worsening bullying Experiencing insecurities being used against Feeling vulnerable Describing self as easy target</p>	<p>Experiencing Emotional bullying</p> <p>Bullying impacting self-identity</p>	<p>Bullying</p> <p>Self-identity</p>	<p>Relational Unsafety</p> <p>Internal unsafety</p>
<p><i>Participant</i> – they'd all laugh like there would be a group of boys and they'd all laugh at me and say oh you've got bucked teeth then at high school there'd be a group of girls in the canteen and they'd all turn round and start laughing and sniggering and stuff then like I've had people have a vote about whether I should be friends with them or not stuff like that</p> <p><i>Researcher</i> – Okay</p>	<p>Describing characteristics of bullies Experiencing bullies laughing Experiencing bullies negative commenting on appearance Experiencing bullies laughing Experiencing bullies voting against them</p>	<p>Characteristics of bully</p> <p>Experiencing Emotional bullying</p> <p>Experiencing Appearance bullying</p> <p>Experiencing Emotional bullying</p>	<p>Bullying</p>	<p>Relational Unsafety</p>

<p><i>Participant</i> – I just felt really isolated like and lonely at high school [pause]</p>	<p>Feeling isolated at school; Feeling lonely at school</p>	<p>Experiencing isolation and loneliness</p>	<p>Loneliness</p>	<p>Internal Unsafety</p>
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Appendix Q. Memo examples

Interview Memo – Rose, *December 2020*

Rose spoke about experiencing several 'difficulties' (Rose was cautious to use trauma because of comparing to others who might be worse) in her childhood – CTES – and more recently. Rose described physical and emotional abuse; bullying; noted sexual abuse; divorce; moving; close family members being chronically ill and dying. It was very hard to interview, transcribe and repeatedly listen to. I'm aware that her recent bereavement is very similar to my own so I am being continuously reflective and will discuss in supervision as to 'bracket' off my own feelings. She spoke eloquently and was able to describe her experiences in quite a lot of detail. Her childhood appeared very chaotic and unstable.

There appears to be a link between experiencing traumas/disruptions in childhood to the AV. Almost like the AV is mimicking some of the things she experienced. For example, 'you're worthless you can't even get this right'. This was highlighted in previous interviews – (Participant 2 and 3). Rose said that it doesn't link back to one single event – does this suggest the AV is the product of multiple traumas in childhood? Or a general sense of things not being okay?

There appear to be two parts to the AV – 'a guiding light' and 'punishment'. She described the AV as always being present yet it doesn't do this all of the time. It changes in volume? Intensity? Tone? Rose spoke about it being 'impossible to argue with' because of the feelings it invoked in her – 'guilt' 'disgust' 'very strong feelings of anxiety'. As well as 'it told me it told me what I needed to do to feel good and I did it' to be 'comfort zone' 'safety security' by the AV. It seems that to avoid horrible emotions Rose follows whatever the AV says then also to feel comfort (which is missing?) she also follows the AV. There is also a dichotomy between the AV making her feel good about herself and feel bad about herself. When she follows it, it still negatively comments BUT it doesn't make her feel bad – it makes her feel good about herself. Successful maybe?

The emotions the AV makes Rose feel in the bad times are like those she described in childhood. This could give further evidence for the linking. Maybe its not so much a memory or flashback but a feelings associated with that time that the AV taps into?

Im noting the impact on her life (and the others). Their world completely revolves around the AN – all of these rules restricting everything 'you can't have yogurt and cheese on the same day or like there's like those weird kind of food rules like those rules that are in place that you can't Y after like 7:00 PM'

Rose mentioned perfectionism its ‘always in the background’. The AV makes it ‘pipe up’ when she doesn’t reach a target (potentially set by the AV?). Such interesting nuance! It gave the sense that perfectionism is something Rose has used when things weren’t stable in childhood then has been transferred? Used by? Attributed to? The AV.

Im going to have a spare half hour for myself following interviews. They are becoming quite emotionally draining and I don’t want this to affect any data. Keeping them on days where I am not in placement is helpful.

Conceptual category development memo – *Overwhelming Emotions*

This category has emerged after making constant comparisons between all the aspects of the data including codes, memos, reflective journal, and categories etc. What emerged is how emotions are experienced by the participants in relation to their external world. It was important that this category stayed grounded in the data, as there may have been some assumption that there would be difficulty with emotions. However, using the reflective journal, memos, supervision and peer reflecting team, there were descriptions of experiencing emotions as overwhelming across the data. These were reinforced by focused codes created – ‘emotions are too big’, ‘never-ending emotions’ ‘unable to cope with emotions’ ‘viscera feelings’ ‘emotions taking over’. These were all describing emotions that were experienced when discussing childhood experiences.

The concept is described by Alice and Sarah below:

Alice “my dad used to do when we were growing up was he would sit me and my sister down when we were definitely too young for this and he would tell us about terrible his life was and like how horrible my mum was and all these deep emotions and stuff that was like way too much because we were literally like way too young em so I guess I feel like emotions are like too big or like I don’t know”

Sarah “I think it just ties into the fact that feelings were quite scary to me and I think sometimes I didn’t like trust myself or worry yeah I think just because like I would feel things so deeply I then it would just kind of like I didn’t trust that like my body would be able to calm itself down I think I kind of just thought that it would stay at that point”

Alice refers to the emotional abuse she experienced at home. Sarah was discussing her own emotions following discussing her family dynamics. . Its not just that emotions themselves are overwhelming but there is something about how the participants feel unable to trust themselves to cope with them. Experiencing emotions appear to be related to other internal concepts such as feeling out of control (possible link to feeling out of control). Experiencing emotions as overwhelming appears to be an aspect of feeling unsafe within themselves as they want to rid themselves of these emotions – they feel unmanageable /uncontrollable ?‘internal unsafety’? Alice described emotions being ‘too big’ which fits with ideas of emotional dysregulation were people find it hard to manage their emotional experiences. This is reflected by Sarah but it also draws a bit on DBT ideas of an invalidating environment.

A relational process is appearing in this model. They both refer not only to their own emotions but the situation around them at home where they were experiencing abuse or chaotic environments (Potential link to feeling unsafe at home).

The Av was discussed as being helpful in relation to overwhelming emotions. The AV appeared to give participants a way to manage their emotions by supressing or numbing them though engaging with AN behviours. This was described as being comforting and safe (Link to AV providing safety)

Appendix R. Interview schedule

Before commencing the interview, revisit confidentiality and ensure the consent form is signed and the participant has read the participant information sheet. Participants are reminded that the interview is being recorded and transcribed and that they have the right to withdraw.

Introduction:

At the start of the interview, begin with: Thank you for taking part in this interview. The questions will be looking at your personal experiences and understanding of the anorexic voice, your childhood, and your emotions. I understand that these topics can be potentially distressing such as negative childhood experiences. Your participation is voluntary, and you can ask to stop the interview at any time. Likewise, if you disclose information during conversations with the researcher indicating that you or someone else is currently at immediate risk, e.g. current abuse, the researcher will need to act. At this point we will stop the interview and I will inform you of what the next steps will be.

There will be time at the end of the interview to ask any questions.

1. Lots of people with a diagnosis of anorexia nervosa talk about experiencing an internal voice related to the anorexia –
Is this something you have experienced?
2. Can you tell me more about what your experience of the anorexic voice has been?
 - a. What is this like for you?
 - b. What does it say to you?
 - c. Does it remind you of anyone?
 - d. Does it comment on any aspects of your life?
3. Can you tell me about what life was like for you when you were growing up?
 - a. Who was at home?
 - b. Can you describe your relationship with...?
 - c. Can you give me an example of...?
 - d. How has that impacted on you as a person?
 - e. How has this impacted your experience of the voice?
4. Could you please tell me a bit more about what school was like for you?
 - a. What did you like/dislike?
 - b. How long were you at school?
 - c. Who do you remember from school?
 - d. How did you get on with peers at school?
5. Could you please tell me about any negative events you might have experienced?
6. Could you described if the anorexic voice impacted on your childhood in any way? If so, how?

- a. Could you tell me more about what life was like for you at the time?
- 7. Could you please tell me about how people in your family experience emotions?
 - a. What do you think about that?
 - b. How has that impacted on you as a person?
 - c. How, if at all, has this impacted on your experiences of emotions?
- 8. Would you be able to tell me about how you experience emotions?
 - a. How do you know you are feeling X?
 - b. Who would you turn to when you were upset?
 - c. How would you let others know how you were feeling?
 - d. What do you do when you are feeling X?
- 9. How does this fit with your eating disorder?
- 10. Would you be able to tell me about any important people in the journey of your anorexia?
 - a. Could you tell me a bit more about how this was experienced as positive/negative?
- 11. In your opinion, what events/influences might have precipitated the onset of your disorder?
- 12. Would you be able to describe to me what is helpful/unhelpful about the anorexic voice?
- 13. Is there something that you might not have thought about before that occurred to you during this interview?
- 14. Is there something else you think I should know that maybe I haven't asked about?
- 15. Do you have any questions for me?

Close, thank for time and move to debrief.

General Prompts

<p><u>So</u> you've said X and Y – when did your eating disorder start?</p> <p>When we talk about X what comes to mind?</p> <p>Isn't that interesting, what was that like for you?</p> <p>How did that feel?</p> <p>That sound like it's a particularly important (experience/memory/issue etc), I'd like to hear a bit more about that</p> <p>What private thoughts and feelings did you have after this experience?</p> <p>What did you not want anybody else to know?</p> <p>What were you feeling then/now?</p> <p>What is it you are feeling?</p> <p>What is the <u>etc</u>.g. missing ingredient]</p>	<p>In what way?</p> <p>Can you tell me more?</p> <p>What did you do then?</p> <p>Can you explain a bit more about that?"</p> <p>can you explain what you mean?</p> <p>Is there anything else about...?</p> <p>Are you able to give me an example?</p> <p>what thoughts were you having then/now?</p> <p>What feelings are attached to these thoughts?</p> <p>Can you tell me more about those feelings of <u>of</u></p> <p>What are those feelings of <u>like</u>?</p> <p>Can you tell me in your own words?</p>
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Appendix S. Reflective journal excerpts

Excerpt one: *Supervision with Research Supervisors before interviews started*

“I felt very nervous for this meeting. I’m worried that I am going to be doing everything wrong or they’ll see I’m a fraud – thank you imposter syndrome! It was helpful to have John and Marc’s thoughts and amendments on the Qualtrics survey. They were kind and acknowledge that it was almost ready.

John and Marc spoke about the likelihood of participants getting angry with me during interviews. They wanted me to think about how that would affect me? What would I do? What if they complain to the university or to them? I hadn’t considered this before, so it took me a bit by surprise. Better now than later. We have agreed to exchange numbers in case anything does happen and we need to get in contact quicker than email.

We had an interesting discussion about BMI choosing an inclusion criterion of 14 or 15. John explained that at this BMI a participant should be well enough to cognitively engage. He described the ‘Goldilocks’ window. This led us on to discuss risk and if someone is still very unwell with their eating disorder what would we do? I feel very frustrated at having to recruit through social media as we don’t have the system to support us e.g. nurses care co-ordinators.

Im excited to get started with the interviews. Today felt a bit rushed, I wonder if a full hour more regularly would be helpful.”

Excerpt two: *Following first interview*

“It was so much harder than I expected trying to turn off my clinician brain and be a researcher. I found myself summarising and validating throughout the interview. I wonder if it will be helpful to conduct the interviews on a day that I am not in placement. This might help separate these different roles.

Transcribing this interview was a helpful way of reflecting on this and recognising when I made assumptions about what she was meaning from the data. Im going to have to get used to hearing myself back. I need to stick to my interview questions and reframe from putting my own judgement onto the experience. This will help me to hold in mind that it is not a clinical conversation or interview, it is research. In research there is no ‘sounds like’. Channel Charmaz and ‘bracket’ it off. Any assumptions I make will make it harder to analyse and stay grounded to the theory”

Excerpt three: *Following the fourth interview*

“I am finding it very difficult to listen to participants recalling abuse in the context of research. Some of these women have had such horrible experiences. I am managing to control my urge to empathise and validate whilst remaining warm. I am able to bracket off my clinical brain a lot easier now but Im still left thinking about the women afterwards. Im blown away by the openness from the women I have interviewed so far. I wonder what it is that allows them to talk so freely about their experiences.

I am noting that sexual abuse has come up a few times and each time the women have said they don't want to talk about it any further. I am mindful of risk so have reminded them of confidentiality. I wonder if this has shut them down? I do give them opportunity to share by using open questions.. Its an interesting point and I wonder if any other women will decide to share their experience of sexual abuse. I will discuss it with John and Marc during supervision to see what their thoughts are.

How does sexual abuse fit in? Why is this harder to talk about than other forms of abuse? How does this experience link to the AV?”

Excerpt four: *Peer review discussion*

“I feel so much better after discussing my coding with peers. It was useful reminding myself of the initial coding process - to remain grounded to what the line is saying. I feel like Ive run out of gerunds! Someone pointed out that I sometimes tend to use ‘psychology’ language – it might be helpful to try to tease out the words of the participant to reflect the code. I am mindful that I am not imposing my clinical knowledge onto the data set.

This was followed by supervision with John and Marc, during which data and codes were explored. I always feel nervous showing them my coding! Although Marc and I have spent time verifying coding previously by each coding a section and comparing. John suggested that I can whittle my focus codes down a bit more.

Whilst this is an exciting next step I need to ensure I use constant comparison during the development of focused codes to ensure they are grounded within the data and I have sufficient quotes to back up any links I made.”