The Development and Assessment of a Scale to Measure the Experience of an Anorexic Voice in Anorexia Nervosa

A thesis submitted to The University of Manchester for the degree of
Doctor of Clinical Psychology
in the Faculty of Biology, Medicine and Health

2016

Dr Kay Gant
School of Health Sciences
Division of Psychology and Mental Health
# List of contents

List of Figures .................................................................................................................. 6  
List of Tables .................................................................................................................... 7  
List of Appendices .......................................................................................................... 8  
Thesis Abstract ................................................................................................................ 9  
Declaration ....................................................................................................................... 10  
Copyright Statement ....................................................................................................... 10  
Acknowledgements ......................................................................................................... 11  
About the author ............................................................................................................. 12  
Overview of thesis .......................................................................................................... 13  
Paper 1. ............................................................................................................................. 15  
Title Page ......................................................................................................................... 15  
Abstract ............................................................................................................................ 16  
  Keywords ......................................................................................................................... 17  
Highlights .......................................................................................................................... 17  
Introduction ..................................................................................................................... 18  
  The development and function of inner speech ............................................................. 19  
  Inner speech and psychological disorder ...................................................................... 20  
  Inner speech as a mechanism to recovery .................................................................... 21  
Objectives ......................................................................................................................... 23  
Method ............................................................................................................................... 23  
  Eligibility criteria ........................................................................................................... 23  
  Search strategy ............................................................................................................... 24  
  Quality assessment ....................................................................................................... 29  
  Data extraction and synthesis ...................................................................................... 30  
Results ............................................................................................................................... 31  
  Theme 1. Withdrawing to an inner world .................................................................... 31  
  Theme 2: A fragmented and conflicted self ................................................................. 33  
  Theme 3. Re-connecting with the world ...................................................................... 35  
Discussion ......................................................................................................................... 40  
Summary of findings ....................................................................................................... 40
Similarities between IS and auditory verbal hallucinations .............................................. 43
Implications for clinical practice ......................................................................................... 44
Strengths and Limitations ................................................................................................. 44
Directions for future research ........................................................................................... 45
Conclusions ......................................................................................................................... 46
Funding Sources .................................................................................................................. 47
References ............................................................................................................................. 48
Author disclosure statements .............................................................................................. 60

Paper 2. ................................................................................................................................. 61

Cover Page .............................................................................................................................. 62
Title Page ............................................................................................................................... 63
Abstract ................................................................................................................................. 64
Keywords ................................................................................................................................. 65
Introduction ............................................................................................................................. 66

Criticisms of the AV concept ............................................................................................... 67
Objectives ............................................................................................................................... 67
Method .................................................................................................................................. 68

Ethical approval ........................................................................................................................ 68
Stage 1: Scale Development ................................................................................................. 69

Item generation ...................................................................................................................... 69

Face validity, content validity and scale refinement .............................................................. 69
Participants .............................................................................................................................. 69

Cognitive interviews .............................................................................................................. 70

Results .................................................................................................................................. 70

Stage 2 – Psychometric analysis .......................................................................................... 71

Sample .................................................................................................................................. 71

Measures ................................................................................................................................. 72

Procedure ................................................................................................................................. 73

Data analysis ........................................................................................................................... 74

Exploratory factor analysis ................................................................................................. 74

Construct Validity ................................................................................................................... 74
Sensitivity analyses .................................................. 75
Results ........................................................................ 75
Sample characteristics .............................................. 75
Exploratory Factor analysis ........................................ 75
Interpreting factors .................................................... 76
Reliability ..................................................................... 77
Construct validity ....................................................... 77
Associations between EAVE-Q domains and clinical outcomes .................................................................. 77
Sensitivity analyses .................................................... 78
Discussion .................................................................... 79
Limitations ................................................................. 82
Clinical Implications .................................................. 82
Implications for Future Research ................................ 82
Conclusions .................................................................. 83
Acknowledgments ...................................................... 84
References .................................................................... 85
Paper 3. ...................................................................... 102
1. Introduction ................................................................ 103
2. A diagnostic approach ............................................ 103
3. Thematic synthesis (Paper 1) ..................................... 104
   3.1 Justification for a qualitative review ......................... 104
   3.2 The rationale for thematic synthesis ......................... 104
   3.3. Limitations of thematic synthesis ............................. 105
   3.4 Limitations of findings ........................................... 105
4. Experience of an Anorexic VoicE (EAVE) Study (Paper 2) ................................................................. 106
   4.1 Measures ............................................................ 106
   4.2 Self-report data and online data collection ................ 108
   4.3 Sample size .......................................................... 109
   4.4 Validity and reliability of the EAVE-Q ......................... 110
   4.5 Multiple testing ....................................................... 111
5. Implications for theory, research and clinical practice ................................................................. 111
5.1 The role of inner speech in psychological distress .................................................. 111
5.2 The validity of the AV .................................................................................................. 112
5.3 Is the AV a form of AVH? ............................................................................................ 113
5.4 Clinical implications: Inner speech as a route to recovery ........................................ 113
5.5. Future research .......................................................................................................... 114
5.6 Implications for personal practice ................................................................................ 114
6. Conclusions ................................................................................................................... 115
References ........................................................................................................................ 116

**Word Count (excluding tables, references and appendices): 21730**
List of Figures

Paper 1. Thematic Synthesis

Figure 1. Flow of studies through systematic review.................................................................56
Figure 2. Example of data coding and analysis........................................................................57
Figure 3. Descriptive and analytical themes generated through thematic synthesis.............58
Figure captions.......................................................................................................................59

Paper 2. The Experience of an Anorexic Voice (EAVE) Study

Figure 1. Participant flow........................................................................................................99
Figure 2. Comparison of the parallel analysis 95th percentile eigenvalues and the raw data
eigenvalues............................................................................................................................100
Figure captions.....................................................................................................................101
List of Tables

**Paper 1. Thematic Synthesis**

Table 1. Details of databases searched........................................................................................................25
Table 2. Summary of reviewed studies...........................................................................................................27
Table 3. Quality assessment of eligible studies...............................................................................................30
Table 4. Cross-comparison of articles contributing to each theme.................................................................38

**Paper 2.**

Table 1. Cognitive interview sample characteristics.......................................................................................90
Table 2. EAVE-Q Items (n = 77).......................................................................................................................91
Table 3. Sample characteristics (n = 148)..........................................................................................................92
Table 4. Promax pattern matrix for the five factor solution with 18 items (n = 148).........................................93
Table 5. Reliability coefficients of the scales derived from FA........................................................................94
Table 6. Factor correlation matrix....................................................................................................................95
Table 7. Correlations between EAVE-Q domains and clinical outcome measures.........................................96
Table 8. Percentage of variance in clinical outcome measures explained by EAVE-Q domain scores.................................................................................................................................................97
Table 9. Comparison of EAVE-Q scores between ‘clinical’ and a ‘subthreshold’ group.................................98
List of Appendices

Appendix 1. Author guidelines for Clinical Psychology Review ......................................................... 121
Appendix 2. Quality assessment checklist for qualitative research .................................................. 132
Appendix 3. Advances in Eating Disorders: Theory, Research and Practice – Guidelines for authors .................................................................................................................................................. 133
Appendix 4. Ethical approval for Stage 1 of the EAVE Study ............................................................. 138
Appendix 5. Ethical approval for Stage 2 of the EAVE Study ............................................................. 140
Appendix 6. Standardised protocol for cognitive interviews ................................................................. 148
Appendix 7. The EAVE-Q (Experience of an Anorexic Voice Questionnaire) ..................................... 149
Appendix 8. Background questionnaire ................................................................................................ 153
Appendix 9. The Eating Disorders Examination Questionnaire (EDE-Q) ............................................ 154
Appendix 10. The Structured Clinical Interview for Diagnosis - Module I ........................................ 157
Appendix 11. The Depression Anxiety Stress Scale (DASS-21) .......................................................... 160
Appendix 12. The World Health Organisation Quality of Life Scale (WHOQOL-BREF) ..................... 161
Appendix 13. EAVE study flyer ........................................................................................................... 164
Appendix 14. The Final EAVE-Q ......................................................................................................... 165
Thesis Abstract

The University of Manchester
Dr Kay Gant
Doctor of Clinical Psychology

The Development and Assessment of a Scale to Measure the Experience of an Anorexic Voice in Anorexia Nervosa

This thesis sought to develop and assess a novel scale to measure the experience of an anorexic voice in anorexia nervosa. It consists of three standalone papers. Papers one and two have been prepared for submission to two separate journals relevant to the methodology and research area for each, and comply with the journal guidelines. Paper one is a thematic synthesis of qualitative literature exploring “inner speech” for individuals with a diagnosed psychological disorder. Following a standardised procedure for thematic synthesis, six databases were searched and 10 studies were included. In total, three analytical themes were identified within the data: 1) Withdrawing to an inner world, 2) A fragmented and conflicted self and 3) Re-connecting with the outside world. The results found several similarities regarding the nature, function and negative consequences of engaging with critical inner dialogues across clinical samples. IS as both a coping mechanism and a maintaining factor of psychological distress was a key finding. The results indicated therapeutic approaches facilitating acceptance of internal experiences and disengagement from critical internal dialogues may be helpful.

Paper two is a two-stage quantitative study that describes the development and assessment of a novel scale, the Experience of an Anorexic VoicE Questionnaire (EAVE-Q). Using data collected in an earlier qualitative study, Stage 1 generated scale items and tested for face and content validity using cognitive interviews with seven individuals with a diagnosis of anorexia nervosa. In Stage 2, 148 individuals with a diagnosis of anorexia nervosa were recruited from mental health services, eating disorder charities, the community and online to complete the EAVE-Q and measures of eating disorder symptoms, mood and quality of life. The dimensionality of the scale was assessed using principle axis factoring and associations between the EAVE-Q domains and clinical outcomes were evaluated. Factor analysis derived an 18 item scale with five domains. Two domains related to negative consequences of the AV, two to positive functions and one to the externalisation of the AV from the self. There were significant associations between individual EAVE-Q domains and eating disorder symptoms, mood and quality of life. The results highlighted the value in further research to refine the EAVE-Q, and to use this in future research to assess if changes in AV experiences are associated with clinical change over time.

Paper three is a critical appraisal of this research. It includes reflections on the research process, discussion of the methodological limitations, and consideration of the implications of the findings for existing theory, future research and clinical practice.
Declaration

This thesis is the work of the author and is substantially different from any work that has been submitted in support of an application for another degree or qualification at this or any other university or other institute of learning. Part of this thesis has been completed using data collected in a previous qualitative study submitted for the degree of MSc in Clinical & Health Psychology in the Faculty of Medical & Human Sciences at the University of Manchester. Paper two, the empirical study, used this data to generate items for the EAVE-Q scale, using the exact wording taken from transcripts of the original interviews where appropriate. This was to ensure face validity of the EAVE-Q scale, and that it accurately captured the experiences of individuals for whom the scale was intended.

Copyright Statement
The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the “Copyright”) and s/he has given The University of Manchester certain rights to use such Copyright, including for administrative purposes.

Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made only in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

The ownership of certain Copyright, patents, designs, trademarks and other intellectual property (the “Intellectual Property”) and any reproductions of copyright works in the thesis, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (see http://documents.manchester.ac.uk/display.aspx?DocID=24420), in any relevant Thesis restriction declarations deposited in the University Library, The University Library’s regulations (see http://www.library.manchester.ac.uk/about/regulations/) and in The University’s policy on Presentation of Theses.

Acknowledgements
Firstly, I would like to thank Dr Stephanie Tierney, Dr Filippo Varese, Dr John Fox and Professor Gillian Haddock for all of their support, advice and unwavering encouragement throughout this thesis. I would especially like to thank them for the amount of time and patience they have given me as my supervisors, particularly in my sprint to the finish.

Thank you to all of the NHS services, charitable organisations and individuals working tirelessly to promote eating disorders research for all their help and invaluable support with recruitment. I would like to mention the contribution of Dr Saeideh Saeidi and Dr Matthew Pugh, who helped significantly with recruitment for the empirical study, and who took the time to share their ideas, experiences and challenges regarding research in this area. Thank you also to everyone who helped to disseminate the results of the EAVE-Q study beyond the world of research to services users, families, health professionals and the wider society. I am very grateful to everyone who took the time to participate in this research, without whom none of this would have been possible.
Kay Gant graduated from Lancaster University with a 1st Class BSc Honours degree in Psychology in 2004. After spending some time working in voluntary and NHS mental health services, she studied for a PhD in mental health research at Lancaster University between November 2009 and April 2014. During this time, the author was also working full-time as a research assistant on a treatment development study evaluating a time-limited psychological intervention for anxiety in bipolar disorder. The author has been studying for the Doctorate in Clinical Psychology at the University of Manchester since October 2013.
Anorexia nervosa (AN) is a severe and enduring condition effecting individuals, their families and the wider society (Beat, 2015). AN is associated with other psychological and physical complications such as depression and osteoporosis (National Institute for Clinical Excellence, 2004), and mortality rates are up to 10 times higher than the general population (Herzog et al., 2000; Morris, 2008). A recent report estimated there are approximately 6,819 people suffering with AN in the UK currently (Beat, 2015), with poor outcomes reported for many people and less than half treated making a full recovery (Steinhausen, 2002). A recent review found existing psychological treatments for AN including cognitive behavioural therapy, interpersonal therapy and family therapy were no more effective than interventions such as dietary counselling and non-specific support from a health professional (Galsworthy-Francis & Allan, 2014). The lack of research exploring novel treatment strategies in this area has been highlighted elsewhere (Lipsman, Woodside & Lozano, 2014). This may link to the observation that our understanding of the psychological mechanisms underlying AN is still relatively limited (Cooper, 2005; Fox & Power, 2009), and research is required to address this.

Previous qualitative research has highlighted a potentially key psychological component which may drive weight-related attitudes and weight management behaviour in AN, ‘the anorexic voice’ (AV; Higbed & Fox, 2010; Tierney & Fox, 2010). Defined as a form of inner speech (IS) specific to AN, the AV is a critical inner voice representing an internal dialogue with parts of the self (Hendricks, 2003; Williams & Reid, 2012). It has been hypothesised that the AV may be important in the development and maintenance of AN, motivating individuals to engage in unhealthy weight control practices (Fathallah, 2006; Hendricks, 2003; Shelley, 1997).

The current thesis presents a systematic review of the role of IS in psychological disorders (Paper 1) and an empirical study (Paper 2) developing a novel scale to measure the experience of an AV in AN. The focus of this research is timely and provides an important and novel contribution to the literature. Paper 3 is a critical appraisal of this research. It considers methodological issues for each paper in turn, before discussing their results together to draw conclusions about the implications for theory, future research and clinical practice.

---

1 The bibliography for this introduction is included in the reference list for Paper 3.
Paper 1.

The role of inner speech in psychological disorder and recovery – A thematic synthesis of qualitative research

Written in accordance with author guidelines for 'Clinical Psychology Review’ (see Appendix 1)

Word Count (excluding tables and references): 8645
Pages (including references and tabular material): 39
The role of inner speech in psychological disorder and recovery – A thematic synthesis of qualitative research

Dr Kay Gant\textsuperscript{a}, Dr John Fox\textsuperscript{b}, Dr Filippo Varese\textsuperscript{c}, Professor Gillian Haddock\textsuperscript{d}, Dr Stephanie Tierney\textsuperscript{e}

\textsuperscript{a}Corresponding author: Dr Kay Gant, Trainee Clinical Psychologist, Division of Psychology and Mental Health, Second Floor, Clinical Psychology Department, Zochonis Building, University of Manchester, Brunswick Street, Manchester, M13 9PT.
Email: kay.hampshire@postgrad.manchester.ac.uk. Telephone: +44 07540294383. Fax: +44 0161 3060406.

Author details:
\textsuperscript{a} Trainee Clinical Psychologist, Division of Psychology and Mental Health, University of Manchester and Manchester Mental Health and Social Care Trust. Email: kay.hampshire@postgrad.manchester.ac.uk.
\textsuperscript{b} Consultant Clinical Psychologist, Barnet, Enfield and Haringey NHS Trust. Email: johnfoxresearch@gmail.com.
\textsuperscript{c} Lecturer in Clinical Psychology, Division of Psychology and Mental Health, University of Manchester. Email: filippo.varese@manchester.ac.uk.
\textsuperscript{d} Professor of Clinical Psychology, Division of Psychology and Mental Health, University of Manchester. Email: gillian.haddock@manchester.ac.uk.
\textsuperscript{e} Senior Research Fellow, Royal College of Nursing Research Institute, University of Warwick. Email: stephanie.tierney@warwick.ac.uk.

Abstract
Problematic inner speech (IS) features prominently in models of psychological disorder, yet qualitative research has been largely neglected in the existing literature exploring the role of IS in the development, maintenance and recovery from psychological disorders. This review used thematic synthesis to explore the experience of IS from the perspectives of those living with psychological disorders. Six electronic databases were searched, identifying 3036 records. Quantitative research, articles without clear definitions of IS and studies reporting views of carers and health professionals were excluded, leaving 10 papers for synthesis. Relevant articles described IS from the perspective of people diagnosed with eating disorders, post-traumatic stress disorder, psychosis and schizophrenia. Data extraction identified all text presented in the ‘results’ and ‘discussion’ sections of relevant articles. Extracted text was subject to line by line coding, codes were organised into descriptive themes and three analytical themes identified: 1) Withdrawing to an inner world, 2) A fragmented and conflicted self, 3) Re-connecting with the outside world. IS as both a coping mechanism and a maintaining factor of psychological distress was a key finding. This thematic synthesis provides new insights into the transdiagnostic role of IS in psychological disorders and has implications for research and clinical practice.

Keywords
Thematic synthesis, psychological disorder, inner speech

Highlights
• Qualitative accounts of inner speech in psychological disorder have been neglected
• We conducted a thematic synthesis to explore subjective experiences of inner speech
• Negative inner dialogues consumed people and maintained psychological distress
• Recovery involved ‘letting go’ and building more helpful inner narratives
• Future research should explore if the findings apply to all psychological disorders

Introduction
Inner speech (IS), also referred to as ‘silent speech’, ‘self-talk’, the ‘inner voice’, and ‘inner dialogue’, amongst other terms, is subjectively experienced as speaking to ourselves without sound (Hurlbert et al., 2013). IS is implicated in a wide range of cognitive processes, including memory, language acquisition, cognitive development, problem solving, creativity and self-regulation (Baddeley, Gathercole & Papagno, 1998; Ehrich, 2006; Morin, 2009; Alderson-Day & Fernyhough, 2015). There is evidence that we spend between 26% and 75% of our time engaged in IS (Heavey & Hurlburt, 2008; Klinger & Cox, 1987-1988), which exceeds time spent on other internal experiences such as feelings and imagery (Heavey & Hurlburt, 2008). Whilst there is a large body of research exploring the function, experience and phenomenology of IS (for a review see Perrone-Bertolotti, Rapin, Lachaux, Baciu & Loevenbruck, 2014), there is little consensus regarding what ‘counts’ as IS, and why it is that we spend so much of our time silently speaking to ourselves. However, consistent across all definitions is that IS is a silent expression of speech orientated to the self, with its function serving only the individual (de Guerrero, 2005).

**The development and function of inner speech**

Vygotsky (1934) characterised IS as a core cognitive developmental process occurring in the first five years of life, where we progress from taking cues and direction from others through a collaborative social dialogue, to engaging in ‘private speech’ - talking to ourselves out loud - until finally we internalise this as an inner dialogue which regulates our cognitions and behaviour. IS is not thought to be simply overt speech in silent form, but qualitatively different and syntactically simplified (Vygotsky, 1934; Fernyhough, 2004). Fernyhough (2004) distinguished between expanded and condensed IS, with expanded IS retaining the dialogical quality of spoken language such as full sentences and turn taking, whilst condensed IS is an abbreviated inner dialogue, thinking in individual words, utterances and meanings, where the language we use to represent thoughts changes but the meaning remains the same. Expanded IS is hypothesised to occur at times of increased stress or cognitive load (Fernyhough, 2004; Perrone-Bertolotti et al., 2014), where more in depth thought is required.

There is a debate within the literature regarding the specific nature and function of IS. One dominant theory proposes its primary function is to make conscious thought possible (e.g. Bermudez, 2003; Carruthers, 1996; Clark, 1998; Jackendoff, 1996, 2012; Prinz, 2011, 2012). Specifically, that we put our thoughts into a verbal format so we can then examine them, allowing us to think
reflexively. This position views conscious thought as the unique function of IS because phonological representations allow for a greater range of thinking than internal representations such as imagery (Jackendoff, 1996, 2012; Prinz, 2011, 2012). However, this theory has been criticised because thought does not always occur in the form of words or language, as with imagery and unsymbolised thinking (Heavey & Hurlburt, 2008), and this theory does not explain how language makes thoughts conscious (for a critique see Martinez-Manrique & Vicente, 2015).

An alternative position rooted in Vygotskyan theory (e.g. Fernyhough, 2009; de Guerrero, 2005; Hurlburt et al., 2013; Martinez-Manrique & Vicente, 2015) views IS as a linguistic activity, with the dialogical nature of IS emphasising this as an active process (Hurlburt et al., 2013; Martinez-Manrique & Vicente, 2015). This position states the function of IS is comparable to spoken language, being used to communicate, evaluate, express, focus attention, guide action, rehearse, memorise, plan, comment and so on. There is evidence supporting the importance of the dialogical nature of IS. Senay, Albaraccin & Noguchi (2010) found that ability to solve anagrams improved when participants engaged in questioning self-talk rather than silent self-statements. Kross et al. (2014) also found that how we speak to ourselves matters, with socially anxious participants taking part in public speaking having reduced distress, improved performance and reduced post-event processing when instructed to use third-person rather than first person pronouns in IS. Morin (1993) concluded that IS both activates and mediates self-awareness, and suggested that conversations with ourselves, as opposed to merely statements or thoughts, allow us to internalise and reflect on a range of perspectives, potentially by pushing us to consider alternative views and solutions once they are ‘voiced’. The implication of internal dialogue in the self-regulation of thoughts means that IS has been considered as a central theme in theoretical models of psychological disorder.

**Inner speech and psychological disorder**

IS has long featured in the theory and treatment of psychological disorders and has been hypothesised to lead to psychological distress when it becomes too intense, excessive or perseverative (Agnati et al., 2012). This could be in the repetitive ‘silent soliloquy’ of hopes and fears in obsessive compulsive disorder (OCD; O'Brien, 2013), the depressive rumination on a “cacophony of irrelevant self-generated thoughts” (Leary,2004, p.32), the unrelenting attacks from our “inner critic” leading to grief and shame (Gilbert et al., 2001), or the ominous anorexic voice in anorexia.
nervosa, a critical inner dialogue proposed to drive weight-related attitudes and behaviour (Hendricks, 2003; Higbed & Fox, 2010; Tierney & Fox, 2010; Williams & Reid, 2012).

Key themes across a number of psychotherapeutic approaches such as Freudian psychoanalysis (1938), Gestalt psychotherapy (see Perls, Hefferman & Goodman, 1951), assimilation analysis (Stiles, 1999a, 2002) and dialogical self-theory (Hermans, Kempen & Van Loon, 1992) are multiplicity, diversity and conflict within the self, depicting individuals, and therefore IS, as being made up of a repertoire of intertwined internal monologues - “discourses with one voice” - which represent various parts of the self (Riccioni & Zuczkowski, 2009). From these perspectives, dominant internal ‘voices’ are thought to originate from individual experiences, often located in childhood, with psychological distress occurring when voices become disconnected, creating internal conflict and problematic inner dialogues (Osatuke & Stiles, 2006). Other forms of psychotherapy conceptualise problematic IS in alternative ways. For example, cognitive behavioural therapy (CBT) focuses on the content of negative verbal thoughts and schemas (Beck, 1967), whilst schema therapy targets destructive internal ‘modes’ – ‘mind states’ – which can lead to unhelpful internal and external coping responses (Young, 1990). Problematic reciprocal roles and self-to-self relating are addressed in cognitive analytic therapy (CAT; Ryle, 1979), critical internal ‘voices’ and associated emotional responses are dealt with explicitly in emotion-focused therapy (EFT; Greenberg & Johnson, 1988) and the process of how negative verbal thinking is appraised and responded to is the focus of metacognitive therapy (Wells, 2011).

With regards to specific psychological symptoms, deficits in self-monitoring of IS have been proposed to underlie the experience of auditory verbal hallucinations (AVH; for a review see Moseley, Ellison & Fernyhough, 2013). Whilst experimental studies comparing individuals with and ‘at risk’ of AVHs with healthy controls have found clinical groups are more likely to misattribute IS to ‘other’ rather than to ‘self’ (e.g. Jeannerod, 2009; Johns et al., 2010), there is conflicting evidence that AVHs are phenomenologically different to IS and that individuals can distinguish between the two (Langdon, Jones, Connaughton & Fernyhough, 2009; McCarthy-Jones et al. 2014). Irrespective of whether IS is indicated in AVHs, psychotherapy has been posited to work for individuals with diagnoses such as psychosis because it develops the complexity, flexibility and depth of a person’s internal dialogue (Lysaker, Lancaster & Lysaker, 2003), highlighting a more global, transdiagnostic role of IS in recovery from psychological disorders.

**Inner speech as a mechanism to recovery**
A number of evidence-based psychological interventions encompass working with IS, or ‘inner voices’ as is sometimes used in this context, as a central tenant of therapy. This can involve making negative IS ‘live’ and overt within the therapy room, with the client verbalising problematic IS so that the process, content and responses to IS can be addressed in the pursuit of psychological change and improvement. In experiential therapy, assimilation therapy and metacognitive therapy, the impetus is placed on how an individual appraises and interacts with their inner critic, rather than the content of their negative IS (Stinckens, Lietaer, & Leijssen, 2002). Compassion-focussed therapy (CFT; Gilbert, 2001) aims to develop a supportive and compassionate inner voice to activate feelings of safety and well-being (Gilbert, 2009a) and EFT has utilised the two-chair psychotherapy technique to externalise and resolve internal splits between the self and a harsh, critical inner ‘voice’ in anorexia nervosa (Dolhanty & Greenberg, 2009). IS also features as a self-generated coping strategy in response to psychological distress, with engagement in an internal dialogue to reassure, rationalise, motivate or problem solve used by individuals with a diagnosis of schizophrenia (Kumar, Thara & Rajkumar, 1989), body dysmorphic disorder (Cooper & Osman, 2007) and anxiety (Loades, Clark and Reynolds, 2014).

This is only a brief summary of the vast literature exploring the perceived role of IS in daily life, self-regulation and psychological well-being and disorder. Whilst there is evidence to suggest that psychological interventions targeting IS are effective for a number of psychological difficulties, the significance and nature of our inner dialogue in this process is not well defined. However, it is notoriously difficult to determine the mechanisms of change in therapeutic interventions (Kazdin, 2007), and therefore the extent to which shifts in inner dialogues determine recovery is unknown. Previous systematic reviews have brought together the literature on the philosophical, phenomenological, neurobiological and cognitive aspects of IS (e.g. Alderson-Day & Fernyhough, 2015; Ehrich, 2006; Perrone-Bertolotti et al., 2014). However, to our knowledge, this has not included qualitative research exploring the subjective experience of internal dialogues, with the exception of AVHs, which may be regarded as phenomena that, in many voice-hearers, are qualitatively distinct from “ordinary” IS (e.g. Hoffman et al., 2008). It is potentially easy when considering the development, production and function of IS to become lost in the complexities of different theoretical positions, with the risk of forgetting that IS is, above all else, a human experience in which we all engage to some degree. This review aims to address this imbalance in the literature.
through the synthesis of existing qualitative research exploring IS in psychological disorder to increase understanding and generate directions for future research.

**Objectives**

This review aimed to synthesise qualitative research exploring the experience of IS from the perspective of individuals with a diagnosis of a psychological disorder. The research questions guiding this review were:

a) How is IS described and experienced by individuals in psychological disorder?

b) What is the role of inner speaking in the development and maintenance of psychological difficulties?

c) How does IS feature in recovery?

**Method**

This study adopted a thematic synthesis approach, in accordance with a protocol proposed by Thomas and Harden (2008). This method has been used in previous systematic reviews synthesising qualitative research to answer questions about individual perspectives and experience (e.g. Harden et al., 2006; Neely, Walton & Stevens, 2014; Wood et al., 2015). Specifically, thematic synthesis provides a tested and transparent framework within which qualitative research is synthesised in order to generate new, interpretative themes which go beyond superficial descriptions of the original data content (Thomas & Harden, 2008).

**Eligibility criteria**

As this review aimed to identify any qualitative study exploring IS from the perspective of individuals living with a psychological disorder across the lifespan, the search was not limited by age of sample, type of qualitative method, publication date, or peer review, as included articles were assessed for quality at a later stage. IS was defined as speaking to oneself in silence, where this was dialogical in nature. Inclusion criteria were: a) a study sample diagnosed with a psychological disorder, defined in this review as: depression, anxiety disorders, eating disorders, bipolar disorder, schizophrenia, psychosis and personality disorders, b) a qualitative method used for data collection and analysis, with qualitative data reported within mixed methods articles permitted, c) included data which explored the subjective experience of IS from the perspective of individuals living with a diagnosed
psychological disorder. Data were defined as the full results and discussion sections of eligible studies (Thomas & Harden, 2008) and, therefore, contained both participant quotes and author interpretations. This review included studies with a broad range of research questions. In many cases, IS was not the primary focus of the included papers, but emerged indirectly in the results of the primary studies. As several studies reported single quotations or references to experiences such as self-talk, without elaboration, a minimum criterion was established that IS must be reported as a key theme or sub-theme for studies to be eligible. Exclusion criteria were: a) studies exploring only externalised self-talk; b) studies not reporting data from individuals with direct experience of psychological disorder (e.g. carers, health professionals), c) articles not available in English.

As already discussed, whilst a predominant explanatory model ascribes AVHs to IS monitoring deficits, there is sufficient phenomenological evidence that AVHs are not directly comparable to IS. More specifically, AVHs tend to have a strong sense of being externally generated (‘not me’), even if located internally, as opposed to IS which is ostensibly recognised as generated by oneself (Langdon et al., 2009). Furthermore, there is increasing evidence for subtypes of AVHs which are qualitatively different to typical IS, such as obsessional or command AVHs which cannot be reliably attributed to IS (McCarthy-Jones et al., 2014). In the context of the present review, we sought to examine IS experiences that were ‘independent’ from AVHs, but studies considering participants with AVHs were not automatically excluded from the analysis. Instead, studies meeting eligibility criteria at title and abstract screening were examined and those which described IS experiences unambiguously and independently from the experience of AVHs were deemed to be eligible. For example, a study which described cognitive coping strategies in the form of silent self-talk used by individuals with a diagnosis of schizophrenia (McNally & Goldberg, 1997) to cope with AVHs and other symptoms of psychosis such as disorganised thinking was included, as IS was clearly defined and described independently from AVHs.

**Search strategy**

Six electronic databases were searched (see Table 1). These were selected to ensure inclusion of resources from a range of disciplines including psychology, psychiatry, nursing and alternative and complementary approaches. Attempts were made to obtain additional relevant material by searching reference lists of any article read in full.
Table 1. Details of databases searched

<table>
<thead>
<tr>
<th><strong>Sources</strong></th>
<th><strong>Time period of search</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>PsychINFO</td>
<td>1806 to May 2016</td>
</tr>
<tr>
<td>Medline</td>
<td>1946 to May 2016</td>
</tr>
<tr>
<td>EMBASE</td>
<td>1974 to May 2016</td>
</tr>
<tr>
<td>CINAHL</td>
<td>1937 to May 2016</td>
</tr>
<tr>
<td>AMED</td>
<td>1985 to May 2016</td>
</tr>
<tr>
<td>Web of Science</td>
<td>1900 to May 2016</td>
</tr>
</tbody>
</table>

Search terms were defined and agreed by all authors following an initial scoping review of the literature via two electronic databases. Terms were limited to psychological disorders seen routinely in mental health services (McCrone, Dhanasiri, Patel, Knapp & Lawton-Smith, 2008) and IS terms taken from three recent systematic reviews (Martinez-Manrique & Vicente, 2010; Perrone-Bertolotti et al., 2014; Alderson-Day & Fernyhough, 2015). This is consistent with the thematic synthesis approach, where the aim is a conceptual synthesis of data from a relatively heterogeneous sample of studies across a range of contexts, from which agreement and disagreement can be observed (Thomas & Harden, 2008). IS and psychological disorder searches were combined with the operator ‘AND’. Titles and abstracts were searched for the following terms:

**IS terms** searched with ‘OR’: the following words preceded by ‘inner’, ‘internal’, ‘silent’, ‘imagined’ or ‘covert’: speech, speaking, voice, monologue, dialogue, conversation, critic, criticism, discourse, narrative. Additional terms were: self-talk, verbal thoughts and verbal thinking.

**Psychological disorder terms** searched with ‘OR’: eating disorder, anorexia, anorexia nervosa, anorexic, bulimia, bulimia nervosa, bulimic, binge eating disorder, eating disorder not otherwise specified, EDNOS, personality disorder, psychosis, psychotic, schizophrenia, schizophrenic, schizoaffective, hallucination, delusion, bi polar, bi-polar, bipolar, bipolar disorder, manic depression, mania, manic, hypomania, hypomanic, mood disorder, affective disorder, affective illness, affective dysfunction, depression, depressive disorder, depressive episode, obsessive compulsive disorder, OCD, obsession, obsessive, compulsion, compulsive, post-traumatic stress, post-traumatic stress disorder, PTSD, generalised anxiety disorder, generalized anxiety disorder, GAD, social anxiety disorder, social phobia, panic disorder, panic attack, panic, agoraphobia, agoraphobic, specific phobia.
The flow diagram outlining each stage of the search is displayed in Figure 1. In total, 3036 records were identified for screening of titles and abstracts after duplicates had been removed. To ensure reliability of eligibility assessment, authors KG and ST independently reviewed an initial sample of 1076 records (approximately 30%), selected randomly using a computer program. Inter-rater agreement at this stage was 87% with a Kappa coefficient of $\kappa = .487$ ($p < .001$), indicating moderate agreement (Cohen, 1960). The majority of discrepancies arose due to difficulties ascertaining if dialogic IS was being described from titles and abstracts alone. Where disagreement arose, studies were discussed with the wider research team and a consensus reached. Following screening of all remaining records by KG, a total of 2928 records were excluded. A further three potentially relevant records were identified through reference searches, leaving 111 full-text articles for review, of which 10 were eligible for synthesis. These are summarised in Table 2.

[Figure 1 here]
### Table 2. Summary of reviewed studies

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Aim / Objectives</th>
<th>Context</th>
<th>Method</th>
<th>IS Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pejler, Asplund &amp; Norberg (1995)</td>
<td>To illustrate experiences of being in a hospital ward from the perspective of individuals with a diagnosis of schizophrenia</td>
<td>Norway; n = 10; mixed gender; ethnicity not reported; age range 30 to 66 years; inpatients</td>
<td>Narrative interviews analysed using the hermeneutic phenomenological method</td>
<td>Sub-theme: “Being preoccupied with an inner dialogue” within the major theme “Content”</td>
</tr>
<tr>
<td>2. McNally &amp; Goldberg (1997)</td>
<td>To identify cognitive coping strategies developed by individuals with schizophrenia</td>
<td>Canada; n = 10; mixed gender; age range 27 to 45 years; mixed ethnicity; enrolled in a community psychiatric rehabilitation program; diagnosis of schizophrenia or schizoaffective disorder</td>
<td>Grounded theory on data generated from exploratory interviews</td>
<td>Major theme: “coping self-talk”</td>
</tr>
<tr>
<td>3. Broussard (2005)</td>
<td>To interpret and understand the experience of bulimia nervosa from the perspectives of women who live with this disorder</td>
<td>USA; n = 13; female; age range 18 to 36 years; mixed ethnicity; self-reported bulimia nervosa</td>
<td>Heideggerian interpretative phenomenological analysis of interviews and diary entries</td>
<td>Major themes: “Being at war with the mind”; “Pacifying the brain”</td>
</tr>
<tr>
<td>4. Hirschfeld, Smith, Trower &amp; Griffin (2005)</td>
<td>To explore young men’s subjective experiences of psychosis and the associated meanings</td>
<td>UK; n = 6; male; age range 19 to 29 years; ethnicity not reported; accessing mental health services; diagnosis of schizophrenia; 5 years or less since first psychotic episode</td>
<td>Grounded theory analysis of interview transcripts</td>
<td>Sub-theme: “Expression of experience” within the major theme “Immediate expression of psychotic experiences”</td>
</tr>
<tr>
<td>5. Higbed &amp; Fox (2010)</td>
<td>To gain an understanding of a person with AN’s perspective on their condition and how health beliefs interface with treatment experiences</td>
<td>UK; n = 13; gender not reported; age range 16 to 53; White-British; attending a specialist eating disorders unit; diagnosis of AN</td>
<td>Constructivist grounded theory on data from semi-structured interviews</td>
<td>Sub-theme: “Separation” within major theme “The relationship between AN and the self”</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Aim / Objectives</td>
<td>Context</td>
<td>Method</td>
<td>IS Data</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>6. Tierney &amp; Fox (2010)*</td>
<td>To investigate people’s encounters with and reflections on the anorexic voice</td>
<td>UK; n = 21; female; mean age 22.1 years; users of self-help organisations; self-reported anorexia nervosa</td>
<td>Thematic analysis of written accounts (letters, poems, reflective accounts)</td>
<td>Focus of research question – major themes: “Being drawn into the relationship”, “Becoming ensnared in the relationship”, “Life without the relationship”</td>
</tr>
<tr>
<td>7. Tierney &amp; Fox (2011)*</td>
<td>Comparing women’s experiences of the anorexic voice to experiences of domestic violence</td>
<td>UK; n = 21; female; mean age 22.1 years; users of self-help organisations; self-reported anorexia nervosa</td>
<td>A comparison of a thematic analysis of written accounts from women with anorexia nervosa to themes from two qualitative meta-syntheses in the domestic violence literature</td>
<td>Focus of research question: major themes: “Effect of the relationship on self-esteem”; “A prison-like existence”; “Perceptions of support”; “The process of leaving”</td>
</tr>
<tr>
<td>8. Williams &amp; Reid (2012)</td>
<td>To explore the experience of anorexia nervosa in everyday life</td>
<td>USA, UK, Canada &amp; Australia; n = 14; mixed gender; predominantly Caucasian (n = 11); self-reported anorexia nervosa and EDNOS; users of pro-recovery websites</td>
<td>Interpretative phenomenological analysis of online focus group transcripts (n = 4) and email interviews (n = 10)</td>
<td>Major theme: “Battling the anorexic voice”</td>
</tr>
<tr>
<td>9. Lawrence &amp; Lee (2014)</td>
<td>To understand the experience of CFT and the process of developing self-compassion</td>
<td>UK; n = 7; mixed gender; age range 30 to 54 years; met SCID-DSM-IV criteria for PTSD diagnosis; completed 1:1 or group CFT</td>
<td>Interpretative phenomenological analysis of semi-structured interview data</td>
<td>Major theme: “The battle to give up the inner critic – Who am I if I am not self-critical?”</td>
</tr>
<tr>
<td>10. Williams, King &amp; Fox (2015)</td>
<td>To explore the conceptualisation of sense of self in individuals with anorexia nervosa, and the impact on illness, identity and predicted future self</td>
<td>UK; n = 11; female; age range 18 to 60 years; White British, recruited from health services and charities; diagnosis of anorexia nervosa</td>
<td>Constructivist grounded theory on semi-structured interview data</td>
<td>Major themes: “Anorexia nervosa taking over the self”; “Sharing the self with anorexia nervosa”</td>
</tr>
</tbody>
</table>

*Studies used the same data in their analysis but reported findings were substantially different enough to warrant the inclusion of both articles*
Quality assessment

Study quality was rated independently by the first author (KG), with an external researcher rating a random sample (50%) of studies to assess reliability. A 12 point checklist (Harden et al., 2004; Harden et al., 2006; Thomas & Harden, 2008; see Appendix 2) was used to assess generic and specific quality criteria (see Table 3). Specific criteria related to the extent to which research findings were grounded in the experiences of people diagnosed with lived experience of psychological disorders. These criteria are based upon existing frameworks for evaluating qualitative literature, good practice guidelines for social research and include consideration of whether methods are appropriate to address the primary research question in a thematic synthesis (Thomas & Harden, 2008). As these criteria were based on good practice guidelines for social research with children, a comparable guideline for research with adults was also consulted (General Medical Council, 2013), but this did not result in any changes to the quality assessment checklist. Studies were not excluded on the basis of quality ratings due to a lack of empirical research identifying what constitutes ‘good enough’ quality for literature synthesis. However, to provide an indication of study quality, articles were awarded one point for each criterion met, and categorised as low (≤ 6 criteria met), medium (7 - 9 criteria met) or high quality (10 - 12 criteria met) (Harden et al., 2006). Implications of study quality on the findings were considered in the interpretation and discussion of the results. Finally, a ‘weight of evidence’ rating of low, medium or high was assigned based on the extent to which findings were assessed as being grounded in the experiences of people living with a psychological disorder, with consideration given to ways in which methods may have distorted, misrepresented or failed to elicit participants’ views (Gough, 2007; Harden et al., 2006). Inter-rater agreement for overall quality assessment rating categories was 60% (3/5), and 80% (4/5) for weight of evidence rating. Inter-rater agreement for individual quality criteria was calculated, and a percent agreement of 87% and Kappa coefficient of $\kappa = .627$ ($p < .001$) indicated substantial agreement (Cohen, 1960). Where disagreement arose, a consensus was reached through discussion between raters.
Table 3. Quality assessment of eligible studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Author</th>
<th>Quality assessment rating (out of 12)</th>
<th>Category</th>
<th>Weight of evidence rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pejlert, Asplund &amp; Norberg (1995)</td>
<td>7</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>2.</td>
<td>McNally &amp; Goldberg (1997)</td>
<td>10</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>4.</td>
<td>Hirschfeld, Smith, Trower &amp; Griffin (2005)</td>
<td>9</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>5.</td>
<td>Higbed &amp; Fox (2010)</td>
<td>10</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>6.</td>
<td>Tierney &amp; Fox (2010)</td>
<td>8</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>7.</td>
<td>Tierney &amp; Fox (2011)</td>
<td>8</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>8.</td>
<td>Williams &amp; Reid (2012)</td>
<td>9</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>9.</td>
<td>Lawrence &amp; Lee (2014)</td>
<td>9</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>10.</td>
<td>Williams, King &amp; Fox (2015)</td>
<td>9</td>
<td>Medium</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Data extraction and synthesis

Data extraction and analysis were completed according to the three-stage protocol for thematic synthesis (Thomas & Harden, 2008). Stage 1, completed by KG, involved the direct line-by-line coding of individual study findings, with each finding assigned one or more codes to describe content and meaning. Any finding that related to IS within the results was coded, with several findings having multiple codes. This allowed for translation of concepts across studies, which is a key task of thematic synthesis (Fisher, Qureshi, Hardyman & Homewood, 2006; Thomas & Harden, 2008). Stage 2 was the exploration of similarities and differences within the initial codes, with new codes generated and applied to each group to produce a total of 18 descriptive themes. Each theme was discussed with the wider research team and refined into 12 final themes. The final stage of analysis was the generation of analytical themes to synthesise and interpret findings of the primary studies to generate concepts and hypotheses directly relevant to the review question. Experiences and descriptions of IS were inferred from the descriptive themes, as were understandings and hypotheses about the role of IS in the development and maintenance of psychological disorder, and how it might feature in recovery. This was done first by KG, and interpretations were then shared with the wider research team. Through discussion, analytical themes were created and elaborated, with this process continuing until themes adequately described and explained each of the initial descriptive themes.
In total, three analytical themes were generated. Figure 2 provides an example of data coding and analysis, and Figure 3 provides an overview of all descriptive and analytic themes.

Results

Studies included for synthesis sampled participants with diagnoses of anorexia nervosa (n = 5), bulimia nervosa (n = 1), schizophrenia / psychosis (n = 3) and post-traumatic stress disorder (n = 1). Samples were drawn from the UK (n = 6), Canada (n = 1), USA (n = 1), Norway (n = 1) and mixed countries of origin (n = 1), with sample size ranging from six to 21 participants. Four studies explored individual perspectives and appraisals of the experience of living with a diagnosed psychological disorder, one reported experiences of being an inpatient and two focussed on coping and recovery. Data collection included face-to-face and email interviews, online focus groups and written accounts (diary entries, letters, poems). Analyses comprised variations of thematic analysis, phenomenological analysis and grounded theory. All studies were rated in the medium or high category for quality and weight of evidence, indicating descriptions of IS were likely to be reliable and valid accounts of IS grounded in the experiences of individuals with psychological disorders. Three recurrent analytical themes were identified within the data: 1) Withdrawing to an inner world, 2) A fragmented and conflicted self, and 3) Re-connecting with the outside world. Each theme is described below in turn. With the exception of Theme 2, which includes contributions from nine of the 10 articles, all studies contributed to all analytical themes, but not necessarily to all descriptive themes. Table 4 provides an overview of article contributions. For transparency, where specific themes or findings relate to certain diagnostic groups only, this is highlighted. Quotation marks denote statements directly from participants, whilst other extracts are author interpretations.

Theme 1. Withdrawing to an inner world

This theme outlines the gradual withdrawal into an inner world described by individuals living with psychological disorders, and the benefits and consequences which accompanied this. For many, the
inner dialogue was consistently and, at least initially, positively appraised as a survival strategy, an aid to coping with the stress and trauma of life.

To protect him or herself a withdrawal to his / her own world is a strategy for survival (Pejlert et al., 1995, p. 275).

IS was a tool for considering problems, making sense of internal experiences, expressing feelings and ‘daydreaming the self away’ when the regular world felt too hard (Pejlert et al., 1995, p. 272). This process was comforting and supportive, providing a sense of control and safety, which were otherwise felt to be lacking.

During the early stages of the eating disorder, participants were mostly aware of the positive coping and avoidance functions of their cognitions and behaviours and because of this anorexia nervosa was metaphorically ascribed the meaning of a ‘friend’. (Williams & Reid, 2012, p. 804).

There was a clear link between IS and the regulation of cognition and behaviour. Core values and rules for living were made explicit in IS, motivating people to strive to achieve and survive according to these standards. For those with experience of eating disorders and trauma, this had the positive function of evading painful thoughts and emotions such as failure, guilt and worthlessness.

“You have to push yourself, you have to. And then if you don’t push yourself well you’re just a bad person. You must be a high achiever because if you are not you are nothing.” (Lawrence & Lee, 2015, p.499).

Across studies, constantly ruminating on problems and following the rules set out for oneself in IS made life feel simpler and safer. However, as time went on, rumination made problems feel overwhelming and increasingly difficult to make sense of, whilst unrealistic standards for living were simply unachievable.

“’The voice did not congratulate me for obeying anything, nor did it ease off if I did...There was always something I did not do well enough and this was what the voice drummed into me...It made me scared to be alive because every day I had to get up and face its abuse. I knew I would be challenged further’” (Tierney & Fox, 2010, p. 248).
There appeared to be a shift in the quality of IS at this stage, with a dominant narrative emerging which was increasingly critical, derisive and intolerant of oneself, and suspicious of the motives and intentions of others. This created a sense of being controlled, as opposed to being in control, feeling ‘consumed’, ‘pre-occupied’, and ‘possessed’ by one’s own mind.

Several patients appeared inactive but were in fact highly active, engaged in an inner dialogue or thinking about personal problems...... "I sit here and think about what is wrong". (Pefljert et al., 1995, p. 271 – 272).

"Anorexia is [. . .] a constant nagging, demanding, controlling, aggressive. . . voice which criticizes everything that you do and reminds you daily that you are undeserving, unloved, worthless, pathetic.” (Williams & Reid, 2012, p.808).

In general, there appeared to be a narrowing of one’s sphere of focus, paying increasing attention to the dominant negative internal dialogue which, as a result, became louder, harder to ignore and ominously ever-present. As behaviour changed in response to this, for example spending more time sitting and thinking about problems and less time with others or engaged in pleasurable activities, there was little room left for anything, or anyone, else, slowly isolating people from those around them.

.....women described going to great lengths to pacify their critical voice, enduring painful exercise and dietary regimens in the process. This can result in a loss of self as they abandon aspects of their former life, including socialising, because of the demands placed upon them (Tierney & Fox, 2011, p.33).

Rather than a shift in dominant and negative narratives in IS being perceived as either all positive or all negative, it appeared that both views were held simultaneously, with people recognising the unintended negative consequences of engaging with negative IS whilst also feeling powerless or reluctant to change due to the security it afforded them. This duality appeared to be linked to a wider internal conflict and, ultimately, a split in how people viewed themselves and their identity. This is explored further in Theme 2.

Theme 2: A fragmented and conflicted self

As difficulties progressed and increased, people began to distinguish between their ‘rational self’, which included the representation of views held by family, friends and health professionals, and
the ‘irrational self’, their problem-focussed IS which pertained to narratives of self-criticism, perfectionism, and being unsafe. This split appeared to shape and impact self-identity, leaving people feeling fragmented and confused about who they really were.

Participants described having two selves and being confused as to which person they were. (Williams et al., 2015, p. 10).

“You know, there are dark places and bright places that you carry inside you all the time....” (Pejlert et al., 1995, p. 272).

Whilst instability in self-identity was a recurring theme, how this was described differed across clinical groups. For individuals with experience of eating disorders, negative IS associated to their eating disorder became personified, assigned human characteristics such as ‘evil twin’, ‘Ana’ and ‘the demon’, and qualities such as gender and tone. Negative IS took on its own voice, which was seen as both part of oneself (self-generated), and simultaneously as a separate entity. This was interpreted by Higbed and Fox (2010) as the process of taking different positions within the self and appeared to be a severity marker, moving from perceived controlled dieting and eating to uncontrollable restricting and disordered weight loss behaviour.

”Jon: it’s like there are 2 people in my head: the part of me that knows what needs to be done and the part of me that is trying to lead me astray. Ana is the part that is leading me astray and dominates me.” (Williams & Reid, 2012, p. 807).

What developed for those with eating disorders and PTSD in particular was the feeling that the opposing parts of the self were trapped in a supportive yet destructive relationship. Tierney and Fox (2011) drew parallels with experiences of partner violence, whilst Lawrence and Lee (2014) described this as the “internalised relationship that participants have with themselves” (p. 504), originating from past negative experiences with caregivers. More widely across studies, the fragmented sense of self appeared related to a division between aspects of inner experience perceived to be either within or beyond control, and feelings of anger and anxiety arose when identifying unwanted thoughts and experiences in IS.

"I did not really want to be experiencing them, and showing anger was a way of, I don't know, asking for help in a way or just erm reinforcing that I was not happy with the things in my mind at the time.” (Hirschfeld et al., p.257 - 258).
"...it's something you're obsessed with and think about all the time. But at the same time you realise that you're doing it you can't even control yourself" (Broussard, 2005, p.48).

This resulted in an internal conflict, with the rational self-battling against the more dominant, negative self. Fighting back often caused the 'negative mind' to get stronger, and people eventually found themselves becoming submissive to the dominant part of their identity, falling back in to disordered patterns of thinking and coping in an attempt to find relief from their inner turmoil.

When describing being introduced to the concept of self-compassion and what this felt like, participants talked about their experience of increased self-critical thoughts. Participants' experiences of increased self-criticism prevented them from becoming self-compassionate. (Lawrence & Lee, p. 501).

In order to pacify the inner voice many fed the compulsion to eat, which resulted in guilt, and they subsequently balanced the experience through self-induced vomiting. (Broussard, 2005, p.48).

Although it was apparent that the rational self, the aspect of IS retaining a positive and helpful dimension, was present throughout, it could be difficult to make use of this during acute phases of distress, highlighting shifts in the dominance of negative IS at different stages.

While the experience of talking to oneself was evidenced even during the acute phase of schizophrenia, it was during this later phase where the participant had gained some control that it becomes an especially useful resource for coping. (McNally & Goldberg, 1997, p.164).

This had implications for if and how people were able to find a way to disengage from their dominant inner voice, which is explored further in Theme 3.

Theme 3. Re-connecting with the world

Given the duality of positive and negative experiences of the rational and irrational self, it was unsurprising that the possibility of change was aversive for many. There was often ambivalence towards recovery and what this meant; people were left wondering what would happen, and who they would be, if the most dominant part of their identity was taken away. As such, recovery could
be perceived as disowning parts of the self that had enabled people to cope at the most difficult of times.

“Learning to deal with the voices is a difficult task … learning to not listen to them can be like killing your best friend. It's confusing and scary” (Tierney & Fox, 2011, p. 36).

“...am I going to like the person that I've become? Because I've been like this, with these memories and these thoughts and this for so long” (Lawrence & Lee, 2014, p. 499).

Nevertheless, disengaging from negative IS was ubiquitously seen as a key task in the reduction of psychological distress across studies. Consistent with the experience of a fragmented self (Theme 2), one person described recovery as "putting together the puzzle of myself" (Pejlert et al., 1995, p. 271), whilst another described becoming “a whole person” (Williams & Reid, 2012, p. 809), which included re-engaging with life and those around them.

They were able to replace the voice of AN with one of reason, which included listening to others and accepting their support and help. (Tierney & Fox, 2010, p. 250).

People used a number of strategies to achieve this. Fighting back against their negative IS was a strategy most people tried, arguing and debating with oneself in IS in the hope that the rational self eventually prevailed. Whilst possible, this was generally draining and, especially in the early stages of recovery, had the unintended consequence of the negative internal dialogue becoming louder and more overwhelming. Whilst some people were eventually able to win the battle and grew in confidence from doing so, for others it was just too much.

Participants reports indicated that they grew to have more confidence in their ability to talk themselves through a disorganized thinking episode and to exert their will in the presence of auditory hallucinations". (McNally & Goldberg, 1997, p. 164).

"Kelly: Basically – for me, when I listen to the negativity and live the negative lifestyle (aka anorexic life) then the negative tape in my head lessens. It has nothing to fight against. When I ignore it things in my head get really loud and it’s horrible for a long time [...] When I start to go against the negativity and want to recover and become a 'whole' person, then the thoughts get worse and worse. (Williams & Reid, 2012, p. 809).

Ultimately, a more effective strategy appeared to be learning to ‘let go’ and ‘be free’ of negative IS. This included not dwelling on difficult thoughts and feelings in IS, the use of humour in
self-talk, and allowing other more helpful aspects of the self to have a space in the inner dialogue. Replacing negative inner dialogue with positive, comforting and helpful self-statements was an active strategy used for this purpose.

"When I start to get into something that I don't like.....just not to get worked up on it, just saying 'This isn't worth getting worked up on" and letting something good happen in its place." (McNally & Goldberg, 1997, p.163).

"I mean I could feel me inside kind of like trying to get out but I wasn't able to do anything about it at that time until I kind of did make that decision. . .I'd be more free to be me." (Williams et al., 2015, p.12).

Letting go of negative IS was a long and challenging process filled with anxiety and uncertainty. It took practice, patience and opening the self up to support from others and the possibility of new experiences. For some, there was the sense that even when disengaged from negative IS, they had never fully let it go, keeping it in reserve for times of crisis, which potentially served as a risk factor for relapse.

"There are times when I felt in control of my life, well, enough to loosen my grip on my crutch. I've never put down the crutch, though, and I wonder if I ever will" (Williams & Reid, 2012, p. 804).

However, when successful, this led to feelings of hope, self-awareness and a more positive attitude to life.

As one of the patients said in the interview "I'm busy putting together the puzzle of myself". If 'positive withdrawal', where a person can re-organise his or her experiences, is a first step into a new relationship with others, the longing for contact must be the foundation for a re-opening into the world. (Pejlert et al., 1995, p.276).
Table 4. Cross-comparison of articles contributing to each theme

<table>
<thead>
<tr>
<th>Analytical Theme</th>
<th>1. Withdrawing into an inner world</th>
<th>2. A fragmented and conflicted self</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Descriptive Themes</strong></td>
<td>Positive aspects of IS</td>
<td>Role of IS in regulating cognition and behaviour</td>
</tr>
<tr>
<td>6. Tierney &amp; Fox (2010)*</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>7. Tierney &amp; Fox (2011)*</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>8. Williams &amp; Reid (2012)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>10. Williams, King &amp; Fox (2015)</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
Table 4. Cross-comparison of articles contributing to each theme

<table>
<thead>
<tr>
<th>Analytical theme</th>
<th>Theme 3. Coping and Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ambivalence about change</td>
</tr>
<tr>
<td>6. Tierney &amp; Fox (2010)*</td>
<td>+</td>
</tr>
<tr>
<td>7. Tierney &amp; Fox (2011)*</td>
<td>+</td>
</tr>
<tr>
<td>8. Williams &amp; Reid (2012)</td>
<td>+</td>
</tr>
<tr>
<td>10. Williams, King &amp; Fox (2015)</td>
<td>+</td>
</tr>
</tbody>
</table>
Discussion

Summary of findings

This review aimed to explore the role of IS in the development, maintenance and recovery from psychological disorder by synthesising the findings from 10 individual studies exploring experiences of living with a diagnosed psychological disorder. It goes beyond descriptions of the original articles, generating three analytical themes which contribute new ideas and understandings regarding the role of IS in psychological disorders. The three analytical themes describe how inner dialogues change in nature and intensity over time, and the impact this has on identity and recovery.

There is a debate within the literature regarding the primary function of IS. Whilst this review cannot resolve this, a clear finding was the important role of IS as a coping mechanism. Captured in Theme 1, IS was perceived as a strategy to deal with trauma, avoid painful emotions and motivate people to strive and achieve, going some way to preserving existing self-esteem. This is consistent with existing research that individuals with a diagnosis of schizophrenia (Kumar, Thara & Rajkumar, 1989), body dysmorphic disorder (Cooper & Osman, 2007) and anxiety (Loades, Clark and Reynolds, 2014) engage in internal dialogues as a coping mechanism. Whilst positive beliefs about the helpful functions of IS were retained over time, they appeared to become overshadowed by the negative consequences of engaging with inner dialogues which became increasingly intense, harsh and critical. This supports previous research suggesting that IS is problematic when it becomes perseverative and excessively problem-focused (Agnati, 2012). This was marked in the current review by the described shift from ‘rational thoughts’ to ‘irrational thoughts’, or ‘the voice’ for those with eating disorders (Broussard, 2005; Higbed & Fox, 2010; Tierney & Fox, 2010). The notion that expanded IS is more likely at times of increased stress (Fernyhough, 2004) was also supported, with the frequency and ‘volume’ of critical internal dialogues growing as psychological disorder progressed. However, whether expanded inner dialogues were the cause of, or the result of, increased psychological distress was unclear, and it seemed that both may be the case, with people trapped in a vicious cycle which was difficult to break.

This review provides evidence consistent with the view that how we speak to ourselves in IS is important (Kross et al., 2014; Senay et al., 2010), with negative inner dialogues causing significant emotional distress such as anger and anxiety. Despite recognising the negative consequences of continuing to be guided by critical IS, this was not sufficient to bring about change.
This appeared to be an example of what has been referred to in the acceptance and commitment therapy (ACT) literature as ‘cognitive fusion’ (Hayes, 2004a); where a person becomes fused to negative thoughts and thought patterns, accepting these as ‘absolute truths’, or rules and commands that have to be followed. This is relevant for IS in particular because ACT proposes that problematic psychological processes are inherent in language, because language itself is ‘learned behaviour’ (Hayes et al., 1996). Words spoken aloud or silently to oneself have the power to trigger strong emotions which can become generalised to a range of situations over time, and because internal thoughts are linked to automatic responses, such as striving or avoidance, they become self-confirming. An example from this review would be the theme of guilt and failure in internal dialogues, which were fused to behavioural responses of pushing oneself harder, or total avoidance. In both situations, the internal dialogue became self-confirming as people strove to achieve unattainable goals, or withdrew to their inner world, missing out on real opportunities for success and validation, ultimately confirming oneself as a failure.

IS has been proposed to mediate self-awareness (Morin, 1993), however this review found a more specific role for IS was the shaping of self-identity, and this was the focus of Theme 2. Negative inner dialogues were simultaneously egosyntonic, consistent with values of achievement and safety, and egodystonic, because they were excessive, unwanted and significantly impacted on quality of life. This duality is consistent with the literature exploring the quality of thoughts in eating disorders and obsessive compulsive disorder elsewhere (Belloch, Roncero & Perpina, 2012). The fact that critical inner narratives were egosyntonic at their core potentially explains why they appeared to play a central role in how self-identity was constructed. As negative inner dialogues increased and persisted, this resulted in the experience of a fragmented self-identity - the ‘rational’ and ‘irrational’ self - which were engaged in a constant inner conflict. This was consistent with psychotherapeutic models of psychological disorder (e.g. Freud, 1938; Gestalt, 1951; Hermans et al., 1992), where conflict between inner positions or voices leads to distress and dysfunction.

Although many similarities in IS were identified across studies, the main difference appeared to be how problematic IS was conceptualised between diagnostic groups. Whilst a split between the rational and irrational self was relatively ubiquitous, this appeared to go one step further for those with eating disorders, with IS personified as a voice, and sometimes given a name and a gender (Broussard, 1995; Tierney & Fox, 2010, Williams et al., 2015). Whilst this inner voice was still seen
as generated by the self, it was clearly differentiated between one’s own typical thoughts and the voice of the eating disorder. The switch to experiencing IS as an inner voice was not reported in other articles with populations with PTSD and psychosis. However, IS was also not the focus of those studies and so this may have been due to a lack of exploration or further discussions of IS in those articles. As such, it remains unclear if an inner voice is unique to eating disorders, or if this is a more transdiagnostic aspect of psychological disorders.

Taken together, the experiences of a fragmented identity and disconnected self described in this review have similarities to dissociative experiences. A key facet of dissociation is a sense of detachment from oneself and one’s environment (International Society for Study of Dissociation, 2011), and a sense of being out of control (Olff, Langeland, Draijer & Gersons, 2007), both of which were found here. Dissociation is viewed as a defence mechanism in the face of trauma and significant distress (Dell & O’Neill, 2009). Given that IS was a valued coping strategy, and that dissociation occurs on a continuum, it could be that the conceptualisation of aspects of IS as different parts of the self, and in particular as a voice in eating disorders, is a form of dissociation, ‘splitting off’ parts of the self that are unwanted or unsatisfactory in an attempt to protect against further distress. High levels of dissociation have been reported for individuals with anorexia nervosa (Farrington, Waller, Neiderman, Sutton, Chopping & Lask, 2002; Grave, Oliosi, Todisco & Bartocci, 1996), PTSD (Brewin & Patel, 2010) and psychosis (for a review see Pilton, Varese, Berry & Bucci, 2015), and further research is required to explore this in the context of IS.

Given that IS shaped self-identity, recovery was understandably aversive and anxiety-provoking when viewed as a process of disowning or ridding the self of dominant inner dialogues (Lawrence & Lee, 2014, 2014; Tierney & Fox, 2010), as discussed in Theme 3. Fighting back or arguing against critical IS was met with an increase in the perceived ‘volume’, power and dominance of problematic inner narratives. This indicated that therapies which seek to challenge and change the content of IS may result in increased distress, which may serve as a barrier to help-seeking and engagement in treatment. This is consistent with research highlighting the lack of scientific evidence regarding direct links between challenging and changing the content of verbal thoughts and positive clinical outcomes (Webster, 2011), and reports that thought challenging is generally met with resistance in clinical practice (Wells, 2007), inadvertently giving negative inner dialogues more importance and potentially leading to disengagement from therapy. This has led to the development
of third wave cognitive therapies which focus on the function and process of IS, and such approaches, which facilitate disengagement and ‘letting go’ of negative internal dialogues, were indicated as a more helpful route to recovery in this review.

**Similarities between IS and auditory verbal hallucinations**

Whilst studies exploring AVHs with no clear description of IS were excluded, it is potentially useful to consider the findings of this review in the context of the AVH literature. There is certainly an overlap between AVH and IS, with 34% of participants who experience AVHs being found to recognise at least a proportion of their AVHs as their own thoughts (McCarthy Jones et al., 2014). A meta-ethnography exploring the content and meaning of AVHs found that individuals often personified the voices they heard, assigning names and genders (Holt & Tickle, 2014), which was paralleled here for people with eating disorders. The temporal changes in IS found in this review are also consistent with reported switches from positive to negative affect following extended powerful and dominant AVHs (Milligan, McCarty-Jones, Winthrop & Dudley, 2013). Milligan et al., (2013) linked this negative affect, often paranoia, to the tendency to isolate oneself, again mirroring the withdrawal to an inner world and the disconnect from other people which featured in this review. AVHs have been found to have similar roles to IS identified here, most commonly to support, advise and encourage, with this having a positive role in decision making and facilitating increased simplicity in life (Fenekou & Georgaca, 2010). Research has found that participants diagnosed with schizophrenia are more likely to engage with AVHs appraised as benevolent, with this linked to poorer social functioning because supportive and friendly voices meant people were less likely to seek help or see the value in change (Favrod, Grasset, Spreng, Grossenbacher & Hode, 2004). This links directly to the findings of this review, where the perception of IS as a coping strategy and supportive was a significant barrier to change and engagement with external support. Similar routes to recovery from AVHs and problematic IS were also found, with management of AVHs including changing beliefs about ‘voices’, engaging with external support, and finding different ways of being with voices (Hayward, Awenat, McCarthy-Jones, Paulik & Berry, 2015), all of which are consistent with the notion of ‘letting go’ and re-engaging with others, described in Theme 3. What appears different when comparing problematic IS and the experience of AVHs is the role of others in AVHs. For example, people who experience AVHs sometimes believe that others can hear their thoughts or are able to
put thoughts into their mind, and this is not described as a feature of problematic internal dialogues. Similarly, the identity assigned to AVHs is also different, with verbal hallucinations often being ascribed the voice of another person or a supernatural force and not to oneself (Holt & Tickle, 2014). As such, the key difference between AVHs and problematic IS does not appear to be one of content, emotion, temporal development or recovery, but one of agency.

**Implications for clinical practice**

The findings of this review advocate for the use of therapeutic interventions which undermine established, problematic inner dialogues, and focus on the process of disengagement and development of other, more positive inner narratives. To this end, psychological approaches which do not attempt to change the content or frequency of private events, but rather the ways in which individuals relate to and respond to these, are likely to be most helpful. Approaches focussing on disengagement from unhelpful dialogues include mindfulness (Gilbert, 2009), metacognitive therapy (Wells, 2011), and ACT (Hayes, 2004a), whilst therapies which seek to develop more positive ways of relating to oneself include CAT (Ryle, 1979), EFT (Greenberg & Johnson, 1988) and CFT (Gilbert, 2009). These are not approaches which need to be delivered solely by qualified psychotherapists, but specific techniques, such as mindfulness and compassionate care, can be learnt and delivered relatively quickly and easily by health professionals with adequate training and supervision. However, the valued function of negative and critical IS as a strategy to survive, achieve, and cope cannot be underestimated. As described in this review, encouraging individuals to let go of this survival strategy and find a new way of coping can be aversive, and recovery is often fraught with anxiety and self-doubt. Clinicians should be mindful of this, and conversations which focus on building up existing, helpful coping skills and inner narratives, rather than neglecting or 'getting rid' of an integral part of one’s identity, may be met with less resistance.

**Strengths and Limitations**

The majority of articles included in this synthesis (50%) reported IS experiences from the perspectives of individuals living with eating disorders, mainly anorexia nervosa, and as such all findings may not be relevant to individuals living with other psychological disorders. However, all studies contributed to some descriptive themes, and nine of the 10 studies contributed to all
analytical themes, with no one theme being located solely in eating disorder research. As such, whilst further qualitative research of IS experiences across clinical groups is still required, it is argued that this review is relevant for individuals experiencing psychological disorders more generally.

This review was restricted to terms pertaining to psychological disorders seen routinely in mental health services in the UK, with the goal of presenting a clinically relevant review. This means several diagnostic categories not included in the search and it is possible that relevant studies were missed as a result. However, thematic synthesis is shaped by the number of concepts, rather than total number of studies included (Thomas & Harden, 2008). In this way, it is more important to include a range of studies which report subjective experiences across a variety of contexts on a particular topic, rather than include every available study. The sample of articles in this study is considered diverse in its range of clinical populations, country of origin, mix of ethnicities and genders, and variety of clinical contexts (inpatient, outpatient and community). As such, the likelihood that a range of concepts has been included is increased, and the possibility that the findings would be changed significantly by the addition of further studies is minimised. However, as IS emerged indirectly in qualitative themes reported in a number of the studies included here, it is possible that some relevant studies were not detected due to not reporting relevant information about IS in their titles and abstracts.

**Directions for future research**

Whilst this review provides evidence pertaining to the experience of IS following the onset of psychological disorder, what isn't captured in the articles reviewed is subjective views on the origin and process by which critical internal dialogues come to exist and dominate, as opposed to other, more self-compassionate forms of IS. Lawrence and Lee (2014) hypothesise from a CFT perspective that the self-critic emerges following experience of critical caregivers in childhood. Whilst this was theoretical rather than based on subjective experiences in their study, there is an extensive body of research relating to attachment theory and the view that the development of internal working models shaping how one relates to themselves and other are derived from experiences of early relationships (Bowlby, 1969, 1988). Specifically, that how we learn to treat and care for ourselves and others, including how we relate to ourselves in our inner dialogue, is much influenced by relationships we have when we are young. Future research which explores the development of the critical inner
dialogue is required to understand not only risk factors to this, but also factors which foster resilience and promote the development of positive and compassionate inner narratives.

The role of IS in psychological disorder outlined in this synthesis is based on views of people with diagnoses of eating disorders, post-traumatic stress disorder, psychosis and schizophrenia. Further qualitative research is required to confirm if these findings are generalisable to individuals experiencing psychological distress and disorder more generally, which would highlight the need for more transdiagnostic approaches to problematic IS. Therapies focussing on the acceptance of and disengagement from problematic IS were indicated in this review. As psychotherapeutic interventions which target the process and function of IS continue to progress, this study gives a stronger voice to the importance of empirically testing the effectiveness of these approaches across clinical groups, with a view to adapting and improving treatment for those who are most likely to benefit from it.

Conclusions

IS in the form of dominant, critical inner dialogues, plays a key role in the maintenance of and recovery from psychological distress and disorders. Research and interventions which build and nurture more helpful inner narratives are indicated to effectively help those who are diagnosed with and experiencing psychological distress and disorder.
Funding Sources

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.
References


Figure 1.

3760 records identified through database searching

724 duplicates removed

3036 records screened at title and abstract level

2928 records excluded due to one or more of the following reasons:
- No qualitative method
- No psychological disorder
- No reference to IS
- Experience of AVH only
- Data from carers / professionals only

108 full text articles assessed for eligibility, plus 3 identified from reference lists (n = 111)

101 full text articles excluded:
- Not qualitative method (n = 27)
- Not IS (n = 65)
- No psychological disorder (n = 9)

10 studies included in thematic synthesis
"...it gives you like a split personality. Good and bad, positive yeah, it’s like, it’s like your evil twin type of thing.“ (Williams et al., 2015, p.11)

"You know, there are dark places and bright places that you carry inside you all the time“ (Pejlert et al., 1995, p.272)

Analysis suggested that a key theme in the data was that of a ‘toxic relationship’ that participants had with their inner anorexic voice. (Tierney & Fox, 2011, p.33)
Figure 3.

1. Withdrawing into an inner world
   - Positive aspects of IS
   - Role of IS in regulating cognition and behaviour
   - Gradual narrowing of focus and attention
   - Negative quality and consequences of IS over time

2. A fragmented and conflicted self
   - A rational and irrational self
   - Dual identity
   - Relational nature of IS
   - Submitting to dominant inner narratives

3. Re-connecting with the world
   - Ambivalence about change
   - Fighting back
   - Letting go
   - Re-building the self

Negative quality and consequences of IS over time
Figure Captions

- **Figure 1.** Flow of studies through systematic review
- **Figure 2.** Example of data coding and analysis
- **Figure 3.** Descriptive and analytical themes generated through thematic synthesis
Author disclosure statements

Statement 1. Role of funding sources
Funding for this study was not required as it was part of the first author’s doctoral training at the University of Manchester, whilst employed by Manchester Mental Health and Social Care Trust. Neither had any role in the study design, collection, analysis or interpretation of the data, writing the manuscript, or the decision to submit the paper for publication.

Statement 2. Contributors
Authors Dr Kay Gant, Dr John Fox and Dr Stephanie Tierney designed the study and wrote the protocol. Kay Gant conducted literature searches, the thematic synthesis analysis and wrote the first draft of the manuscript. Authors Kay Gant, John Fox, Stephanie Tierney and Dr Filippo Varese discussed and refined the analytical themes as part of the synthesis process. All authors contributed to and have approved the final manuscript.

Statement 3. Conflict of interest
All authors declare that they have no conflicts of interest.
Paper 2.

The Development and Assessment of a Scale to Measure the Experience of an Anorexic Voice in Anorexia Nervosa

Written in accordance with author guidelines for

‘Advances in Eating Disorders: Theory, Research and Practice’ (see Appendix 3)

Word count (excluding cover page, abstract, tables, references, figures, captions and footnotes): 5969
Cover Page

Dr Kay Gant*, Trainee Clinical Psychologist, Division of Psychology and Mental Health, University of Manchester, Oxford Road, Manchester, M13 9PL. Telephone: 0161 3060400. Email: kay.hampshire@postgrad.manchester.ac.uk

Dr Stephanie Tierney, Senior Research Fellow, Royal College of Nursing Research Institute, University of Warwick, Coventry, CV4 7AL. Telephone: 02476 150619. Email: stephanie.tierney@warwick.ac.uk

Dr Filippo Varese, Lecturer in Clinical Psychology, Division of Psychology and Mental Health, University of Manchester, Oxford Road, Manchester, M13 9PL. Telephone: 0161 3060400. Email: filippo.varese@manchester.ac.uk

Professor Gillian Haddock, Professor of Clinical Psychology, Division of Psychology and Mental Health, University of Manchester, Oxford Road, Manchester, M13 9PL. Telephone: 0161 3060400. Email: Gillian.haddock@manchester.ac.uk

Dr Saeideh Saeidi, Senior Research Nurse, Leeds and York Partnership NHS Foundation Trust, Yorkshire Centre for Eating Disorders, LS14 6WB. Telephone: 0113 8556400. Email: s.saeidi@nhs.net

Dr John Fox, Consultant Clinical Psychologist, Barnet, Enfield and Haringey NHS Trust and Lecturer in Clinical Psychology (honorary), Royal Holloway University of London. Email: johnfoxresearch@gmail.com

* Corresponding author
The Development and Assessment of a Scale to Measure the Experience of an Anorexic Voice in Anorexia Nervosa
Abstract

Background The anorexic voice is defined as a critical internal dialogue which has been implicated in the development and maintenance of anorexia nervosa (AN). Systematic research to explore this further requires a valid and reliable tool to measure this phenomenon.

Objective To develop and assess the validity of the Experience of an Anorexic Voice Questionnaire (EAVE-Q).

Method Stage 1: EAVE-Q items were developed and refined through seven cognitive interviews with individuals diagnosed with AN. Stage 2: 148 participants with a diagnosis of AN completed the EAVE-Q, sociodemographic questions and measures of mood and quality of life.

Results Principal axis factoring resulted in an 18 item scale organised into five domains with high internal consistency (α = .70 to α = .85). Domains correlated significantly with eating disorder symptoms, psychological distress and quality of life. The EAVE-Q did not discriminate between participants on the basis of body mass index.

Limitations: The factor structure of the EAVE-Q requires replication in other AN samples.

Conclusions: The EAVE-Q is the first measure of a critical internal dialogue in AN. It is hoped that the EAVE-Q will aid future research to increase understanding of AN, and the continued development of person-centred treatments.
Keywords

- Anorexia nervosa
- Anorexic voice
- Eating disorders
- Scale development
Introduction

Qualitative research in Anorexia Nervosa (AN) has identified the experience of an ‘anorexic voice’ (AV) (Higbed & Fox, 2010; Tierney & Fox, 2010), hypothesised to be a key psychological component which may contribute to the development and maintenance of this serious psychological disorder. The AV is defined as “a critical-internal dialogue (i.e. a second or third commentary which is ‘heard’), orientated around shape, weight, eating and their implications for self-worth” (Pugh, 2016, p.1). The AV has been hypothesised to drive weight-related attitudes and motivate individuals to engage in unhealthy weight control practices (Hendricks, 2003; Shelley, 1997). Although conceptualised as a ‘voice’, the AV has been differentiated from auditory verbal hallucinations (AVHs) because it is described simultaneously as both a separate entity, and a part of one’s own inner speech (Higbed & Fox, 2010; Williams & Reid, 2012). Researchers have drawn on aspects of dialogical self-theory (Hermans, Kempen & Van Loon, 1992) to understand this phenomenon, suggesting it represents an internal self-critical position which attempts to dominate the more rational self (Hendricks, 2003; Williams & Reid, 2012; Williams, King & Fox, 2015). The AV has been reported to change in nature and intensity over time (Tierney & Fox, 2010), beginning as a process which provides comfort and security, but quickly changing to be more sinister and powerful as AN progresses, consuming thoughts, driving behaviour and triggering negative emotions such as panic when rules and expectations are ignored (Tierney & Fox, 2010; Tierney & Fox, 2011; Williams & Reid, 2012). The change from positive to negative appraisals of inner speech, and its conceptualisation as a voice, has been indicated as a severity marker, switching from controlled dieting to an eating disorder (ED) (Williams & Reid, 2012; Williams et al., 2015). This is accompanied by realisations of physical emaciation, loss of control and contemplation of help seeking (Williams & Reid, 2012). However, the AV is seen as a barrier to help seeking because despite its negative consequences, its positive attributes may make it difficult to give up (Tierney & Fox, 2010; Williams et al., 2015).

It has been hypothesised that externalising anorexic thoughts as a voice may be helpful for recovery, and that therapeutic techniques facilitating acceptance of difficult internal experiences and the taking of more dominant, positive positions within the self should be explored (Higbed & Fox, 2010; Williams et al., 2015; Williams & Reid, 2012). A study by Pugh & Waller (2016) found that, when using a scale developed for AVHs, the perceived power of the AV was positively
associated with ED symptoms, whilst lower body mass index (BMI) was associated with benevolent perceptions of the AV. However, the authors acknowledged this study potentially measured AN thoughts more generally, rather than the AV specifically, and that AVH scales may not appropriately capture this phenomenon (Pugh & Waller, 2016). Nevertheless, this research points to the potential importance of targeting the AV in psychological treatment. Dolhanty and Greenberg (2009) report the only case-study where the AV has been the focus of treatment, using emotion-focussed therapy (EFT) to decrease the harshness of the AV, with moderate improvement in depression and ED symptoms.

**Criticisms of the AV concept**

It has been suggested the AV may be just another way of conceptualising thoughts related to AN (Fairburn, Shafran & Cooper, 1999). However, there is evidence the AV can be reliably distinguished from other inner dialogues such as self-criticism (Noordenbos, Aliakbari, & Campbell, 2014), indicating it may be a separate cognitive phenomenon (Pugh, 2016). The AV has also been criticised as being a purely social construct, emerging through research and therapeutic approaches rather than individual experience per se (Maisel, Epston & Borden, 2004). Yet qualitative research reports that individuals identify with the experience of an AV prior to contact with services (Williams et al., 2015). Finally, some have warned against the externalisation of AN as a voice, fearing it could lead to diminished responsibility over behaviour and recovery (Wright & Hacking, 2012), or give greater power to anorexic features such as the sense of being controlled (Higbed & Fox, 2010). However, qualitative descriptions unequivocally characterise the AV as both a separate entity and an integral part of the self (e.g. Williams et al., 2015), and research advocates not to ‘get rid’ of the AV, but rather to change the relationship between the AV and the individual (Higbed & Fox, 2010).

**Objectives**

There is little systematic research exploring the AV, and this is difficult to progress without a valid and reliable tool to measure this phenomenon. To our knowledge, no existing scale adequately captures AV concepts or experiences. As such, this study aimed to develop, test and refine the Experience of an Anorexic VoicE Questionnaire (EAVE-Q). This paper follows an earlier study which
included thematic analysis of interview data from nine individuals with AN (Evans, 2014). Further analysis of that data, alongside a review of the existing qualitative AV literature (Higbed & Fox, 2010; Tierney & Fox, 2010; Tierney & Fox, 2011; Williams & Reid, 2012; Williams et al., 2015) identified five recurring themes hypothesised as domains underlying the AV experience: identity and externalising (i.e. conceptualising the AV as part of the self and a separate entity); positive functions (e.g. promotion of perceived control); negative consequences (e.g. social withdrawal); power and dominance (i.e. the sense of the AV taking over the self); and the AV as a barrier to recovery (e.g. promoting secrecy). The research aims were: 1) to assess the dimensions of the EAVE-Q using exploratory factor analysis; 2) to explore the face and content validity of the EAVE-Q through cognitive interviews; 3) to assess the internal consistency of the EAVE-Q domains with the current clinical sample; 4) to evaluate construct validity by assessing if EAVE-Q domains are significantly associated with severity markers of AN, specifically BMI, eating disorder symptoms, mood and quality of life (QoL). Based on the literature, it was predicted that any domains related to positive functions of the AV and externalising the AV would be associated with decreased distress and increased QoL, given these are linked to coping and recovery. The opposite was predicted for domains related to negative consequences of the AV, power and dominance of the AV and the AV as a barrier to recovery, with positive associations with distress and negative associations with QoL expected.

Method

Ethical approval

Ethical approval for Stage 1 and 2 was received from two separate NHS Research Ethics Committees (see Appendix 4 and 5).

2 'Advances in Eating Disorders' guidelines specify appendices should be presented after the references for this paper. However, for ease of reference in this thesis, appendices for each paper are numbered consecutively and presented in a single appendix at the end of the thesis.
Stage 1: Scale Development

Item generation

Item generation was guided by the five hypothesised AV domains, with a minimum of five marker variables per dimension created to provide a scale with a stable solution (Tabachnick & Fidell, 2013). Items were developed by authors KG, ST and JF. Where possible, words and phrases from original interview transcripts and quotations in relevant articles were used. The initial scale contained 74 items and asked about AV experiences over the past week. A five point Likert scale assessing level of agreement with each item was selected to provide a response continuum measuring direction, attitude intensity and neutrality (Likert, 1932). Five categories were also above the recommended minimum threshold to obtain adequate quality of information and reliability of items (Alwin, 1992; Miller, 1956). Points on the scale were labelled: 1 - ‘strongly disagree’, 2 – ‘disagree’, 3 – ‘neither agree nor disagree’, 4 – ‘agree’, 5 - ‘strongly agree’. A description of the AV was included at the beginning of the scale, to provide context. This was brief to avoid unduly influencing participants’ own perceptions of their experiences. To capture variations in individual experiences, participants were asked to report on: lifetime and current experience of an AV, and qualitative aspects such as identity (e.g. who’s voice), AV gender, how they referred to the AV, and if the AV emerged prior to or following weight loss behaviour.

Face validity, content validity and scale refinement

Participants

Six women with a diagnosis of AN involved in the earlier qualitative interviews who consented to be contacted about this stage took part (see Table 1). A seventh female participant residing at the inpatient ED department where the original qualitative interviews had taken place expressed an interest and also consented to participate. Interviews were carried out at a range of locations according to participant preference, and lasted between 30 and 60 minutes.

[Table 1 here]
Cognitive interviews

Cognitive interviews are shown to improve questionnaire design (Willis & Artino, 2013), and were carried out with individuals with a diagnosis of AN to confirm that items were relevant, that all facets of the AV were represented, and to identify potential sources of response error in the EAVE-Q. A standardised interview protocol was developed using existing guidelines (Willis, 2005; see Appendix 6), with both the ‘think aloud’ and ‘concurrent verbal probing’ methods used. Participants were asked to complete a paper version of the EAVE-Q, talking through their thinking and decision processes for each question. If not already elicited, a series of standard questions were then asked for each item before moving onto the next. Questions probed key cognitive processes including: comprehension and interpretation of items; ease of recalling requested information and recall strategies used; decision processes, including the potential for socially desirable responses; and the ability to adequately match internal responses to given response categories. There is evidence that precision and validity of measurement increases as response categories increase (Alwin, 1997; Preston & Colman, 2000), so participants were asked for their views on the use of a seven point Likert scale. Feedback from each interview was incorporated into the questionnaire and checked with subsequent participants. As an additional step, the scale was reviewed at a therapy group by four individuals with a diagnosis of AN receiving inpatient treatment at a specialist ED unit.

Results

Feedback suggested that it would be difficult to discriminate meaningfully between additional categories; therefore, a five point response scale was retained. Based on consensus between participants, seven items were re-phrased due to ambiguity of interpretation, and one was deleted where a consensus on clear wording could not be reached. Items were reported to have high face validity. Content validity was also good, although four additional items were added to capture perceived missing aspects of the AV experience. The final scale had 77 items (see Table 2 and Appendix 7). No individual items were found to cause distress, although participants reported the scale led to reflections on their stage of recovery. Additional review by the therapy group indicated that the information at the start of the EAVE-Q contextualised the questionnaire sufficiently, the
scale adequately reflected their own experiences of the AV, and that it was easy to understand and complete.

[Table 2 here]

**Stage 2 – Psychometric analysis**

**Sample**
A minimum sample size approach was adopted, with a recruitment target of 150 participants, as this was above the absolute minimum criteria of 100 required for FA (Kline, 1994) and would allow for the reliable detection of correlations of ≥ .22 with an alpha level of .5 and power at .80 for other planned analyses. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO; Kaiser, 1974) was also calculated, with a minimum KMO of .5 indicating adequate sample size for factor analysis (FA; Hutcheson & Sofroniou, 1999). Participants aged ≥ 16 years were eligible, because mid-adolescence is a key time for onset of AN (Fairburn & Harrison, 2003). Participants were required to self-report a diagnosis of AN, and to obtain a global mean score of ≥ 3.5 on the Eating Disorders Examination Questionnaire (EDE-Q, Fairburn & Beglin, 1994), which is within 0.5 of a standard deviation (SD) from the mean global EDE-Q score established in a previous study with a large AN sample seeking treatment (Aardoom, Dingemans, Slof Op’t Landt & Van Furth, 2012). BMI was not used to determine eligibility as there is evidence that weight restoration alone is not sufficient for recovery from AN (Fichter, Quaflieg & Hedlund, 2006; Accurso, Ciao, Fitzsimmons-Craft, Lock & Le Grange, 2014). In total, 376 participants provided consent to take part and 285 (75.80%) completed at least part of the screening process (see Figure 1). The final sample (n = 148) were largely recruited online (n = 129) and through NHS and voluntary organisations (n = 19). The overall KMO for the EAVER-Q was .85, with KMOs for individual items ranging from .69 to .92.

[Figure 1 here]
**Measures**

Clinical history information and measures of ED symptom severity were used for diagnostic purposes and to assess construct validity of the EAVE-Q, together with measures of psychological distress and QoL. Adequate internal consistency was viewed as Cronbach’s Alpha (CA; Cronbach, 1951) $\alpha \geq .65$, as Alphas <.70 are expected for measures assessing psychological constructs (DeVellis, 2003, Kline, 1999).

*Background questionnaire (Appendix 8)*

This collected relevant sociodemographic data and screened for eligibility. Information regarding predictors of AN severity were recorded, including age of onset, length of illness, BMI and total time in treatment (Schneider, Fisher, Weinerman & Lesser, 2002; Treasure & Russell, 2011).

*The Eating Disorder Examination Questionnaire 6.0 (EDE-Q; Fairburn & Beglin, 1994; Appendix 9)*

A 33 item scale to assess disordered eating over a 28-day period and likely caseness of AN. Higher scores indicate increased symptom severity. The EDE-Q is accurate in discriminating between those with and without an ED diagnosis (Aardoom et al., 2012; Berg, Peterson, Frazier & Crow, 2012). CA for EDE-Q global scores in the current sample was $\alpha = .81$.

*The Structured Clinical Interview for Diagnosis, ED Module I (SCID-DSM-5 Research Version; APA 2013; Appendix 10)*

A structured interview used to validate AN diagnosis following completion of the questionnaires in a sub-group of respondents during individual phone interviews carried out by the first author (see Procedure section). A BMI of $\leq 18.5$ was used to indicate ‘significantly low weight’ on the SCID based on current guidance (National Obesity Observatory, UK, 2009). A proportion of interviews (20%) were rated independently by a second researcher to assess reliability. Inter-rater agreement for AN diagnosis was 100%.
**Depression Anxiety Stress Scale (DASS-21; Lovibond & Lovibond, 1995; Appendix 11)**

A 21 item scale measuring distress over the past week on three subscales (depression, anxiety and stress), with higher scores indicating more severe symptoms. Internal consistency for the DASS-21 in the present study was high (total scale: \( \alpha = .92 \); subscales: \( \alpha = .80 \) to \( \alpha = .92 \)).

**World Health Organisation Quality of Life Assessment (WHOQOL-BREF; Skevington, Lotfy & O’Connell, 2004; Appendix 12)**

A 26 item measure assessing QoL over the previous four weeks in four domains: physical health, psychological health, social relationships and environmental, with higher scores indicating better QoL. Internal consistency for this sample was acceptable to good, with \( \alpha = .89 \) for the total scale, and \( \alpha = .65 \) to \( .82 \) for individual domains.

**Procedure**

This was a cross-sectional, questionnaire-based study, with an optional telephone interview using the SCID-DSM-5 to confirm diagnosis at a later point. Participants were recruited through flyers distributed to UK NHS ED services, and charities and service user groups across the UK, Australia, Canada, and America (see Appendix 13). The study was also advertised on social media and online ED forums. Participants visited the study website, or requested information via post (n = 2), to take part, and provided informed consent in writing or online. To confirm eligibility the background questionnaire was completed, followed by the EDE-Q. Eligible participants were directed to the main study page, or sent the study measures via post according to preference. The EAVE-Q was completed first, followed by the DASS-21 and WHOQOL-BREF presented in random order. Following completion of the questionnaires, participants provided optional consent for the SCID-DSM-5 interview or permission to contact a qualified clinician to validate diagnosis of AN. All SCID interviews (n = 64) were completed by the first author and audio-recorded, with participant consent. Participants had the option to enter a free prize draw to win £75 of online vouchers as compensation for their time.
Data analysis

Exploratory factor analysis

Redundant items were identified and deleted if: a) one response category was used by >50% of respondents; b) two response categories were used by <10% of respondents; or c) the neutral response category was used by >30% of the sample (Benson & Vincent, 1980; McSharry, Bishop, Moss-Morris, Holt & Kendrick, 2015). Remaining items with inter-item correlations (IICs) >.30 and <.90 (Tabachnick & Fidell, 2013) were included for FA. Bartlett’s test of sphericity was calculated, with a significant result indicating FA was likely to be meaningful. Exploratory FA was used to analyse and consolidate variables within the scale. Principal axis factoring (PAF) was used for factor extraction as individual items were moderately skewed (Fabrigar, Wegener, MacCallum & Strahan, 1999). Parallel analysis (PA; Horn, 1965) was used to determine factor retention as this is the most accurate method with samples <200 (Velicer & Jackson, 1990). PA compares observed eigenvalues to those occurring in a random dataset with an equal sample size and the same number of variables. Only eigenvalues larger than those occurring by chance were retained. Promax rotation aided interpretation as correlations between factors were predicted. Items with no factor loadings >.40 were removed (Stevens, 2002) and items cross-loading on two or more factors >.32 were also deleted because complex variables make interpretation ambiguous (Tabachnick & Fidell, 2013). A minimum criteria of three variables per factor was specified (Costello & Osborne, 2005). Theoretical dimensionality underpinned decisions regarding the retention and deletion of items. Individual subscales were assessed and items with corrected item-total correlations (ITCs) <.30 were removed (Hair, Anderson, & Tatham, 1995; Tabachnick & Fidell, 2013). PAF was repeated following the removal of any variables to assess changes in the factor structure. Very high between-factor correlations were considered suggestive of overlapping dimensions better explained by a single factor and that FA was not complete. CAs for the total scale and individual subscales were calculated.

Construct Validity

Correlations between total and subscale EAVE-Q scores and clinical outcomes (DASS-21, WHOQOL-BREF, EDE-Q and BMI) were calculated using Spearson’s Rho (r) due to non-parametric data. The proportion of variance accounted for ($R^2$) was calculated for significant correlations to aid
interpretation of importance. Correlations between EAVE-Q scores which accounted for more than 50% of the variance in other clinical outcomes were assessed as indicating the EAVE-Q was likely measuring an overlapping, rather than a unique, psychological construct (Hinken, Tracey & Enz, 1997).

Sensitivity analyses
This study included a proportion of participants who were below the clinical threshold for AN as eligibility was not defined by BMI. To assess how representative the sample were of a clinical population, participants with a validated diagnosis (n = 50) were compared to participants with self-report data and BMI ≤ 18.5 (n = 54). Differences between groups for continuous variables (age, BMI, DASS-21 scores, WHOQOL-BREF scores) were compared using the independent t-test. Differences in categorical variables (gender, current treatment and length of treatment) were explored using Chi Square analyses. The ability of the EAVE-Q to discriminate between those above and below clinical threshold for AN was assessed within the full sample using the t test to compare EAVE-Q scores when participants were separated into a ‘clinical’ group (validated diagnosis of AN or BMI < 18.5; n = 104) and a ‘sub-threshold’ group (BMI >18.5; n = 44).

Results
Sample characteristics
The final sample (n = 148; see Table 3) was predominantly female (97%), with an average BMI within the underweight category (<18.50). Most participants were white (86%) and originated from the UK (71%). On average, participants were in the severe range for depression, anxiety and stress. Mean QoL scores were lowest for the psychological domain on the WHOQOL-BREF, which is consistent with the literature (Baiano et al., 2014).

[Table 3 here]

Exploratory Factor analysis
Redundant items (n = 44) were removed. All remaining items (n = 33) had IICs >.30 and <.90 and were included for FA. Bartlett’s test of sphericity was highly significant (p <.0001), indicating
FA was appropriate. Items retained for FA used the entire response scale, indicating good scale to sample targeting. PA indicated seven factors occurring above chance, which were initially retained (see Figure 2). Items with no factor loadings > .40 were removed (n = 7). Two of the initial seven factors had only two items loading > .40 and were deleted (n = 4 items). Four items cross-loading > .32 were also deleted. In total, eight PAF analyses were required to find the most interpretable factor structure with the fewest items and adequate internal consistency. PAF analyses were run with seven, six, five and four factors selected for extraction with the remaining 18 items. The five factor solution provided the best fit for the data (see pattern matrix, Table 4), with 54.83% of the total variance explained and average communalities of .55.

[Table 4 here]

[Figure 2 here]

**Interpreting factors**

Although the five factor model was consistent with the proposed theoretical model of the EAVE-Q, the factors extracted were not identical to those predicted. Factors 1 and 2 encompassed hypothesised benefits of the AV, but were clearly distinguishable dimensions. Factor 1, labelled ‘benefits of adhering to the AV’, related to the positive consequences of adhering to the AV’s demands and was linked to feelings of control and positive emotions. Factor 2, labelled ‘the compassionate AV’, appeared to represent a more supportive function, linked to feelings of being comforted and understood by the AV. Originally hypothesised as a dimension of recovery, Factor 3, whilst encompassing items theorised to load onto this factor, seemed more specifically characterised by items which involved mistrust and distancing the self from others, and so was labelled ‘turning away from others’. Factor 4 represented an externalising/identity dimension, capturing the extent to which individuals identified the AV as part of, or external to, themselves. This factor was as hypothesised and retained the original label of ‘externalising the AV’. Similarly, Factor 5 had items loading onto it which were proposed to underpin a powerful and dominant domain. The label ‘dominated by the AV’ was felt to encapsulate this factor appropriately. The hypothesised ‘negative consequences of engaging with the AV’ was not found, with these aspects
of the AV potentially subsumed within other factors, such as ‘turning away from others’ and ‘dominated by the AV’.

Reliability
CA for the full scale was $\alpha = .83$. All subscales had good internal consistency (see Table 5), with ITCs $>.30$ and CAs ranging from $\alpha = .70$ to $\alpha = .85$.

Construct validity
Moderate correlations between factors were predicted and suggested EAVE-Q domains measured a shared, higher order construct (the AV). No two factors were so highly correlated that they were likely to have been better explained by a single factor (see factor correlation matrix, Table 6). In general, factors had small to moderate correlations, as would be expected in a multidimensional scale. ‘Benefits of adhering to the AV’ and ‘the compassionate AV’ domains were largely correlated, which is consistent with the hypothesis that these are both positive functions of the AV. However, items did not cross-load on to the other dimension $>.32$ and so were retained as separate factors. ‘The compassionate AV’ dimension correlated moderately with ‘turning away from others’, indicating the experience of a supportive AV was associated with people withdrawing from external support. ‘Externalising the AV’ correlated to some extent with ‘the compassionate AV’ and the ‘dominated by the AV’ domains. ‘Externalising the AV’ and ‘benefits of adherence’ were uncorrelated, suggesting the extent to which individuals see the AV as part of themselves or as a separate entity does not relate to positive appraisals of the AV experience.

Associations between EAVE-Q domains and clinical outcomes
Correlations between EAVE-Q domains and clinical outcomes are reported (see Table 7). The proportion of variance in clinical outcomes explained by EAVE-Q domain scores is also provided (see Table 8). Significant correlations between EAVE-Q domains and other clinical outcomes ranged from small to moderate. A significant proportion of the variance in EDE-Q scores was
explained by scores on the ‘dominated by the AV’, ‘turning away from others’ and ‘the compassionate AV’ subscales. These were all moderately and positively correlated with ED symptoms. ‘Benefits of adherence’ was also positively correlated with EDE-Q scores, although to a lesser extent.

‘Turning away from others’ was positively and moderately associated with depression, anxiety and stress on the DASS-21. All domains on the DASS-21 had small, but significant, positive correlations with scores on the ‘dominated by the AV’ dimension, with correlations approaching a moderate association for the DASS-21 stress subscale. ‘The compassionate AV’ domain correlated positively with anxiety scores on the DASS-21 only, whilst ‘benefits of adherence’ did not correlate well with any subscales on the DASS-21.

‘Turning away from others’ was significantly and negatively associated with all domains of the WHOQOL-BREF, being most associated with scores on the psychological domain which includes questions about self-acceptance and the meaning and enjoyment of life. All WHOQOL-BREF domains correlated negatively with ‘dominated by the AV’ scores, most notably the psychological domain and the social domain, which records satisfaction with relationships and support. In contrast, the ‘benefits of adherence’ scale had small, positive associations with WHOQOL-BREF physical, psychological and environmental domains, although only the environmental domain achieved significance. The environmental scale on the WHOQOL-BREF includes questions about access to health services, financial security and opportunities for leisure activities. ‘The compassionate AV’ had small negative correlations with psychological and social domains on the WHOQOL-BREF, but these were not approaching significance. BMI was not significantly associated with any of the EAVE-Q domains. The ‘externalising the AV’ scale was also not correlated with any clinical outcomes, which raised questions about its clinical utility.

[Table 7 here]
[Table 8 here]

Sensitivity analyses
Sixty-four participants completed the SCID and five more had their diagnosis verified by their health professional. Of those, 50 participants met full criteria for AN; 36 for AN restricting type and
Fourteen people were sub-threshold for AN on the SCID due to having BMI >18.5 or failing to meet full criteria for fear of weight gain or disturbance of weight or shape. Participants with a validated diagnosis of AN (n = 50, mean age = 32.14 years) were significantly older than those who were underweight with self-report data only (n = 54, mean age = 25.35 years; t(102) = 3.14, p = .002; MD = 6.79, 95% CI = 2.49 - 11.08). However, groups did not differ significantly on any other outcomes, suggesting similar severity of AN and psychological distress. This indicates that participants with self-report data and BMI ≤18.5 were generally representative of a clinical AN sample. There was no significant difference in EAVE-Q scores for the ‘clinical group’ (participants with a validated diagnosis or BMI ≤18.5; n = 104) and those who were ‘sub-threshold’ for AN (BMI >18.5; n = 44) (see Table 9). Therefore, whilst linked to ED symptoms and psychological distress, endorsement of AV experiences was not associated with lower weight. Finally, one outlier (>3 times the interquartile range) was identified based on mean EAVE-Q scores. All analyses were completed with and without this person’s data, and found no difference in the factor structure of the EAVE-Q, which appeared robust within this sample, or its associations with clinical outcomes.

[Table 9 here]

Discussion

This paper describes the development and analysis of the first scale measuring the AV. Exploratory FA resulted in 18 items organised into five domains to form the EAVE-Q (see Appendix 14). As predicted, domains pertaining to ‘externalising the AV’ and ‘dominated by the AV’ were identified, capturing the duality and powerlessness associated with experiences of the AV reported in the literature (e.g. Tierney & Fox, 2010). The hypothesised domain of ‘the AV as a barrier to recovery’ was not found, but instead, the dimension ‘turning away from others’ was elicited, underpinned more specifically by beliefs about trust and self-worth in relationships. The hypothesised dimension of the AV having a positive function was identified, but was found to be better conceptualised as two separate domains. ‘The compassionate AV’ encapsulated a supportive function of the AV, whilst ‘benefits of adhering to the AV’ encompassed positive consequences of engagement. The hypothesised negative consequences of the AV domain had unexpected nuances, and was
differentiated as negative internal consequences in the ‘dominated by the AV’ domain, and negative social consequences in the ‘turning away from others’ dimension. Internal consistency for the EAVE-Q was high for this sample, who predominantly met clinical threshold for AN, indicating that the scale was reliably measuring the AV construct.

Construct validity for the EAVE-Q was good. With the exception of the ‘externalising the AV’ subscale, all dimensions were significantly positively correlated with EDE-Q scores, suggesting that the AV is an important clinical feature of AN. No correlations accounted for more than 50% variance in EDE-Q scores, indicating that the AV is not just another way of conceptualising cognitive and behavioural symptoms of AN (Hinken et al, 1997) but a separate phenomenon (Pugh, 2016). This supports assertions that the AV may drive weight-related attitudes and weight management behaviour (Higbed & Fox, 2010; Tierney & Fox, 2010), although causality cannot be assumed due to the cross-sectional nature of this study.

As predicted, there were significant correlations between EAVE-Q domains and psychological distress. The ‘turning away from others’, and ‘dominated by the AV’ domains were found to have significant small to moderate positive associations with depression, anxiety and stress scores on the DASS-21 and reduced QoL on the WHOQOL-BREF. The largest effects were found for associations with psychological and social WHOQOL-BREF domains. This is logical, as the WHOQOL-BREF social domain measures satisfaction with relationships, which would not be expected for people endorsing the ‘turning away from others’ subscale. The psychological WHOQOL-BREF domain includes items assessing self-acceptance and satisfaction with weight and shape, which would also not be predicted for people endorsing the ‘dominated by the AV’ scale, as perceptions of being ‘taken over’ and powerless to resist the AV have been associated with feelings of failure, guilt and shame elsewhere (Tierney & Fox, 2011). ‘Benefits of adherence’ had small positive associations with three of the four WHOQOL-BREF subscales, although only associations with the environmental subscale reached significance. This may be due to this WHOQOL subscale including questions about satisfaction with access to health services. Given that 66% of the sample was receiving current treatment, and that this domain was linked with more severe ED symptoms, one ‘benefit’ of the AV may be access to professional support.

There were no significant associations between ‘benefits of adherence’ and DASS-21 scores, or ‘the compassionate AV’ and WHOQOL-BREF scores. This is potentially surprising, as the
literature would suggest that the positive functions of the AV are the avoidance of painful emotions and the protection of self-esteem (Tierney & Fox, 2010; Tierney & Fox, 2011; Williams & Reid, 2012), and so negative relationships between these domains and distress, and positive associations with QoL were expected. The lack of any association may be due to the AV having both positive and negative functions and consequences, with the negative aspects cancelling out the supportive and protective functions of the AV. Furthermore, there was a small positive correlation between the DASS-21 anxiety subscale and ‘the compassionate AV’ subscale, and a small negative correlation between ‘the compassionate AV’ domain and QoL, which was counter-intuitive. The size of these associations indicates future research with a larger sample is required to assess if they are robust. If so, this could be reflective of the tension between the AV’s positive and negative aspects. Potentially as anxiety increases, endorsement of the AV as supportive and comforting also increases, as people turn to a trusted and relied upon coping strategy (Tierney & Fox, 2010).

The literature suggests that externalising the AV could be a key part of the recovery process, and therefore positive associations with QoL and negative associations with psychological distress and ED symptoms were predicted. However, no associations were found between this dimension and any clinical outcomes, raising questions about its clinical utility. This again may be representative of the reported duality of the AV (Higbed & Fox, 2010), which may lead to a cancelling out of either positive or negative effects in practice. Limited sample size and the non-parametric distribution of items within the scale may also mean that some items lacked variability and more subtle associations may have been missed. Whether associated with clinical outcomes or not, perhaps a more relevant question is the utility of this domain in understanding the experience of the AV. As this was a robust dimension in FA, it is considered prudent to retain this domain for further analysis in future research.

The EAVE-Q did not distinguish between clinical and sub-threshold participants on the basis of BMI, which is perhaps not surprising given that only participants with clinically relevant scores on the EDE-Q were included, and that psychological recovery does not co-occur with weight restoration alone (Fichter et al., 2006; Le Grange et al., 2013). However, the accuracy of self-reported weight is a potential confound, as research regarding accuracy of weight reporting is
contentious for clinical and recovered AN samples (McCabe, McFarlane, Polivy & Olmsted, 1999; Wolfe, Kelly-Weeder, Malcolm & McKenery, 2013).

**Limitations**
The non-parametric distribution of individual EAVE-Q items means that results of FA are restricted to the study sample only (Field, 2005). Assessment of test retest reliability was also not performed. Therefore, the factor structure of the EAVE-Q requires replication in future research with different AN samples to examine its stability. The sample was predominantly White British (70%) and female (97%), meaning results may not be generalisable to individuals with AN from other cultures or male genders. Only associations between EAVE-Q domains and clinical outcomes were assessed here, which does not equate causality. Further research is required to determine to what extent the AV, as assessed by the EAVE-Q, mediates clinical outcomes, such as ED symptoms, depression and anxiety, and use of ED services.

**Clinical Implications**
This study provides evidence for the clinical importance of the AV in AN. The EAVE-Q was associated with increased ED symptom severity, increased psychological distress, and decreased QoL. Therefore, targeting the AV in clinical practice may be beneficial. The EAVE-Q could be used to introduce discussions about the AV within clinical settings, promoting shared understandings and formulations between clients and professionals. As the current recommended psychological treatment for AN is cognitive behavioural therapy (NICE, 2004), the EAVE-Q could also be used to assess the ability of existing interventions to target the AV in therapy.

**Implications for Future Research**
This study provides a refined scale ready for validation in other AN samples using confirmatory FA. In particular, further research is required to determine if the ‘externalising the AV’ domain is a key facet of the AV, and to clarify patterns of associations with clinical outcomes and their meaning. The EAVE-Q was not found to discriminate between those above and below threshold for AN based on BMI, but was significantly related to severity of ED symptoms and psychological distress. As
such, a more meaningful task for future research is to assess whether the EAVE-Q can distinguish between participants based on continuous correlations of AN.

Considering the lack of recent studies exploring novel treatment strategies in AN (Lipsman, Woodside & Lozano, 2014), the development and assessment of psychological approaches which target the AV directly is a worthwhile prospect for future research. A potential starting point for this is EFT (Greenberg & Johnson, 1988), as there is evidence that EFT techniques which explicitly target the harshness of the AV and associated responses can reduce depression and ED symptoms (Dolhanty & Greenberg, 2009). The EAVE-Q could be used to measure if reductions in AV endorsement mediate these outcomes.

Finally, this study does not propose the AV is a universal experience, and it is hoped that the EAVE-Q will prove a helpful tool in aiding researchers and clinicians to further explore and understand this aspect of AN, including assessing the prevalence of the AV.

**Conclusions**

When considering new directions for future research and treatment in AN, it is important to consider the priorities and perspectives of those experiencing this ED. The EAVE-Q is the first stage in the development of a reliable and valid measure of the AV based on experiences of individuals with a diagnosis of AN. The EAVE-Q provides a tool which it is hoped will aid the continuing development of patient-centred research and effective interventions in AN.
Acknowledgments

The authors would like to thank staff and colleagues at the following services for supporting this study: Beating Eating Disorders (Beat), Cardiff and Vale University Health Board, Central and North West London NHS Foundation Trust, Cwm Taff University Health Board, Greater Manchester West NHS Foundation Trust, Leeds and York Partnership NHS Foundation Trust, Manchester Mental Health and Social Care Trust, The National Association of Anorexia and Associated Eating Disorders (ANAD), The National Eating Disorders Association (NEDA), NHS Stockport, Tees, Esk and Wear Valleys NHS Foundation Trust.
References


Table 1. Cognitive interview sample characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>n = 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>26</td>
</tr>
<tr>
<td>Range</td>
<td>18 – 54</td>
</tr>
<tr>
<td>Ethnicity:</td>
<td></td>
</tr>
<tr>
<td>White British</td>
<td>7</td>
</tr>
<tr>
<td>Current treatment for AN</td>
<td>7</td>
</tr>
<tr>
<td>BMI &lt; 18.5</td>
<td>7</td>
</tr>
<tr>
<td>Place of interview</td>
<td></td>
</tr>
<tr>
<td>Participant’s home</td>
<td>2</td>
</tr>
<tr>
<td>Community location</td>
<td>3</td>
</tr>
<tr>
<td>Inpatient ward</td>
<td>2</td>
</tr>
<tr>
<td>Identity &amp; Externalising (n = 7)</td>
<td>Negative consequences of engaging with the AV (n = 13)</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>* I experience my AV as thoughts that are not my own</td>
<td>* My AV makes me feel weak</td>
</tr>
<tr>
<td>* My AV is like hearing someone else's thoughts and feelings</td>
<td>* My AV is a negative part of my life</td>
</tr>
<tr>
<td>* My AV is part of who I am</td>
<td>* My AV is harmful to me</td>
</tr>
<tr>
<td>* I see my AV as separate from my own identity</td>
<td>* My AV makes me act like someone I don't want to be</td>
</tr>
<tr>
<td>* My AV is always the same gender</td>
<td>* My AV makes me feel isolated</td>
</tr>
<tr>
<td>* My AV reminds me of someone I know</td>
<td>* I feel angry with my AV</td>
</tr>
<tr>
<td>* I see my AV as something that shouldn't be there</td>
<td>* My AV makes me feel angry or frustrated with myself</td>
</tr>
<tr>
<td>* My AV makes me feel angry or frustrated with other people</td>
<td>* My AV makes me think that life isn't worth living</td>
</tr>
<tr>
<td>* My AV distresses me</td>
<td>* My AV makes me secretive and hide things from other people</td>
</tr>
<tr>
<td>* My AV makes it hard for me to maintain relationships with others</td>
<td>* I can ignore my AV if I really want to</td>
</tr>
<tr>
<td>* When I hear my AV negative images come into my mind</td>
<td>* My AV makes me think I don't deserve other people's help</td>
</tr>
<tr>
<td>* Treatment should help me manage my AV</td>
<td>* My AV makes me believe I don't deserve food</td>
</tr>
<tr>
<td></td>
<td>* I need to get rid of my AV to feel like I have completely recovered</td>
</tr>
<tr>
<td></td>
<td>* Treatment should help me manage my AV</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>n / value</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>27.74 years</td>
</tr>
<tr>
<td>Range</td>
<td>16 – 63</td>
</tr>
<tr>
<td><strong>Gender ratio</strong></td>
<td>M/F</td>
</tr>
<tr>
<td>4 / 144</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>127</td>
</tr>
<tr>
<td>Asian</td>
<td>2</td>
</tr>
<tr>
<td>Chinese</td>
<td>2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
</tr>
<tr>
<td>Black Caribbean</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td>Missing</td>
<td>12</td>
</tr>
<tr>
<td><strong>Country of origin</strong></td>
<td></td>
</tr>
<tr>
<td>Europe (UK)</td>
<td>113 (105)</td>
</tr>
<tr>
<td>USA</td>
<td>26</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
</tr>
<tr>
<td>Australia</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>GCSE or equivalent</td>
<td>27</td>
</tr>
<tr>
<td>A-level or equivalent</td>
<td>34</td>
</tr>
<tr>
<td>Degree level or equivalent</td>
<td>67</td>
</tr>
<tr>
<td>Missing</td>
<td>20</td>
</tr>
<tr>
<td><strong>Age at first AN symptoms</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>15.09 years</td>
</tr>
<tr>
<td>Range</td>
<td>5 – 39 years</td>
</tr>
<tr>
<td><strong>Age at diagnosis</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>19.95 years</td>
</tr>
<tr>
<td>Range</td>
<td>11 – 49</td>
</tr>
<tr>
<td>Missing</td>
<td>n = 1</td>
</tr>
<tr>
<td><strong>Current treatment for AN</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>48</td>
</tr>
<tr>
<td><strong>Ever treated for AN</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>141</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
</tr>
<tr>
<td><strong>Length of AN treatment</strong></td>
<td></td>
</tr>
<tr>
<td>Never treated</td>
<td>7</td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>20</td>
</tr>
<tr>
<td>1 – 2 years</td>
<td>38</td>
</tr>
<tr>
<td>3 – 4 years</td>
<td>25</td>
</tr>
<tr>
<td>5 – 6 years</td>
<td>17</td>
</tr>
<tr>
<td>&gt; 6 years</td>
<td>39</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
</tr>
<tr>
<td><strong>Current BMI</strong></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>17.61 (2.44)</td>
</tr>
<tr>
<td>Range</td>
<td>13.17 – 25.53</td>
</tr>
<tr>
<td><strong>EDE-Q: Mean (SD)</strong></td>
<td></td>
</tr>
<tr>
<td>Global score</td>
<td>4.86 (0.69)</td>
</tr>
<tr>
<td><strong>DASS-21: Mean (SD)</strong></td>
<td></td>
</tr>
<tr>
<td>Total score</td>
<td>36.23 (12.85)</td>
</tr>
<tr>
<td>Depression</td>
<td>13.46 (5.70)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>9.42 (4.98)</td>
</tr>
<tr>
<td>Stress</td>
<td>13.35 (4.57)</td>
</tr>
<tr>
<td><strong>WHOQOL-BREF: Mean (SD)</strong></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>51.84 (16.99)</td>
</tr>
<tr>
<td>Psychological</td>
<td>25.39 (16.59)</td>
</tr>
<tr>
<td>Social relationships</td>
<td>39.04 (22.07)</td>
</tr>
<tr>
<td>Environment</td>
<td>61.46 (17.46)</td>
</tr>
<tr>
<td>Q1: Quality of life</td>
<td>2.93 (1.02)</td>
</tr>
<tr>
<td>Q2: Health</td>
<td>2.29 (0.96)</td>
</tr>
</tbody>
</table>
Table 4. Promax pattern matrix for the five factor solution with 18 items (n = 148)

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>My AV makes me feel in control</td>
<td>.837</td>
<td>-.063</td>
<td>-.082</td>
<td>.096</td>
<td>-.106</td>
</tr>
<tr>
<td>My AV gives me a positive sense of routine and order in my life</td>
<td>.754</td>
<td>-.011</td>
<td>.033</td>
<td>.021</td>
<td>-.051</td>
</tr>
<tr>
<td>Doing what AV says makes me feel happy</td>
<td>.630</td>
<td>.029</td>
<td>.055</td>
<td>-.116</td>
<td>.044</td>
</tr>
<tr>
<td>Doing what AV says makes me feel satisfied</td>
<td>.626</td>
<td>.057</td>
<td>-.010</td>
<td>-.047</td>
<td>.135</td>
</tr>
<tr>
<td>My AV makes me feel confident</td>
<td>.499</td>
<td>.111</td>
<td>-.032</td>
<td>-.024</td>
<td>-.042</td>
</tr>
<tr>
<td>My AV is supportive</td>
<td>-.091</td>
<td>.826</td>
<td>-.005</td>
<td>.058</td>
<td>-.123</td>
</tr>
<tr>
<td>My AV is comforting</td>
<td>.094</td>
<td>.788</td>
<td>-.137</td>
<td>.020</td>
<td>.047</td>
</tr>
<tr>
<td>My AV is a friend to me</td>
<td>.098</td>
<td>.759</td>
<td>.079</td>
<td>-.004</td>
<td>-.035</td>
</tr>
<tr>
<td>My AV understands me when other people don't</td>
<td>.114</td>
<td>.548</td>
<td>.140</td>
<td>-.058</td>
<td>.104</td>
</tr>
<tr>
<td>My AV makes me think other people just want me to get fat</td>
<td>.094</td>
<td>-.127</td>
<td>.899</td>
<td>-.007</td>
<td>-.137</td>
</tr>
<tr>
<td>My AV tells me not to trust other people</td>
<td>-.053</td>
<td>.071</td>
<td>.861</td>
<td>.017</td>
<td>.033</td>
</tr>
<tr>
<td>My AV makes me think I don't deserve other people's help</td>
<td>-.123</td>
<td>.098</td>
<td>.455</td>
<td>.021</td>
<td>.137</td>
</tr>
<tr>
<td>I experience my AV as thoughts that are not my own</td>
<td>.075</td>
<td>-.073</td>
<td>.011</td>
<td>.922</td>
<td>.023</td>
</tr>
<tr>
<td>I see my AV as separate from my own identity</td>
<td>-.134</td>
<td>.113</td>
<td>-.071</td>
<td>.672</td>
<td>-.099</td>
</tr>
<tr>
<td>My AV is like hearing someone else's thoughts and feelings</td>
<td>.024</td>
<td>.025</td>
<td>.121</td>
<td>.576</td>
<td>.132</td>
</tr>
<tr>
<td>It doesn't matter what I do my AV always wins</td>
<td>.047</td>
<td>-.062</td>
<td>-.003</td>
<td>-.029</td>
<td>.795</td>
</tr>
<tr>
<td>I can ignore my AV if I really want to (reversed)</td>
<td>-.167</td>
<td>-.013</td>
<td>.002</td>
<td>-.022</td>
<td>.639</td>
</tr>
<tr>
<td>My AV controls me</td>
<td>.102</td>
<td>-.001</td>
<td>-.031</td>
<td>.089</td>
<td>.606</td>
</tr>
</tbody>
</table>

NB Extraction method: Principal axis factoring; Rotation: Promax with Kaiser normalisation. Items in bold type and underlined are items loading onto each factor > .40
Table 5. Reliability coefficients of the scales derived from FA

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Number of items</th>
<th>α</th>
<th>ITC range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Benefits of adhering to the AV</td>
<td>5</td>
<td>0.81</td>
<td>0.48 – 0.66</td>
</tr>
<tr>
<td>2. The compassionate AV</td>
<td>4</td>
<td>0.85</td>
<td>0.62 – 0.77</td>
</tr>
<tr>
<td>3. Turning away from others</td>
<td>3</td>
<td>0.78</td>
<td>0.47 – 0.73</td>
</tr>
<tr>
<td>4. Externalising the AV</td>
<td>3</td>
<td>0.77</td>
<td>0.54 – 0.72</td>
</tr>
<tr>
<td>5. Dominated by the AV</td>
<td>3</td>
<td>0.70</td>
<td>0.49 – 0.57</td>
</tr>
</tbody>
</table>
### Table 6. Factor correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>Benefits of adherence</th>
<th>Compassionate AV</th>
<th>Turning away from others</th>
<th>Externalising the AV</th>
<th>Dominated by the AV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits of adherence</td>
<td>1.000</td>
<td>.568**</td>
<td>.277**</td>
<td>.095</td>
<td>.291**</td>
</tr>
<tr>
<td>Compassionate AV</td>
<td>.568**</td>
<td>1.000</td>
<td>.389**</td>
<td>.243*</td>
<td>.209*</td>
</tr>
<tr>
<td>Turning away from others</td>
<td>.277**</td>
<td>.389**</td>
<td>1.000</td>
<td>.201*</td>
<td>.297**</td>
</tr>
<tr>
<td>Externalising the AV</td>
<td>.095</td>
<td>.243*</td>
<td>.201*</td>
<td>1.000</td>
<td>.121</td>
</tr>
<tr>
<td>Dominated by the AV</td>
<td>.291**</td>
<td>.209*</td>
<td>.297**</td>
<td>.121</td>
<td>1.000</td>
</tr>
</tbody>
</table>

* Significant at the p < .01 level; ** Significant at the p < .001 level
Table 7. Correlations between EAVE-Q domains and clinical outcome measures

<table>
<thead>
<tr>
<th></th>
<th>EAVE-Q total score</th>
<th>Benefits of adherence</th>
<th>Compassionate AV</th>
<th>Turning away from others</th>
<th>Externalising the AV</th>
<th>Dominated by the AV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r_s</td>
<td>p value</td>
<td>r_s</td>
<td>p value</td>
<td>r_s</td>
<td>p value</td>
</tr>
<tr>
<td>BMI (n = 148)</td>
<td>.028</td>
<td>.732</td>
<td>.059</td>
<td>.473</td>
<td>.116</td>
<td>.161</td>
</tr>
<tr>
<td>EDE-Q Global Mean (n = 148)</td>
<td>.419</td>
<td>&lt;.001*</td>
<td>.234</td>
<td>.004*</td>
<td>.312</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>DASS-21 domains (n = 141):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total score</td>
<td>.246</td>
<td>.003*</td>
<td>-.040</td>
<td>.638</td>
<td>.150</td>
<td>.077</td>
</tr>
<tr>
<td>Depression</td>
<td>.142</td>
<td>.094</td>
<td>-.099</td>
<td>.243</td>
<td>.074</td>
<td>.383</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.275</td>
<td>.001*</td>
<td>.023</td>
<td>.782</td>
<td>.187</td>
<td>.027*</td>
</tr>
<tr>
<td>Stress</td>
<td>.222</td>
<td>.008*</td>
<td>.004</td>
<td>.966</td>
<td>.141</td>
<td>.153</td>
</tr>
<tr>
<td>WHOQOL-BREF Domains (n = 142):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>-.100</td>
<td>.238</td>
<td>.154</td>
<td>.068</td>
<td>-.017</td>
<td>.839</td>
</tr>
<tr>
<td>Psychological</td>
<td>-.148</td>
<td>.079</td>
<td>.117</td>
<td>.166</td>
<td>-.115</td>
<td>.173</td>
</tr>
<tr>
<td>Social</td>
<td>-.177</td>
<td>.035*</td>
<td>-.037</td>
<td>.665</td>
<td>-.117</td>
<td>.167</td>
</tr>
<tr>
<td>Environmental</td>
<td>-.053</td>
<td>.535</td>
<td>.196</td>
<td>.019*</td>
<td>.003</td>
<td>.976</td>
</tr>
</tbody>
</table>

NB As some variables were not normally distributed, all correlations reported are for Spearman’s correlation coefficient (r_s) for ease of interpretation, as a sensitivity analysis showed no significant difference in the size and direction of correlations or significance values when using Pearson’s r to calculate the associations between normally distributed variables; * denotes significant result; All moderate correlations are highlighted in bold for ease of interpretation.
Table 8. Percentage of variance in clinical outcome measures explained by EAVE-Q domain scores

<table>
<thead>
<tr>
<th></th>
<th>EAVE-Q total score</th>
<th>Benefits of adherence</th>
<th>Compassionate AV</th>
<th>Turning away from others</th>
<th>Externalising the AV</th>
<th>Dominated by the AV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2$</td>
<td>$R^2$ variance</td>
<td>$R^2$</td>
<td>$R^2$ variance</td>
<td>$R^2$ variance</td>
<td>$R^2$ variance</td>
</tr>
<tr>
<td>EDE-Q Global Mean (n = 148)</td>
<td>.176</td>
<td>17.56%</td>
<td>.054</td>
<td>5.48%</td>
<td>.097</td>
<td>9.73%</td>
</tr>
<tr>
<td>DASS-21 domains (n = 141):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total score</td>
<td>.060</td>
<td>6.05%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Depression</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.076</td>
<td>7.56%</td>
<td>-</td>
<td>-</td>
<td>.034</td>
<td>3.5%</td>
</tr>
<tr>
<td>Stress</td>
<td>.049</td>
<td>4.93%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>WHOQOL-BREF Domains (n = 142):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Psychological</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Social</td>
<td>.031</td>
<td>3.13%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental</td>
<td>-</td>
<td>-</td>
<td>.038</td>
<td>3.84%</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* Variances for all moderately correlated variables (≥ 9% variance explained) are highlighted in bold for ease of interpretation
Table 9. Comparison of EAVE-Q scores between 'clinical' and a 'subthreshold' group

<table>
<thead>
<tr>
<th>EAVE-Q Domain:</th>
<th>Clinical (n = 104) Mean (SD)</th>
<th>Subthreshold (n = 44) Mean (SD)</th>
<th>Test statistic (df)</th>
<th>p value</th>
<th>MD</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total EAVE-Q score</td>
<td>3.31 (0.68)</td>
<td>3.34 (0.54)</td>
<td>t (146) = 0.32</td>
<td>.748</td>
<td>0.04</td>
<td>-0.19 – 0.27</td>
</tr>
<tr>
<td>Benefits of adherence</td>
<td>3.39 (0.97)</td>
<td>3.50 (0.89)</td>
<td>t (146) = 0.64</td>
<td>.526</td>
<td>0.11</td>
<td>-0.23 – 0.44</td>
</tr>
<tr>
<td>The compassionate AV</td>
<td>2.80 (1.16)</td>
<td>3.09 (0.98)</td>
<td>t (146) = 1.44</td>
<td>.151</td>
<td>0.29</td>
<td>-0.11 – 0.68</td>
</tr>
<tr>
<td>Turning away from others</td>
<td>3.85 (1.04)</td>
<td>3.82 (0.90)</td>
<td>t (146) = -0.19</td>
<td>.849</td>
<td>-0.03</td>
<td>-0.39 – 0.32</td>
</tr>
<tr>
<td>Externalising the AV</td>
<td>2.86 (1.09)</td>
<td>2.75 (1.06)</td>
<td>t (146) = -0.56</td>
<td>.577</td>
<td>-0.11</td>
<td>-0.49 – 0.28</td>
</tr>
<tr>
<td>Dominated by the AV</td>
<td>3.73 (0.91)</td>
<td>3.54 (0.98)</td>
<td>t (146) = -1.17</td>
<td>.243</td>
<td>-0.20</td>
<td>-0.53 – 0.13</td>
</tr>
</tbody>
</table>
Figure 1.

- **Consent provided:** $n = 376$
  - **Excluded:** $n = 23$
    - No AN diagnosis: $n = 21$
    - Age < 16 years: $n = 2$

- **Screened for age & diagnosis:** $n = 285$
  - **Included in FA:** $n = 148$
    - **Excluded:** $n = 55$
      - EDE-Q global mean < 3.5: $n = 55$
  - **Excluded:** $n = 23$
    - No AN diagnosis: $n = 21$
    - Age < 16 years: $n = 2$
  - **Completed EDE-Q:** $n = 210$
    - **Excluded:** $n = 55$
      - EDE-Q global mean < 3.5: $n = 55$

- **Withdrawed prior to screening:** $n = 91$

- **Withdrawed without completing EDE-Q:** $n = 52$

- **Withdrawed without completing EAVE-Q:** $n = 7$

- **Withdrawed without completing:**
  - DASS-21 and / or WHOQOL-BREF: $n = 7$

- **Eligible:** $n = 262$
  - **Completed EDE-Q:** $n = 210$
  - **Included in FA:** $n = 148$
  - **Data for subsequent analyses:**
    - DASS-21: $n = 141$
    - WHOQOL: $n = 142$
  - **Participants consenting to validation of AN diagnosis:** $n = 89$

- **Eligible:** $n = 155$

- **Withdrawed without completing:**
  - DASS-21 and / or WHOQOL-BREF: $n = 7$

- **SCID-5 interview consent:** $n = 79$
  - SCID interview completed: $n = 64$
  - Unable to contact: $n = 15$

- **Health professional diagnosis:** $n = 10$
  - AN confirmed: $n = 5$
  - Unable to contact: $n = 5$
Figure 2.

Point beyond which factors occurred below chance and were not retained
Figure Captions

- **Figure 1.** Participant flow
- **Figure 2.** Comparison of the parallel analysis 95\textsuperscript{th} percentile eigenvalues and the raw data eigenvalues
Paper 3.

Critical Reflection

Word count: 4921
1. Introduction

Paper one is a thematic synthesis of qualitative literature exploring "inner speech" (IS) for individuals with lived experience of a diagnosed psychological disorder. Paper two is a two-stage quantitative study that describes the development and assessment of a novel scale, the Experience of an Anorexic VoicE Questionnaire (EAVE-Q). This paper (Paper 3) provides a critical appraisal of this research, considering methodological issues for each paper in turn, before discussing their results together to draw conclusions about the implications for theory, research and clinical practice. Issues which have been addressed within the individual papers are not repeated, although some important issues are elaborated further. Prior to discussing each paper, a general issue regarding the use of a diagnostic approach is addressed.

2. A diagnostic approach

Although this is a psychological thesis, inclusion criteria for Paper 1 and 2 were defined using a diagnostic approach. This is inconsistent with the current climate of clinical psychology, which is calling for a shift away from a 'disease model' (Division of Clinical Psychology (DCP), 2013). This is due to psychiatric diagnoses having limited reliability and validity in practice, which also applies to the diagnosis of AN (Thomas et al, 2015), and because diagnoses place artificial divides between normal and pathological experiences and behaviour (NIMH, 2013). In AN, psychiatric diagnoses are generally ineffective at guiding treatment or predicting outcomes, given the wide variation in responses to pharmacological and psychological treatments reported (Chakraborty & Basu, 2010; Galsworthy-Francis & Allen, 2014). Despite limitations of the diagnostic approach, the majority of research in AN to date assumes that diagnosis is relevant, which has provided a degree of consistency within the literature, enabling progression. In addition, diagnosis of AN does provide a severity marker, at least in terms of low weight and disordered eating behaviour, which has directed the organisation of services to support those most at risk. It is also important to note that some people with AN do find diagnosis useful, as it can validate difficulties and provide a sense of identity (Espindola & Blay, 2009). Whilst an alternative to the diagnostic approach is now called for, such approaches are in their infancy. Therefore, this thesis is guided by the current literature, adopting a diagnostic approach where necessary, but being mindful of the limitations this brings.
3. Thematic synthesis (Paper 1)

3.1 Justification for a qualitative review

This review defined IS as a dialogical activity, informed by the AV literature which describes the dialogical nature of the AV (Higbed & Fox, 2010; Tierney & Fox, 2010). A mixed-methods review was originally planned for this thesis. However, this was problematic for a number of reasons. Firstly, a large number of quantitative studies used neuroimaging techniques to monitor IS in the context of AVHs, providing evidence about the neurobiology of specific psychological symptoms, but not their role in psychological disorder more widely. Secondly, IS was often ambiguously defined in quantitative studies. For example, terms such as self-talk were used interchangeably to refer to talking to oneself both in silence and out-loud, with no clear distinction. Finally, it was often unclear if questionnaire-based studies measured dialogical IS directly, or thought content in IS more specifically. As such, a mixed-methods review was likely to be dominated by about a relatively limited area of the literature (AVHs), and include a wide range of IS experiences which were not clearly defined and may not be comparable. Therefore, a qualitative review was chosen where clear definitions of IS could be determined and questions regarding the role of dialogical IS across a range of psychological disorders could be explored.

3.2 The rationale for thematic synthesis

Thematic synthesis provides a transparent protocol to synthesise qualitative literature and answer questions which inform policy and practice. It has been found to hold the most potential for hypothesis generation compared to some other qualitative synthesis methods (Lucas, Arai, Baird, Law & Roberts, 2007), which was consistent with the aims of Paper 1. Thematic synthesis was selected as it combines meta-ethnography approaches (Noblit & Hare, 1988), including the generation of analytical themes, to ensure findings go beyond descriptions of the original data and develop new interpretations (Barnett-Page & Thomas, 2009). Thematic synthesis also uses grounded theory (GT) techniques (Glaser & Strauss, 1967) adopting an inductive and constant comparative approach, which ensures findings are grounded in the original data. However, unlike meta-ethnography and GT, thematic synthesis advocates for the inclusion of heterogeneous articles, allowing a broad range of analytical themes to be elicited (Barnett-Page & Thomas, 2009), which was imperative for Paper 1 where concepts relating to IS across a range of diagnostic groups and
contexts were sought. Finally, thematic synthesis includes a 12 point quality assessment system, which is more comprehensive than those used in most other qualitative synthesis methods (Barnett-Page & Thomas, 2009).

3.3. Limitations of thematic synthesis

A potential limitation of thematic synthesis is the use of data reported through the lens of another researcher. Whilst the aim of qualitative synthesis is to summarise, interpret and explain findings, doing so may inevitably “lose the vitality, viscerality and vicariism of the human experiences represented in the original studies” (Sandelowski, Docherty & Emden, 1997, p.366). To reduce the risk of moving away from the data during analysis, a transparent and systematic framework of the thematic synthesis method was adhered to, with the validity of the analytical themes preserved using a constant comparative approach to ensure concepts were representative of findings in the original articles, and through discussions and adaptations of themes across meetings with the wider research team. Unfortunately, it was not possible to complete member checking of the results with authors of the articles reviewed, which would have provided additional validity that the results were reflective of their original data and interpretations.

3.4 Limitations of findings

Search criteria in the review were limited to psychological disorders seen routinely in mental health services, based on a review of service provision in the UK (McCrone, Dhanasiri, Patel, Knapp & Lawton-Smith, 2008), and the searching of grey literature was not completed. Therefore potentially relevant studies could have been overlooked. This may have contributed to the disproportionate number of papers (50%) which focussed on eating disorders (ED) in the review and may limit the generalisability of the results. In addition, the bias to ED research may suggest the qualitative literature regarding IS in other clinical groups was not sufficient to warrant a systematic review. However, this thematic synthesis is considered appropriate for two reasons. Firstly, unlike quantitative reviews, where the exclusion of relevant studies can bias statistical results, thematic synthesis seeks recurrent themes across studies, with conceptual analyses determined by the number of concepts sampled, not the number of studies included (Thomas & Harden, 2008). As Paper 1 included a range of relatively heterogeneous studies across a range of psychological
disorders (AN, bulimia nervosa, PTSD, psychosis and schizophrenia), contexts (inpatient, outpatient and the community), genders and nationalities (USA, Canada, UK, Norway), the likelihood that important concepts were missed is minimised. Secondly, the reporting of the results were transparent, clearly outlining IS experiences specific to EDs and those which were shared across samples. Whilst this did not increase generalisability, it did highlight important directions for future research, specifically whether certain IS processes are unique to EDs or transdiagnostic.

4. Experience of an Anorexic VoicE (EAVE) Study (Paper 2)

Although observed in clinical practice and acknowledged in research for a number of years, research exploring the AV directly is relatively new. It was identified that a valid and reliable tool to measure this phenomenon was required in order to progress research in this area. Paper 2 describes the development and psychometric assessment of such a scale - the EAVE-Q.

4.1 Measures

Three validated measures were used to screen for eligibility and assess the construct validity of the EAVE-Q: the Depression, Anxiety, Stress Scale (DASS-21; Lovibond & Lovibond, 1995), the Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994), and the World Health Organisation Quality of Life Assessment (WHOQOL-BREF; Skevington, Lotfy & O’Connell, 2004). Following completion of the EDE-Q for diagnostic purposes, the EAVE-Q was presented first to maximise completion rates for an online study where high attrition rates were expected (Hoerger, 2010). Due to the EAVE-Q being necessarily long, it was important that all other measures were quick to complete. The DASS-21 and WHOQOL-BREF were selected as they have previously been used in research with AN samples (e.g. Harrison, Sullivan, Tchanturia & Treasure, 2010; Van den Eynde et al., 2012; Mond, Hay, Rodgers, Owen & Beumont, 2005), suggesting acceptability and providing a reference point for the EAVE study sample. The WHOQOL-BREF has good to excellent reliability and validity and is a cross-culturally valid assessment (Skevington et al., 2004), which was important because the study recruited participants internationally. As individuals with AN are likely to experience physical symptoms which may confound responses on measures of anxiety and depression, the DASS-21 was chosen because the depression and stress scales contain only psychological items. However, the anxiety subscale does contain three somatic items pertaining to
dryness of mouth, trembling hands and increased heart rate, all of which may be associated with low weight and disordered eating. Whilst is it possible this may have elevated anxiety rates in the EAVE sample, mean DASS-21 anxiety scores were still below reported DASS-21 depression scores which were not affected by somatic symptoms, and therefore anxiety symptoms did not appear to be unduly inflated.

The EDE-Q assessed likely caseness of an ED and severity of ED symptoms. Although a mean EDE-Q score of 4.0 is usually applied to AN samples, based on norms established elsewhere (Aardoom, Dingemans, Slof Op’t Landt & Van Furth, 2012), a lower threshold score of 3.5 was used in this study. This is because norms for individuals receiving treatment may be too extreme for research also recruiting participants from the community (Mond, Hey, Rodgers, Owen & Beaumont, 2004). As global EDE-Q scores of >2.3 have been found to provide sufficient sensitivity and specificity for caseness of EDs in a community sample elsewhere (Mond et al., 2004), the selection of an EDE-Q threshold score which was within 0.5 of a standard deviation (SD) from the mean of a large, AN sample seeking treatment (Aardoom et al., 2012) was felt to be appropriate for this study, which recruited participants from ED services and the community. Despite this, because eligibility was not restricted by BMI, the EAVE sample were at risk of not representing a ‘true’ clinical sample. However, the mean EDE-Q score for the sample was 4.86 (SD = 0.69), and further analyses found that, with the exception of age, there was no difference in clinical outcomes between those with a validated diagnosis, and those with self-report data who had a BMI <18.5. As such, the sample was considered generally representative of a clinical AN sample, with individuals having clinically relevant ED symptoms whilst being at various stages of weight restoration.

Whilst used regularly in ED research and clinical practice (Berg, Peterson & Crow, 2012), with good reliability and validity (Aardoom et al., 2012), the EDE-Q does have diagnostic limitations which should be considered. Importantly, the EDE-Q does not assess for AN specifically, but ED symptoms more globally, including bulimia nervosa, binge eating disorder and EDNOS (Fairburn & Beglin, 1994), and there is evidence it may be more relevant for females than males (Thomas, Roberto & Berg, 2014). In addition, the EDE-Q focusses on two broad, overlapping dimensions of shape concern and weight concern. Whilst these are undeniably important (Fairburn & Beglin, 1994), the EDE-Q does not capture other facets of AN documented in the literature, such as the
need for simplicity and certainty (Vitousek and Hollon, 1990), issues of control (Williams & Reid, 2012), feelings of guilt and anxiety around eating (Tierney & Fox, 2011), the function of AN as a coping strategy (Tierney & Fox, 2010) and issues of identity (Williams, King & Fox, 2015). In fact, the use of the EDE-Q led to a complaint from a participant excluded from the study on this basis, reporting that they felt invalidated and that the views of people not fitting a ‘typical’ diagnostic profile were not valued. This complaint, and the observation that 52 participants withdrew from the online study prior to completion of the EDE-Q, raises questions about its acceptability.

In terms of the distress caused to the participant, an apology was made and support offered, with the opportunity for the participant to discuss their concerns thoroughly and justifications for the study methodology provided. This person was then consulted regarding changes to the participant information sheet and study flyer, to provide greater clarity that completion of an ED symptom questionnaire was required. These changes were implemented with immediate effect following ethical approval. With regards to the continued use of the EDE-Q in this research, despite its limitations it is the most widely used and reliable measure for assessing caseness for EDs currently available, locating this study within the context of the current literature. In addition, to the authors’ knowledge there is no self-report scale available for the assessment of AN specifically. This is seen as further evidence for the utility of the development of the EAVE-Q, which is not restricted to weight and shape concerns and measures potentially neglected aspects of AN. Once validated, the EAVE-Q could hopefully be used as an alternative screener for AN in future research.

4.2 Self-report data and online data collection

Paper 2 relied extensively on self-report data collected online. By definition, the integrity of the data is based on the assumption that information is provided accurately and honestly, and that participants are able to clearly understand questions and recall experiences they are asked about. Whilst convenient for collecting data when larger samples are required, as in the case of factor analysis (FA), online data collection does not allow support or clarification to be provided to participants during study completion. In addition, there is limited control over the sample, with participants able to complete the study multiple times if they wished to, which was observed to be the case for one participant who completed the EAVE study twice after first being screening out on
the basis of EDE-Q score. Whilst this person was excluded from the study, and data were screened thoroughly, it is unknown whether other participants who were not as easily detected may have done the same, and is a limitation of this study. Conversely, a strength of the online approach was the option for participants to take part anonymously if preferred, and it is hoped that this increased the likelihood of honest responses. Anonymous participation itself provided an ethical issue, because participants leaving responses indicating risks to themselves could not be contacted. To manage this, clear statements were provided at the beginning and end of the study regarding the inability of the research team to identify participants via their data. Information regarding support organisations and services which could be contacted at all times was also provided. The research team were available for non-emergency support related to study participation, although no one accessed this.

4.3 Sample size

Despite a large literature examining optimal sample size for FA, no consensus has been reached (see Williams, Brown & Onsman, 2010 for a discussion). Both minimum required sample sizes (Kline, 1994) and participant-to-item ratio approaches, starting from 5 participants per variable, have been recommended (Field, 2005; MacCallum, Widaman, Zhang & Hong, 1999). Although samples exceeding 300 have been said to produce more stable solutions in FA (Comrey & Lee, 1992; Tabachnick & Fidell, 2013), there is evidence that other factors, including size of communalities (> .50), number of factors, number of variables per factor and size of factor loadings (> .80) are more important in determining reliable factor solutions (MacCallum et al., 1999). As such, samples between 100 and 200 can provide accurate solutions where communalities are > .5 and there are a small number of factors and indicator variables (MacCallum et al., 1999). As the nature of the data could not be predicted in advance, a minimum sample size of 150 participants was selected as a target for recruitment, as this was above the absolute minimum criteria of 100 required for FA (Kline, 1993) and provided adequate power for other planned analyses. The final sample recruited was just below target (n = 148), however the Kaiser-Meyer-Olkin measures of sampling adequacy (KMO; Kaiser, 1974) for the EAVE-Q total scale and individual items were well above .5, indicating the sample was adequate for FA (Hutcheson & Sofroniou, 1999). Following removal of redundant items and variables with inter-item correlations < .30, the final participant-
to-item ratio was 4.48:1, which was also approaching the minimal range (5:1) for FA using this sampling method (MacCallum et al., 1999). Using MacCallum et al’s (1999) criteria, average communalities were .55, however only five items had factor loadings >.80 and there was a relatively small number of indicator variables per factor (three to five), suggesting that factors may not be well determined. Additionally, most EAVE-Q items were moderately skewed, meaning the factor structure was applicable to the EAVE sample alone (Field, 2005). Whilst all items used the entire response scale and there was variability in responses, this may have been limited and therefore subtle correlations between EAVE-Q domains and clinical outcomes could have been missed, and significant correlations may have been inflated. Further research with other larger AN samples is required to assess the replicability of the factor structure and confirm associations between EAVE-Q domains and clinical outcomes.

4.4 Validity and reliability of the EAVE-Q

Reliability in scale development is often assessed using Cronbach’s Alpha to assess the coherence of items in a scale, and test retest reliability to assess the extent to which similar scores are obtained for the same person following a brief interval (McCrae, Kurtz, Yamagata, Terracciano, 2011). Due to time constraints in this study, it was not possible to complete test retest reliability on the EAVE-Q. Whilst internal consistency for the scale was good, with CAs for all domains above .70, test retest reliability has been found to be poorly associated with internal consistency (Chmielewski and Watson, 2009), and therefore repeatability of the EAVE-Q cannot be assumed. Test retest analysis was originally planned. However, this was at a stage when the cognitive interviews and development of the original scale were to be completed as part of an earlier Masters project. Unfortunately, this was not possible, and so the cognitive interviews and scale development became part of the current thesis, delaying recruitment until November 2015 and therefore the final EAVE-Q was not developed in time for repeatability analysis. However, on reflection, a test retest assessment of the original 77 item scale would have been possible. Whilst this would not have provided information about the repeatability of the final scale, it would have provided information about the stability of individual items. As such, further testing of the EAVE-Q is required to assess repeatability. Whilst stability over brief intervals reflects reliability and validity (McCrae et al. 2011), the ability of the EAVE-Q to detect change over longer durations is important, as the AV is predicted to maintain AN and be associated
with illness course. Future research should assess if EAVE-Q scores are sensitive to change over time, and if changes are predictive of relevant changes in clinical outcomes, such as psychological wellbeing and ED symptoms.

4.5 Multiple testing
The EAVE study used multiple testing within a single dataset to assess associations between EAVE-Q scores and clinical outcomes, with the threshold for significance set at Alpha .05. Whilst adjustments for multiple testing could have been implemented, (e.g. Bonferroni corrections), this would have increased the risk of not detecting potential areas of interest (Type 2 error). This was felt to be a greater risk in the context of Paper 2, which was the first study to develop a new scale and therefore exploratory in nature. However, multiple testing will have increased the chance of finding significant effects due to chance (Type 1 error), and all significant findings require replication with other AN samples.

5. Implications for theory, research and clinical practice
The findings of each paper, and their implications, have been discussed within the individual papers. Instead a summary of key findings is provided here, with discussion of the results in combination to consider the implications for theory, research and clinical practice more widely.

5.1 The role of inner speech in psychological distress
Paper 1 provides evidence for the important role of IS in the maintenance of psychological disorders. Despite critical inner dialogues offering predominantly positive functions related to coping and achievement in the early stages, rumination on these narratives in IS increases their intensity and power. This results in negative emotions, such as anxiety, depression and low self-esteem, and impacts significantly on behaviour, leading to social withdrawal or endless striving in pursuit of unrealistic goals. Whilst these findings were relevant to those diagnosed with psychological disorders more generally, Paper 2 provided further evidence for the role of IS in AN specifically, with the EAVE-Q measuring the function and impact of the AV. In particular, the EAVE-Q differentiates meaningfully between specific positive functions and specific negative consequences of IS. Consistent with general positive functions of IS across disorders in Paper 1, the AV was underpinned by positive internal consequences (happiness, satisfaction and control) and feelings of self-confidence, framed as
benefits of adherence, and as a coping mechanism providing support, labelled 'the compassionate AV'. Negative consequences of the AV were also consistent with those outlined for other clinical groups in Paper 1, and distinguished between internal consequences – feeling controlled and dominated, and external consequences – with the AV impacting negatively on relationships with others and opportunities for support. The latter domain in particular was highly associated with psychological distress, ED symptoms and reduced quality of life (QoL), highlighting the need for people to re-engage with others as part of recovery. Taken together, these findings provide evidence for psychological models highlighting the role of IS in psychological distress and identity and for the clinical utility of evaluating the AV in the treatment of AN (Higbed & Fox, 2010; Tierney & Fox, 2010; Pugh, 2016).

5.2 The validity of the AV

Issues regarding the validity of the AV concept are discussed in Paper 2. The EAVE Study adds meaningfully to this debate, and provides evidence that the AV is a valid and clinically important construct which is separable from other cognitive and behavioural processes in AN. Whilst highly related to EDE-Q scores, EAVE-Q domains were not so strongly correlated with ED symptoms that they appeared to be measuring the same construct. Rather than an epiphenomenon of AN-related thoughts and behaviours, the AV was specifically characterised by the experience of engaging with a critical internal dialogue. All items regarding weight and shape concern were eliminated in FA, and what remained were items which assessed feelings of dis-identity, control, domination, isolation, support, and motivation. As such, the EAVE-Q appears to measure the experience, function and consequence of a negative inner dialogue in AN, with face and content validity for scale items confirmed through cognitive interviews. The EAVE study could not provide evidence that the AV is not purely a social construct, and how participants came to recognise and conceptualise the AV is unknown. However, as suggested elsewhere (Pugh, 2016), it is how helpful this concept is in understanding and treating AN that is important, rather than its origin.
5.3 Is the AV a form of AVH?

Whist a critical inner dialogue was transdiagnostic in Paper 1, the conceptualisation of IS as a ‘voice’ was unique to EDs, and Paper 2 found that externalising the AV as thoughts and feelings separate from the self was an important dimension. Parallels between AVH and IS were discussed in Paper 1, with the main point of difference being autonomy. This appeared to clearly differentiate the ED voice from hallucinations, with AVHs ostensibly appraised as ‘not me’ in the literature (e.g. Fernyhough, 2004) and the ED voice appraised as ‘a part of me’ in EDs (e.g. Williams & Reid, 2012). The switch to conceptualise IS as a voice in EDs was consistent with a distinction made by Hurlburt & Schwitzgebel (2007), who differentiated IS and ‘inner hearing’. They proposed that whilst IS is experienced as “going away”, “produced by” and “under the control of” the individual, inner hearing is experienced as sounds which are “coming towards”, “experienced by” and “listened to” (p. 257).

As the AV has been suggested as a severity marker in AN (Williams & Reid, 2012; Williams et al., 2015) and linked to feeling out of control in Paper 1, it may be that as AN progresses and people gradually submit to their critical inner dialogue, IS takes on a more passive quality, with the feeling of listening to one’s own IS rather than being in control of it. This would explain the retention of the ED ‘voice’ as one’s own, and would differentiate the AV as inner hearing, rather than a hallucinatory experience.

5.4 Clinical implications: Inner speech as a route to recovery

Overall, Paper 1 provided evidence that challenging the content of negative inner dialogues can be aversive, anxiety provoking and counter-productive, increasing, rather than decreasing their intensity and associated distress. Paper 2 provides context to this, with the positive functions of the AV, and the AV as a core yet separable part of the self, indicating why change may be so difficult to contemplate. This thesis advocates clinical approaches which facilitate disengagement from negative inner narratives and the nurturing of more positive inner dialogues, which are discussed more thoroughly in Paper 1. The use of the EAVE-Q to assess the ability of existing treatments to target the AV in AN is also indicated, with the EAVE-Q also providing a starting point for useful dialogues about the AV in clinical practice. What this thesis does highlight is the importance of clinicians being aware of, and asking questions about problematic inner dialogues, focussing on their associated
emotions and behavioural responses, rather than their content, to understand the impact for the individual and effectively facilitate change.

5.5. Future research
This thesis provides additional evidence for the importance of the AV in AN, and the value in continued research in this area. Specifically, refinement of the EAVE-Q, as already outlined in this paper, is required with larger AN samples, and with male and female participants from a wide range of cultural and ethnic backgrounds, to assess its validity, repeatability and sensitivity to change. Given the associations between the AV and clinical outcomes, research which explores the effectiveness of targeting the AV in treatment is also indicated, with the EAVE-Q, once refined, available as an evaluative tool. If found to be helpful in AN, the conceptualisation of inner narratives as inner voices more transdiagnostically could prove a useful way to facilitate disengagement from psychological distress.

Qualitative research exploring the inner voice in other EDs does exist (e.g. Broussard, 2005) but is limited, as is the qualitative literature assessing the role of IS in psychological disorders more broadly. Future research which explores the role of similar negative inner dialogues in other EDs and clinical groups is required to assess the uniqueness of the AV, and to understand why this might be the case if found to be exclusive to AN. The EAVE-Q could potentially be adapted to be a more general measure of problematic IS for this purpose, by replacing the term ‘my AV’ with ‘my inner voice’, and re-wording ED specific items.

Whilst the thematic synthesis (Paper 1) provides a useful insight into the role of IS in psychological disorder, the lack of qualitative research focussing on IS specifically means that the cause of critical inner dialogues was not elaborated, and subjective accounts of factors which mediate vulnerability and resilience to engagement with critical inner narratives are not available. This is an area for future research.

5.6 Implications for personal practice
Completing this project alongside other demands of clinical training was challenging, and led to reflections on the feasibility of research post-qualification. One of the key assumptions of the scientist-practitioner model is that researchers working in clinical practice will conduct research on
important social issues (Jones & Mehr, 2007). Given the current climate, when demands on clinicians are ever increasing, it is necessary to consider how, as a newly qualified psychologist, the full role of a clinical psychologist can be fulfilled. Whilst integration of scientific knowledge into clinical practice will always be at the core of clinical psychology, it will be the responsibility of individual psychologists to uphold our responsibility to contribute to the literature. The use of practice-based evidence approaches are likely the most practical and efficient way to achieve this.

Developing a scale as part of this thesis was undeniably challenging, but also incredibly useful for considering tools used routinely in clinical practice. Whilst understanding the importance of reliability and validity, the author had not always considered other aspects of psychometric assessments, such as origin of items, robustness of factor structure, underlying constructs and potential redundancy within scales. This thesis has enabled the development of skills not only in measurement development, but also measurement appraisal, which are essential when using psychometric assessments in clinical practice to inform service provision, guide intervention and evaluate effectiveness.

6. Conclusions
This paper evaluates the current thesis and makes proposals for theory, research and clinical practice in the context of the strengths and limitations discussed. As such, this research is considered to make a timely and important contribution to the existing literature exploring the role of IS in psychological disorder, and the role of an AV in AN specifically.
References


Appendix 1. Author guidelines for Clinical Psychology Review

CLINICAL PSYCHOLOGY REVIEW

TABLE OF CONTENTS

- Description p.1
- Audience p.1
- Impact Factor p.1
- Abstracting and Indexing p.2
- Editorial Board p.2
- Guide for Authors p.3

DESCRIPTION

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

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

Benefits to authors

We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.

Please see our Guide for Authors for information on article submission. If you require any further information or help, please visit our support pages: http://support.elsevier.com

AUDIENCE

Psychologists and Clinicians in Psychopathy

IMPACT FACTOR

2014: 6.932 © Thomson Reuters Journal Citation Reports 2015
ABSTRACTING AND INDEXING

BIOSIS
Behavioral Medicine Abstracts
Current Contents/Social & Behavioral Sciences
EMBASE
PsyCINFO Psychological Abstracts
PsycLIT
Psycscan CP
Research Alert
Social Sciences Citation Index
Social and Behavioural Sciences
Scopus

EDITORIAL BOARD

Editor-in-Chief
A.S. Bellack, University of Maryland, Baltimore, Maryland, USA

Co-Editors
W.K. Silverman, Ph.D., ABPP, Yale University School of Medicine, New Haven, Connecticut, USA H. Borenbaum, University of Illinois at Urbana-Champaign, Champaign, Illinois, USA

Editorial Board
R. A. Baer, University of Kentucky, Lexington, Kentucky, USA
D. Baker, Florida International University, Miami, Florida, USA
A. Bardone-Cone, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA
L. Booi, McGill University, Montreal, Quebec, Canada
A. Busch, Centers for Behavioral and Preventive Medicine, Providence, Rhode Island, USA
J. E. Calamari, Rosalind Franklin University of Med. and Science, North Chicago, Illinois, USA
M. S. Christopher, Pacific University, Forest Grove, Oregon, USA
P. Cuijpers, VU University, Amsterdam, Netherlands
M. Cyders, Indiana University-Purdue University at Indianapolis (IUPUI), Indianapolis, Indiana, USA
J. Davis, University of Tulsa, Tulsa, Oklahoma, USA
J. D. Elhai, University of Toledo, Toledo, Ohio, USA
B. Gaudiano, Brown University, Providence, Rhode Island, USA
D. A. Haaga, The American University, Washington, District of Columbia, USA
G. Haas, University of Pittsburgh, Pittsburgh, Pennsylvania, USA
G. Haeffel, University of Notre Dame, Notre Dame, Indiana, USA
R. Hallam, London, UK
M. Harrow, University of Illinois College of Medicine, Chicago, Illinois, USA
H. Hazlett-Stevens, University of Nevada at Reno, Reno, Nevada, USA
E.R. Lebowitz, Yale University School of Medicine, New Haven, Connecticut, USA E.W. Leen-Feldner, University of Arkansas, Fayetteville, Arkansas, USA
C. Lejuez, University of Maryland, College Park, Maryland, USA
R. Moulding, Deakin University, Melbourne, Victoria, Australia
K. T. Mueser, Boston University, Boston, Massachusetts, USA
J. Pettit, Florida International University, Miami, Florida, USA
S. Pineles, National Center for PTSD, Boston, Massachusetts, USA
K. Rowa, McMaster University, Hamilton, Ontario, Canada
K. Salters-Pedneault, Eastern Connecticut State University, Willimantic, Connecticut, USA
D. Sharpe, University of Regina, Regina, Saskatchewan, Canada
F. A. Storch, University of South Florida, St. Petersburg, Florida, USA
B. Wampold, University of Wisconsin at Madison, Madison, Wisconsin, USA C.F.
Weems, Iowa State University, Ames, Iowa, USA
A. Weinstein, Ariel University, Ariel, Israel
T. Widiger, University of Kentucky, Lexington, Kentucky, USA
S. Wilhelm, Harvard Medical School, Boston, Massachusetts, USA
GUIDE FOR AUTHORS

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

Declaration of interest
All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the submitted work that could inappropriately influence, or be perceived to influence, their work. More information.

Submission declaration and verification
Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see 'Multiple, redundant or concurrent publication' section of our ethics policy for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service CrossCheck.

Changes to authorship
Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed.

Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

Author Disclosure Policy
Authors must provide three mandatory and one optional author disclosure statements. These statements should be submitted as one separate document and not included as part of the manuscript. Author disclosures will be automatically incorporated into the PDF builder of the online submission system. They will appear in the journal article if the manuscript is accepted.

The four statements of the author disclosure document are described below. Statements should not be numbered. Headings (i.e., Role of Funding Sources, Contributors, Conflict of Interest, Acknowledgements) should be in bold with no white space between the heading and the text. Font size should be the same as that used for references.

Statement 1: Role of Funding Sources
Authors must identify who provided financial support for the conduct of the research and/or preparation of the manuscript and to briefly describe the role (if any) of the funding sponsor in study design, collection, analysis, or interpretation of data, writing the manuscript, and the decision to submit the manuscript for publication. If the funding source had no such involvement, the authors should so state.

Example: Funding for this study was provided by NIAAA Grant R01-AA123456. NIAAA had no role in the study design, collection, analysis or interpretation of the data, writing the manuscript, or the decision to submit the paper for publication.

Statement 2: Contributors
Authors must declare their individual contributions to the manuscript. All authors must have materially participated in the research and/or the manuscript preparation. Roles for each author should be described. The disclosure must also clearly state and verify that all authors have approved the final manuscript.

Example: Authors A and B designed the study and wrote the protocol. Author C conducted literature searches and provided summaries of previous research studies. Author D conducted the statistical analysis. Author B wrote the first draft of the manuscript and all authors contributed to and have approved the final manuscript.

Statement 3: Conflict of Interest
All authors must disclose any actual or potential conflict of interest. Conflict of interest is defined as any financial or personal relationships with individuals or organizations, occurring within three (3) years of beginning the submitted work, which could inappropriately influence, or be perceived to have influenced, the submitted research manuscript. Potential conflict of interest would include employment, consultancies, stock ownership (except personal investments equal to the lesser of one percent (1%) of total personal investments or USD$5000), honoraria, paid expert testimony, patent applications, registrations, and grants. If there are no conflicts of interest by any author, it should state that there are none.

Example: Author B is a paid consultant for XYZ pharmaceutical company. All other authors declare that they have no conflicts of interest.

Statement 4: Acknowledgements (optional)
Authors may provide Acknowledgements which will be published in a separate section along with the manuscript. If there are no Acknowledgements, there should be no heading or acknowledgement statement.

Example: The authors wish to thank Ms. A who assisted in the proof-reading of the manuscript.

Copyright
Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

For open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of open access articles is determined by the author’s choice of user license.

Author rights
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Role of the funding source
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

Funding body agreements and policies
Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder’s open access policies. Some funding bodies will reimburse the author for the Open Access Publication Fee. Details of existing agreements are available online.
Open access
This journal offers authors a choice in publishing their research:

Open access
• Articles are freely available to both subscribers and the wider public with permitted reuse.
• An open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Subscription
• Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
• No open access publication fee payable by authors.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

Creative Commons Attribution (CC BY)
Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)
For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The open access publication fee for this journal is USD 1800, excluding taxes. Learn more about Elsevier's pricing policy: http://www.elsevier.com/openaccesspricing.

Green open access
Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our green open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form.

This journal has an embargo period of 24 months.

Elsevier Publishing Campus
The Elsevier Publishing Campus (www.publishingcampus.com) is an online platform offering free lectures, interactive training and professional advice to support you in publishing your research. The College of Skills training offers modules on how to prepare, write and structure your article and explains how editors will look at your paper when it is submitted for publication. Use these resources, and more, to ensure that your submission will be the best that you can make it.

Language (usage and editing services)
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's WebShop.
Submission

Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor’s decision and requests for revision, is sent by e-mail.

PREPARATION

Use of word processing software

It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the ‘spell-check’ and ‘grammar-check’ functions of your word processor.

Article structure

Manuscripts should be prepared according to the guidelines set forth in the Publication Manual of the American Psychological Association (6th ed., 2009). Cf. note, section headings should not be numbered.

Manuscripts should ordinarily not exceed 50 pages, including references and tabular material. Exceptions may be made with prior approval of the Editor in Chief. Manuscript length can often be managed through the judicious use of appendices. In general the References section should be limited to citations actually discussed in the text. References to articles solely included in meta-analyses should be included in an appendix, which will appear in the on line version of the paper but not in the print copy. Similarly, extensive Tables describing study characteristics, containing material published elsewhere, or presenting formulas and other technical material should also be included in an appendix. Authors can direct readers to the appendices in appropriate places in the text.

It is authors’ responsibility to ensure their reviews are comprehensive and as up to date as possible (at least through the prior calendar year) so the data are still current at the time of publication. Authors are referred to the PRISMA Guidelines (http://www.prisma-statement.org/statement.htm) for guidance in conducting reviews and preparing manuscripts. Adherence to the Guidelines is not required, but is recommended to enhance quality of submissions and impact of published papers on the field.

Appendices

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Essential title page information

Title. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible. Note: The title page should be the first page of the manuscript document indicating the author’s names and affiliations and the corresponding author’s complete contact information.

Author names and affiliations. Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors’ affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author’s name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author within the cover letter.
Corresponding author. Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.

Present/permanent address. If an author has moved since the work described in the article was done, or was visiting at the time, a “Present address” (or “Permanent address”) may be indicated as a footnote to that author’s name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Abstract

A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

Graphical abstract

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 x 1328 pixels (h x w) or proportionally more. The image should be readable at a size of 5 x 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site. Authors can make use of Elsevier’s Illustration and Enhancement service to ensure the best presentation of their images and in accordance with all technical requirements: Illustration Service.

Highlights

Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate editable file in the online submission system. Please use ‘highlights’ in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). You can view example Highlights on our information site.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, ‘and’, ‘of’). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder’s requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].
It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Footnotes
Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

Electronic artwork
General points
• Make sure you use uniform lettering and sizing of your original artwork.
• Embed the used fonts if the application provides that option.
• Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Provide captions to illustrations separately.
• Size the illustrations close to the desired dimensions of the published version.
• Submit each illustration as a separate file.
A detailed guide on electronic artwork is available.
You are urged to visit this site; some excerpts from the detailed information are given here.
Formats
If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.
Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi. TIFF (or JPEG): Combinations bitmapped line/halftone (color or grayscale), keep to a minimum of 500 dpi.
Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
• Supply files that are too low in resolution;
• Submit graphics that are disproportionately large for the content.
Color artwork
Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article. Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

Figure captions
Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.
Tables
Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules.

References
Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 1-4338-0559-6, copies of which may be ordered from http://books.apa.org/books.cfm?id=4200067 or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC1E 8LU, UK. Details concerning this referencing style can also be found at http://humanities.byu.edu/linguistics/Henrichsen/APA APA/01.html

Citation in text
Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either ‘Unpublished results’ or ‘Personal communication’. Citation of a reference as ‘in press’ implies that the item has been accepted for publication.

Web references
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

References in a special issue
Please ensure that the words ‘this issue’ are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley and Zotero, as well as EndNote. Using the word processor plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal’s style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/clinical-psychology-review

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference style
References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters “a,” “b,” “c,” etc., placed after the year of publication. References should be formatted with a hanging indent (i.e., the first line of each reference is flush left while the subsequent lines are indented).


**Video data**
Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file’s content. In order to ensure that your video or animation material is directly usable, please provide the files in one of our recommended file formats with a preferred maximum size of 150 MB. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply ’stills’ with your files; you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

**Supplementary material**
Supplementary material can support the reader. Supplementary files will be published online exactly as they are submitted; there is no typesetting involved (supplementary data supplied as an Excel file or as a PowerPoint slide will appear as such online). Please submit the material together with the article and supply a concise and descriptive caption for each file. If you wish to make any changes to supplementary data during any stage of the process, then please make sure to provide an updated file, and do not annotate any corrections on a previous version. Please also notify the Editor of any disclaimers to the data or the conclusions that have been drawn. More detailed information is available online. Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

**AudioSlides**
The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. More information and examples are available. Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

**3D neuroimaging**
You can enrich your online articles by providing 3D neuroimaging data in NIfTI format. This will be visualized for readers using the interactive viewer embedded within your article, and will enable them to: browse through available neuroimaging datasets; zoom, rotate and pan the 3D brain reconstruction; cut through the volume; change opacity and color mapping; switch between 3D and 2D projected views; and download the data. The viewer supports both single (.nii) and dual (.hdr and .img) NIfTI file formats. Recommended size of a single uncompressed dataset is maximum 150 MB. Multiple datasets can be submitted. Each dataset will have to be zipped and uploaded to the online submission system via the '3D neuroimaging data' submission category. Please provide a short informative description for each dataset by filling in the 'Description' field when uploading a dataset. Note: all datasets will be available for downloading from the online article on ScienceDirect. If you have concerns about your data being downloadable, please provide a video instead. More information.

**Interactive plots**
This journal enables you to show an Interactive Plot with your article by simply submitting a data file. Full instructions.

**Submission checklist**
The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.

**Ensure that the following items are present:**
One author has been designated as the corresponding author with contact details:

- E-mail address

AUTHOR INFORMATION PACK 10 May 2015

www.elsevier.com/locate/clinpsychrev
• Full postal address
  All necessary files have been uploaded, and contain:
• Keywords
• All figure captions
• All tables (including title, description, footnotes)
Further considerations
• Manuscript has been ‘spell-checked’ and ‘grammar-checked’
• References are in the correct format for this journal
• All references mentioned in the Reference list are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Internet)
Printed version of figures (if applicable) in color or black-and-white
• Indicate clearly whether or not color or black-and-white in print is required.
For any further information please visit our Support Center.

AFTER ACCEPTANCE

Online proof correction
Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.
If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.
We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

Offprints
The corresponding author will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier’s Webshop. Corresponding authors who have published their article open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

AUTHOR INQUIRIES
Track your submitted article
Track your accepted article
You are also welcome to contact the Elsevier Contact Center.

© Copyright 2014 Elsevier | http://www.elsevier.com
Appendix 2. Quality assessment checklist for qualitative research

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The aims and objectives were clearly reported</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>2. There is an adequate description of the context in which the research was carried out, including a rationale for why the study was undertaken</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>3. There is an adequate description of the sample used, and the methods by which the sample were identified and recruited</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>4. There is an adequate description of the methods used to collect data</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>5. There is an adequate description of the methods used to analyse data</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>6. There have been attempts to establish reliability of data collection tools (e.g. use of interview topic guides)</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>7. There has been attempts to establish the validity of data collection tools (e.g. pilot interviews)</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>8. There have been attempts to establish reliability of data analysis methods (e.g. use of independent coders)</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>9. There have been attempts to establish reliability of data analysis methods (e.g. searching for negative cases)</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>10. The study used appropriate data collection methods for helping participants to express their views</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>11. The study used appropriate methods for ensuring the data analysis was grounded in the views of the participants</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>12. The study actively involved people with psychological disorders in its design and conduct</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td><strong>Total</strong> Total score for criteria 1 - 12</td>
<td>&lt; 6 = Low</td>
</tr>
<tr>
<td></td>
<td>7 - 9 = Medium</td>
</tr>
<tr>
<td></td>
<td>10 - 12 = High</td>
</tr>
</tbody>
</table>

**Weight of evidence**

To what extent do you consider the study findings to be grounded in the perspectives and experiences of people with psychological disorders? Could study methods have distorted, misrepresented or failed to pick up on participants’ views?

<table>
<thead>
<tr>
<th>Weight of evidence</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 3. Advances in Eating Disorders: Theory, Research and Practice — Guidelines for authors

Thank you for choosing to submit your paper to us. These instructions will ensure we have everything required so your paper can move through peer review, production and publication smoothly. Please take the time to read them and follow the instructions as closely as possible.

Author Services
Supporting Taylor & Francis authors

Should you have any queries, please visit our Author Services website or contact us at authorqueries@tandf.co.uk.

SCHOLARONE MANUSCRIPTS™

This journal uses ScholarOne Manuscripts (previously Manuscript Central) to peer review manuscript submissions. Please read the guide for ScholarOne authors before making a submission. Complete guidelines for preparing and submitting your manuscript to this journal are provided below.

Use these instructions if you are preparing a manuscript to submit to Advances in Eating Disorders. To explore our journals portfolio, visit http://www.tandfonline.com/, and for more author resources, visit our Author Services website.

Advances in Eating Disorders considers all manuscripts on the strict condition that the manuscript is your own original work, and does not duplicate any other previously published work, including your own previously published work.

the manuscript has been submitted only to Advances in Eating Disorders; it is not under consideration or peer review or accepted for publication or in press or published elsewhere.

the manuscript contains nothing that is abusive, defamatory, libellous, obscene, fraudulent, or illegal.

Please note that Advances in Eating Disorders uses CrossCheck™ software to screen manuscripts for unoriginal material. By submitting your manuscript to Advances in Eating Disorders you are agreeing to any necessary originality checks your manuscript may have to undergo during the peer-review and production processes.

Any author who fails to adhere to the above conditions will be charged with costs which Advances in Eating Disorders incurs for their manuscript at the discretion of Advances in Eating Disorders’s Editors and Taylor & Francis, and their manuscript will be rejected.

This journal is compliant with the Research Councils UK OA policy. Please see the licence options and embargo periods here.

Contents List
Manuscript preparation
General guidelines
Style guidelines
Figures
Publication charges
Submission fee
Page charges
Colour charges
Compliance with ethics of experimentation
Reproduction of copyright material
Supplemental online material
Manuscript submission
Copyright and authors’ rights
Free article access
Reprints and journal copies
Open access
Manuscript submission
1. General guidelines
Manuscripts are accepted in English only. British English spelling and punctuation are preferred. Please use single quotation marks, except where ‘a quotation is “within” a quotation’. Long quotations of 40 words or more should be indented without quotation marks. A typical manuscript will not exceed 6000 words excluding tables, references, captions, footnotes and endnotes. Manuscripts that greatly exceed this will be critically reviewed with respect to length. Authors should include a word count with their manuscript. Manuscripts should be compiled in the following order: title page; abstract; keywords; main text; acknowledgements; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figure caption(s) (as a list). Commentaries and debates should have clear, informative titles so that it is clear which other articles or sections they are related to. Abstracts of 200 words are required for all manuscripts submitted. Each manuscript should have 4 to 5 keywords. Search engine optimization (SEO) is a means of making your article more visible to anyone who might be looking for it. Please consult our guidance here. Section headings should be concise. All authors of a manuscript should include their full names, affiliations, postal addresses, telephone numbers and email addresses on the cover page of the manuscript. One author should be identified as the corresponding author. Please give the affiliation where the research was conducted. If any of the named co-authors moves affiliation during the peer review process, the new affiliation can be given as a footnote. Please note that no changes to affiliation can be made after the manuscript is accepted. Please note that the email address of the corresponding author will normally be displayed in the article PDF (depending on the journal style) and the online article. All persons who have a reasonable claim to authorship must be named in the manuscript as co-authors; the corresponding author must be authorized by all co-authors to act as an agent on their behalf in all matters pertaining to publication of the manuscript, and the order of names should be agreed by all authors. Biographical notes on contributors are not required for this journal. Please supply all details required by any funding and grant-awarding bodies as an Acknowledgement on the title page of the manuscript, in a separate paragraph, as follows: For single agency grants: "This work was supported by the [Funding Agency] under Grant [number xxxx]." For multiple agency grants: "This work was supported by the [Funding Agency 1] under Grant [number xxxx]; [Funding Agency 2] under Grant [number xxxx]; and [Funding Agency 3] under Grant [number xxxx]." Authors must also incorporate a Disclosure Statement which will acknowledge any financial interest or benefit they have arising from the direct applications of their research. For all manuscripts non-discriminatory language is mandatory. Sexist or racist terms must not be used. Authors must adhere to SI units. Units are not italicised. When using a word which is or is asserted to be a proprietary term or trade mark, authors must use the symbol ® or TM. Drug names: generic rather than trade names of drugs should be used, although trade names may be mentioned in parentheses in the first text reference to the drug. Affirmation of authorship All authors are expected to have made substantive intellectual contributions to, and to have been involved in drafting or revising the manuscript. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. Acquisition of funding, collection of data, or general supervision of the research group, alone, does not justify authorship. With the submission of a manuscript, it is assumed that all authors have read and approved the final manuscript. Acknowledgements All contributors who do not meet the above criteria for authorship, should be listed in an acknowledgements section. Examples of those who might be acknowledged include those who provided general, technical, or writing assistance. Acknowledgement of funding/grants are also included in this section.
2. Style guidelines

Description of the Journal’s article style.

Description of the Journal’s reference style, which is based on APA 6th Edition.

Guide to using mathematical scripts and equations.

Word templates are available for this journal. If you are not able to use the template via the links or if you have any other template queries, please contact authortemplate@tandf.co.uk.

Authors must not embed equations or image files within their manuscript.

3. Figures

Please provide the highest quality figure format possible. Please be sure that all imported scanned material is scanned at the appropriate resolution: 1200 dpi for line art, 600 dpi for grayscale and 300 dpi for colour.

Figures must be saved separate to text. Please do not embed figures in the manuscript file.

Files should be saved as one of the following formats: TIFF (tagged image file format), PostScript or EPS (encapsulated PostScript), and should contain all the necessary font information and the source file of the application (e.g. CorelDraw/Mac, CorelDraw/PC).

All figures must be numbered in the order in which they appear in the manuscript (e.g. Figure 1, Figure 2). In multi-part figures, each part should be labelled (e.g. Figure 1(a), Figure 1(b)).

Figure captions must be saved separately, as part of the file containing the complete text of the manuscript, and numbered correspondingly.

The filename for a graphic should be descriptive of the graphic, e.g. Figure1, Figure2a.

4. Publication charges

Submission fee

There is no submission fee for Advances in Eating Disorders.

Page charges

There are no page charges for Advances in Eating Disorders.

Colour charges

Colour figures will be reproduced in colour in the online edition of the journal free of charge. If it is necessary for the figures to be reproduced in colour in the print version, a charge will apply.

Charges for colour figures in print are £250 per figure ($395 US Dollars; $385 Australian Dollars; 315 Euros). For more than 4 colour figures, figures 5 and above will be charged at £50 per figure ($80 US Dollars; $75 Australian Dollars; 63 Euros).

Depending on your location, these charges may be subject to Value Added Tax.

5. Compliance with ethics of experimentation

Authors must ensure that research reported in submitted manuscripts has been conducted in an ethical and responsible manner, in full compliance with all relevant codes of experimentation and legislation. All manuscripts which report in vivo experiments or clinical trials on humans or animals must include a written Statement in the Methods section that such work was conducted with the formal approval of the local human subject or animal care committees, and that clinical trials have been registered as legislation requires.

Authors must confirm that any patient, service user, or participant (or that person’s parent or legal guardian) in any research, experiment or clinical trial who is described in the manuscript has given written consent to the inclusion of material pertaining to themselves, and that they acknowledge that they cannot be identified via the manuscript; and that authors have anonymised them and do not identify them in any way. Where such a person is deceased, authors must warrant they have obtained the written consent of the deceased person’s family or estate.

Authors must confirm that all mandatory laboratory health and safety procedures have been complied with in the course of conducting any experimental work reported in the manuscript; and that the manuscript contains all appropriate warnings concerning any specific and particular hazards that may be involved in carrying out experiments or procedures described in the manuscript or involved in instructions, materials, or formulae in the manuscript; and include explicitly relevant safety precautions; and cite, and if an accepted standard or code of practice is relevant, a reference to the relevant standard or code. Authors working in animal science may find...
6. Reproduction of copyright material

If you wish to include any material in your manuscript in which you do not hold copyright, you must obtain written permission from the copyright owner, prior to submission. Such material may be in the form of text, data, table, illustration, photograph, line drawing, audio clip, video clip, film still, and screenshot, and any supplemental material you propose to include. This applies to direct (verbatim or facsimile) reproduction as well as “derivative reproduction” (where you have created a new figure or table which derives substantially from a copyrighted source).

You must ensure appropriate acknowledgement is given to the permission granted to you for reuse by the copyright holder in each figure or table caption. You are solely responsible for any fees which the copyright holder may charge for reuse.

The reproduction of short extracts of text, excluding poetry and song lyrics, for the purposes of criticism may be possible without formal permission on the basis that the quotation is reproduced accurately and full attribution is given.

For further information and FAQs on the reproduction of copyright material, please consult our Guide.

7. Supplemental online material

Authors are encouraged to submit animations, movie files, sound files or any additional information for online publication.

Information about supplemental online material

Manuscript submission

All submissions should be made online at the Advances in Eating Disorders Scholar One Manuscripts website. New users should first create an account. Once logged on to the site, submissions should be made via the Author Centre. Online user guides and access to a helpdesk are available on this website.

Manuscripts may be submitted in any standard editable format, including Word and EndNote. These files will be automatically converted into a PDF file for the review process. LaTeX files should be converted to PDF prior to submission because ScholarOne Manuscripts is not able to convert LaTeX files into PDFs directly. All LaTeX source files should be uploaded alongside the PDF.

Click here for information regarding anonymous peer review.

Copyright and authors’ rights

To assure the integrity, dissemination, and protection against copyright infringement of published articles, you will be asked to assign us, via a Publishing Agreement, the copyright in your article. Your Article is defined as the final, definitive, and citable Version of Record, and includes: (a) the accepted manuscript in its final form, including the abstract, text, bibliography, and all accompanying tables, illustrations, data; and (b) any supplemental material hosted by Taylor & Francis. Our Publishing Agreement with you will constitute the entire agreement and the sole understanding between you and us; no amendment, addendum, or other communication will be taken into account when interpreting your and our rights and obligations under this Agreement.

Copyright policy is explained in detail here.

Free article access

As an author, you will receive free access to your article on Taylor & Francis Online. You will be given access to the My authored works section of Taylor & Francis Online, which shows you all your published articles. You can easily view, read, and download your published articles from there. In addition, if someone has cited your article, you will be able to see this information. We are committed to promoting and increasing the visibility of your article and have provided guidance on how you can help. Also within My authored works, author eprints allow you as an author to quickly and easily give anyone free access to the electronic version of your article so that your friends and contacts can read and download your published article for free. This applies to all authors (not just the corresponding author).

Reprints and journal copies

136
Article reprints can be ordered through Rightslink® when you receive your proofs. If you have any queries about reprints, please contact the Taylor & Francis Author Services team at reprints@tandf.co.uk. To order a copy of the issue containing your article, please contact our Customer Services team at Adhoc@tandf.co.uk.

Open Access

Taylor & Francis Open Select provides authors or their research sponsors and funders with the option of paying a publishing fee and thereby making an article permanently available for free online access – open access – immediately on publication to anyone, anywhere, at any time. This option is made available once an article has been accepted in peer review.

Full details of our Open Access programme

Last updated 11/03/2014
Appendix 4. Ethical approval for Stage 1 of the EAVE Study

Dr. John Fox
Lecturer in Clinical Psychology
University of Manchester
Division of Clinical Psychology, Second Floor, Zochonis Building
Brunswick Street
Manchester
M13 9LP

10 April 2014

Dear Dr. Fox

Study title: The Anorxic Voice: Characterisation and measurement of voice hearing in Anorexia Nervosa

REC reference: 14/4/0098
Protocol number: N/A
IRAS project ID: 149002

Thank you for your email of 9 April 2014. I can confirm the REC has received the documents listed below and that these comply with the approval conditions detailed in our letter dated 13 March 2014.

Documents received

The documents received were as follows:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Consent Form: Interview 1</td>
<td>2</td>
<td>February 2014</td>
</tr>
<tr>
<td>Participant Consent Form: Interview 2</td>
<td>2</td>
<td>February 2014</td>
</tr>
<tr>
<td>Protocol</td>
<td>2</td>
<td>February 2014</td>
</tr>
</tbody>
</table>

Approved documents

The final list of approved documentation for the study is therefore as follows:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic Guide for Interview 1</td>
<td>1</td>
<td>February 2014</td>
</tr>
<tr>
<td>CV: Dr John Fox</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letter from Sponsor</td>
<td>1</td>
<td>February 2014</td>
</tr>
<tr>
<td>Topic Guide for Interview 2 (cognitive interviews)</td>
<td>1</td>
<td>February 2014</td>
</tr>
</tbody>
</table>
Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

A typographical error in the Protocol should be corrected. On page 2, ‘deliberating psychiatric disorder’ should read ‘debilitating psychiatric disorder’.

The Consent Form should state what will happen to the data collected should a participant withdraw from the study. This should be consistent throughout the application (see A6.2 and A35).

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

Management permission (“R&D approval”) should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

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

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

Sponsors are not required to notify the Committee of approvals from host organisations.

Registration of Clinical Trials

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

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

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

If a sponsor wishes to contest the need for registration they should contact Catherine Biewett (catherine.biewett@nhs.net), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.
Appendix 5. Ethical approval for Stage 2 of the EAVE Study

Health Research Authority
National Research Ethics Service
NRES Committee Northwest – Greater Manchester West
3rd Floor
Barlow House
4 Minshull Street
Manchester
M1 8BD

15 July 2015

Dr Kay Gant
Trainee Clinical Psychologist
Manchester Mental Health and Social Care Trust
Section for Clinical and Health Psychology
Zochonis Building, University of Manchester
Manchester
M13 9PL

Dear Dr Gant

Study title: The Experience of an Anorexic VoicE (EAVE) Study – testing the psychometric properties of a novel questionnaire measuring the presence and significance of an anorexic voice in anorexia nervosa.

REC reference: 15/NW/0501
Protocol number: 1.0
IRAS project ID: 170624

The Research Ethics Committee reviewed the above application at the meeting held on 03 July 2015. Thank you for attending to discuss the application.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager Anna Bannister, nrescommittee.northwest-gmwest@nhs.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Ethical opinion

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

1. The Committee would like the participant information sheet revised to:
   a. Include that data can only be withdrawn up to x weeks after collection, as once the data is anonymised it cannot be withdrawn.
b. Remove that participants can contact researchers if they experience any problems or distress and include that participants can contact researchers if they need any further help completing the questions.

2. The Committee advise that the study should comply with the Welsh Language Act.

The Committee would like to suggest that the poster is simplified.

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.

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

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

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

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

Sponsors are not required to notify the Committee of approvals from host organisations.

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

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

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

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

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS Sites
The favourable opinion applies to all NHS sites taking part in the study taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see “Conditions of the favourable opinion” below).

Summary of discussion at the meeting

Ethical issues raised by the Committee in private discussion, together with responses given by the researcher when invited into the meeting

The Chair welcomed you and thanked you for attending to discuss the study. The Committee said it was an interesting study.

Social or scientific value: scientific design and conduct of the study

The Committee noted that the samples size would be 150 participants but queried what percentage of these participants would have an inner voice and queried how many participants would be needed to validate the questionnaire. You explained that you do not know how many anorexics would have an inner voice and there is very little research to indicate a percentage. You explained that part of this study is to find out what percentage this inner voice may apply to. The Committee queried that if only half the participants have an inner voice then the power calculation would be incorrect and asked how would the researcher deal with that situation. You explained that you would only include people with an inner voice in the study therefore you would recruit until you had 150 participants with an inner voice.

Recruitment arrangements and access to health information, and fair participant selection

The Committee queried why 16 and 17 years would be included. You explained that research has shown that around 16 years there is the high onset of this condition and you would like to get a range of newly and older diagnoses.

Care and protection of research participants: respect for potential and enrolled participants’ welfare and dignity

The Committee noted that safe guards and sign posting was in place for distress participants.

The Committee asked how long data would be stored for. You explained that you would follow University policy and data would be kept for 5-7 years.

Informed consent process and the adequacy and completeness of participant information

The Committee thought the researcher should include in the information sheet that data could only be withdrawn up to a certain point as after it has been anonymised it could not be withdrawn.

The Committee noted that in the consent form it states that participants should not contact the researchers in case of emergency but in the information sheet it states that participants can contact the researchers if they experience any problems or distress. The Committee said it need to be made clear in the information sheet that participants should only contact the researchers if they need help completing the forms. You explained that was correct. They had not included telephone numbers as they could not be available 24/7 to help participants if they become distressed or if an emergency occurred.

Suitability of supporting information

The Committee noted the question about a sex life in the WHOQOL questionnaire and queried if this was appropriate as the younger or older participants may not have an active sex life. You explained that this is a well-used and validated questionnaire. You explained your interpretation
of the question would be if they had no sex life what would be their satisfaction about a lack of a sex life.

The Committee noted that the researcher would be recruiting in Wales yet they have stated in question A33-2 that they would not be providing participant documents in Welsh. You explained that they do not have the funding to translate the documents into Welsh. You explained that you have been in touch with the Welsh hospital and they have advised that it would not be a problem as most participants would be English speaking. The Committee were unsure if the researcher had been advised correctly.

The Committee asked if the poster had been looked at by a PPI group. You confirmed that they had been looked over by a Community group who had given feedback. The Committee said they thought it was very busy and suggested that it may be better if it was simplified.

Approved documents

The documents reviewed and approved at the meeting were:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copies of advertisement materials for research participants [EAVE Poster]</td>
<td>1.0</td>
<td>16 March 2015</td>
</tr>
<tr>
<td>Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Insurance Confirmation]</td>
<td></td>
<td>29 May 2015</td>
</tr>
<tr>
<td>GP/consultant information sheets or letters [EAVE GP Letter]</td>
<td>1.0</td>
<td>20 May 2015</td>
</tr>
<tr>
<td>IRAS Checklist XML [Checklist_04062015]</td>
<td></td>
<td>04 June 2015</td>
</tr>
<tr>
<td>Letter from sponsor [Confirmation of Sponsorship - EAVE Study]</td>
<td></td>
<td>29 May 2015</td>
</tr>
<tr>
<td>Non-validated questionnaire [EAVE-Q]</td>
<td>3.0</td>
<td>28 January 2015</td>
</tr>
<tr>
<td>Non-validated questionnaire [EAVE Background Questionnaire]</td>
<td>1.0</td>
<td>16 March 2015</td>
</tr>
<tr>
<td>Other [EAVE Participant Debrief Sheet - eligible]</td>
<td>1.0</td>
<td>09 April 2015</td>
</tr>
<tr>
<td>Other [EAVE Participant Debrief Sheet - ineligible]</td>
<td>1.0</td>
<td>09 April 2015</td>
</tr>
<tr>
<td>Other [Certificate of liability insurance - EAVE Study]</td>
<td></td>
<td>29 May 2015</td>
</tr>
<tr>
<td>Other [PI Confirmation]</td>
<td></td>
<td>29 May 2015</td>
</tr>
<tr>
<td>Other [UoM Liability Insurance]</td>
<td></td>
<td>29 May 2015</td>
</tr>
<tr>
<td>Participant consent form [EAVE Consent Form]</td>
<td>1.0</td>
<td>16 March 2015</td>
</tr>
<tr>
<td>Participant consent form [EAVE Optional Consent Form]</td>
<td>1.0</td>
<td>16 March 2015</td>
</tr>
<tr>
<td>Participant information sheet (PIS) [EAVE Study PIS]</td>
<td>2.0</td>
<td>20 May 2015</td>
</tr>
<tr>
<td>REC Application Form [REC_Form_04062015]</td>
<td></td>
<td>04 June 2015</td>
</tr>
<tr>
<td>Research protocol or project proposal [EAVE Protocol]</td>
<td>1.0</td>
<td>16 March 2015</td>
</tr>
<tr>
<td>Summary CV for Chief Investigator (CI) [CI - Kay Gant - CV]</td>
<td>1/0</td>
<td>01 April 2015</td>
</tr>
<tr>
<td>Summary CV for supervisor (student research) [Dougal Hare - CV]</td>
<td></td>
<td>28 January 2015</td>
</tr>
<tr>
<td>Validated questionnaire [EDE-Q]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validated questionnaire [DASS-21]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validated questionnaire [WHOGOL-BREF]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

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

Reporting requirements

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

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

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

User Feedback

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

HRA Training

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

15/NW/0501 Please quote this number on all correspondence

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

Yours sincerely

Dr Lorraine Lighton (Chair)
Chair

E-mail: nrescommittee.northwest-gmwest@nhs.net

Enclosures:
List of names and professions of members who were present at the meeting and those who submitted written comments

“After ethical review – guidance for researchers”

Copy to:
Dr Dougal Hare, University of Manchester
Ms Sinead Audsley, Leeds & York Partnership NHS Foundation Trust
<table>
<thead>
<tr>
<th>Name</th>
<th>Profession</th>
<th>Present</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs Seonaid Beddows</td>
<td>Research Governance and Administration Manager</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Dr Janice Christie</td>
<td>Senior lecturer nursing</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Mr Jonathan Deans</td>
<td>Consultant in Head &amp; Neck Surgery</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Dr Peter Donnelly</td>
<td>Lay Member</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Julie Grindey</td>
<td>Research Midwife</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Mr Michael Hamor</td>
<td>Lay member</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Dr Lorraine Lighton (Chair)</td>
<td>Consultant in Communicable Diseases</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Dr Barry Miller</td>
<td>Consultant Anaesthetist</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Dr Peter Owen</td>
<td>Retired Mathematics Lecturer</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Dr Gideon Smith</td>
<td>Consultant in Public Health Medicine</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Also in attendance:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position (or reason for attending)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss Anna Bannister</td>
<td>REC Manager</td>
</tr>
<tr>
<td>Miss Katie Southard</td>
<td>REC Assistant</td>
</tr>
</tbody>
</table>
23 July 2015

Dr Kay Gant
Trainee Clinical Psychologist
Manchester Mental Health and Social Care Trust
Section for Clinical and Health Psychology
Zochonis Building, University of Manchester
Manchester
M13 SPL

Dear Dr Gant

Study title: The Experience of an Anorexic VoicE (EAVE) Study – testing the psychometric properties of a novel questionnaire measuring the presence and significance of an anorexic voice in anorexia nervosa.

REC reference: 15/NW/0501
Protocol number: 1.0
IRAS project ID: 170624

Thank you for your submission, I can confirm the REC has received the documents listed below and that these comply with the approval conditions detailed in our letter dated 15 July 2015.

Documents received

The documents received were as follows:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copies of advertisement materials for research participants</td>
<td>2.0</td>
<td>22 July 2015</td>
</tr>
<tr>
<td>[EAVE Poster]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other [Email clarification- response to favourable+conditions]</td>
<td></td>
<td>22 July 2015</td>
</tr>
<tr>
<td>Participant information sheet (PIS) [EAVE PIS]</td>
<td>3.0</td>
<td>22 July 2015</td>
</tr>
</tbody>
</table>

Approved documents

The final list of approved documentation for the study is therefore as follows:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copies of advertisement materials for research participants</td>
<td>2.0</td>
<td>22 July 2015</td>
</tr>
<tr>
<td>[EAVE Poster]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of Sponsor insurance or indemnity (non NHS Sponsors</td>
<td></td>
<td>29 May 2015</td>
</tr>
<tr>
<td>only) [Insurance Confirmation]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP/consultant information sheets or letters [EAVE GP Letter]</td>
<td>1.0</td>
<td>20 May 2015</td>
</tr>
<tr>
<td>Document/Resource</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>IRAS Checklist XML [Checklist_04062015]</td>
<td>04 June 2015</td>
<td></td>
</tr>
<tr>
<td>Letter from sponsor [Confirmation of Sponsorship - EAVE Study]</td>
<td>29 May 2015</td>
<td></td>
</tr>
<tr>
<td>Non-validated questionnaire [EAVE-Q]</td>
<td>28 January 2015</td>
<td></td>
</tr>
<tr>
<td>Non-validated questionnaire [EAVE Background Questionnaire]</td>
<td>16 March 2015</td>
<td></td>
</tr>
<tr>
<td>Other [EAVE Participant Debrief Sheet - eligible]</td>
<td>09 April 2015</td>
<td></td>
</tr>
<tr>
<td>Other [EAVE Participant Debrief Sheet - ineligible]</td>
<td>09 April 2015</td>
<td></td>
</tr>
<tr>
<td>Other [Certificate of liability insurance - EAVE Study]</td>
<td>29 May 2015</td>
<td></td>
</tr>
<tr>
<td>Other [PI Confirmation]</td>
<td>29 May 2015</td>
<td></td>
</tr>
<tr>
<td>Other [JoM Liability Insurance]</td>
<td>29 May 2015</td>
<td></td>
</tr>
<tr>
<td>Other [Email clarification- response to favourable+conditions]</td>
<td>22 July 2015</td>
<td></td>
</tr>
<tr>
<td>Participant consent form [EAVE Consent Form]</td>
<td>16 March 2015</td>
<td></td>
</tr>
<tr>
<td>Participant consent form [EAVE Optional Consent Form]</td>
<td>16 March 2015</td>
<td></td>
</tr>
<tr>
<td>Participant Information sheet (PIS) [EAVE PIS]</td>
<td>22 July 2015</td>
<td></td>
</tr>
<tr>
<td>REC Application Form [REC_Form_04062015]</td>
<td>04 June 2015</td>
<td></td>
</tr>
<tr>
<td>Research protocol or project proposal [EAVE Protocol]</td>
<td>16 March 2015</td>
<td></td>
</tr>
<tr>
<td>Summary CV for Chief Investigator (CI) [CI - Kay Gant - CV]</td>
<td>01 April 2015</td>
<td></td>
</tr>
<tr>
<td>Summary CV for supervisor (student research) [Dougal Hare - CV]</td>
<td>28 January 2015</td>
<td></td>
</tr>
<tr>
<td>Validated questionnaire [EDE-Q]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validated questionnaire [DASS-21]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validated questionnaire [WHOQOL-BREF]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You should ensure that the sponsor has a copy of the final documentation for the study. It is the sponsor’s responsibility to ensure that the documentation is made available to R&D offices at all participating sites.

15/NW/0501 Please quote this number on all correspondence

Yours sincerely

Katie Southard
REC Assistant

E-mail: nrescommittee.northwest-gmwest@nhs.net

Copy to: Dr Dougal Hare, University of Manchester
Ms Sinead Audsley, Leeds & York Partnership NHS Foundation Trust

A Research Ethics Committee established by the Health Research Authority
Appendix 6. Standardised protocol for cognitive interviews

VERSION 1: February 2014

The Anorexic Voice: Characterisation and measurement of voice hearing in Anorexia Nervosa

N.B: The interview will take the form of a conversation. Interviewees will have the opportunity to raise issues of importance to them. The topic guide may therefore change as data collection progresses.

A. Thank the participant for agreeing to be interviewed.

B. Reassure the participant about anonymity, confidentiality, and non-impact on service delivery.

C. Ask again if it is ok to record the interview, even though written consent will have been received.

D. Ask if there are any concerns before starting the interview.

E. Inform the participant that they can stop the interview at any point or refuse to answer questions during the interview. Reassure them that there are no right or wrong answers; the research is interested in their opinions and views.

Each participant will be shown a copy of the draft questionnaire, devised following phase 1 interviews. They will be asked to focus on one item at a time and asked the following about each item:

1. Please tell me in your own words what you think this item is asking you about?
2. How easy was it to understand?
3. How relevant is this item to you and your experience of 'the anorexic voice'?
4. How easy is it for you to remember the information you are being asked for?
5. Is there anything that you would change about this item?
6. Are the response options appropriate? Do they capture your response to this item OK?
7. Is there any reason you would find it difficult to answer this question?

At the end of the interview, participants will be asked:

- Are there any other comments you want to make about the questionnaire?
- Is there anything missing from the questionnaire, thinking about your experience of an 'anorexic voice'?
Appendix 7. The EAVE-Q (Experience of an Anorexic VoicE Questionnaire)

People who have anorexia nervosa often describe experiencing their thoughts and feelings as a critical, inner voice. Researchers have called this the ‘anorexic voice’, which is the term we will use in this questionnaire. However, other words or names that people with anorexia have said they use to describe this experience include:

“a negative dialogue”, “negative thoughts”, “anorexia-twisted thoughts”, “Ana”, “the inner voice”, “a constant companion” and “a poisonous presence”.

Some people describe this as a single voice, whilst others report having more than one voice.

Part 1 (please circle your responses)

1. Is an anorexic voice (AV) something you have experience of?  Yes  No
2. Have you experienced this in the last week?  Yes  No

If you answered yes to questions 1 and/or 2 above, please tell us more about this:

I call my AV ....................................................... (please leave blank if you do not have another word or name to describe your AV)

For questions 4 to 7 please circle your responses:

4. My AV is:  My own voice  Someone else’s voice  Both  Not sure
5. My AV is:  Male  Female  Male & female  Not sure
6. My AV is:  1 voice  2 voices  3 voices  4+ voices  Not sure
7. My AV has been there:  Before I started trying to lose weight  Since I started trying to lose weight  Not Sure

Part 2 (please tick one box for each question)

This questionnaire, the EAVE-Q, aims to increase our understanding of the AV by finding out about your experiences. Please read each question and tick the box that best represents your experience of your AV in the past week.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I experience my AV as thoughts that are not my own</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>My AV is a voice in my head which influences how I think and feel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>My AV is a feeling inside which influences what I can and can’t do</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>My AV is like hearing someone else’s thoughts and feelings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>My AV is part of who I am</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I see my AV as separate from my own identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>My AV is always there</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>My AV tells me that it’s the only thing I should rely on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>My AV is supportive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>My AV is comforting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>My AV is a friend to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>My AV understands me when other people don’t</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>My AV helps me to cope when things are difficult</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>My AV makes the things I do to lose weight seem OK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>My AV tells me I should be punished</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>My AV is so loud it’s hard to hear any other thoughts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>My AV gets louder when I’m feeling stressed or down</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>I believe everything my AV says</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>My AV becomes louder when I ignore it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>My AV gets louder when I eat something it says I shouldn’t</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>My AV bullies me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>My AV makes me feel weak</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>My AV controls me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>My AV criticises me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>My AV is always the same gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>My AV reminds me of someone I know</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>My AV is powerful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the past week.....</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------</td>
<td>----------</td>
<td>---------</td>
<td>-------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>28. My AV takes over me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. My AV is a positive part of my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. My AV is a negative part of my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. I can control my AV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. My AV makes me think other people just want me to get fat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. My AV tells me not to trust other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. My AV motivates me to want to lose weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. I see my AV as something that shouldn't be there</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. My AV is harmful to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. My AV misleads me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. My AV is strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. My AV makes me feel in control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. My AV gives me a positive sense of routine and order in my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. My AV makes me secretive and hide things from other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. My AV gets stronger when I gain weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43. My AV gets stronger when I lose weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44. My AV makes me feel anxious or panicky when I go against it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45. My AV makes me feel guilty when I go against it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46. My AV gives me rules and regulations I have to follow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47. My AV makes me feel ashamed when I go against it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48. Doing what my AV says makes me feel satisfied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49. Doing what my AV says makes me feel happy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50. My AV gives me a sense of purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51. My AV gives me a sense of achievement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52. I can ignore my AV if I really want to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53. It doesn't matter what I do, my AV always wins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>---------</td>
<td>-------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>In the past week.....</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54. Not doing what my AV tells me makes me feel exhausted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55. My AV makes me think I don’t deserve other people’s help</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. My AV makes me believe I don’t deserve food</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57. My AV makes me act like someone I don’t want to be</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58. My AV makes me a better person</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59. My AV makes me feel less alone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60. My AV makes me feel isolated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61. I want to get rid of my AV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62. My AV advises me to get help</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63. I feel angry with my AV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64. My AV makes me feel angry or frustrated with myself</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65. My AV makes me feel angry or frustrated with other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66. My AV makes me feel safe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67. I feel like I’m battling against my AV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68. I need to get rid of my AV to feel like I have completely recovered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69. Treatment should help me manage my AV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70. My AV makes me think that life isn’t worth living</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71. My AV makes me feel confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72. I feel lonely when my AV is not there</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73. My AV distresses me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74. My AV makes it hard for me to maintain relationships with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75. When I hear my AV negative images come into my mind</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76. When I hear my AV comforting images come into my mind</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77. My AV helps me block out painful thoughts and feelings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 8. Background questionnaire

Sociodemographic & Clinical History Questionnaire – Version 2.0, 05.11.2015

The Experience of an Anorexic VoicE (EAVE) Study

1. Do you have a diagnosis of anorexia? (please circle)  
   Yes  No

2. How old are you (in years)? ______________

3. What is your highest ever academic achievement (e.g. GCSE / High School Diploma; A-Level; University degree etc)?:  __________________________

4. What is your current weight in kilograms (kg): ______ OR pounds (lb): ______

5. What is your current height in metres: __________ OR feet and inches: _____________

6. What is your ethnicity? (please circle)

   Bangladeshi  Indian  Pakistani  Asian other  Black Carribbean

   Black African  Black other  Chinese  White British

   Other (Please specify…………………………) Do not wish to disclose

7. Your country of origin:

   UK  Canada  USA

   Other (Please specify…………………………)

8. What is your gender? (please circle)  
   Male  Female

9. How old were you when your eating disorder first started (in years): ______

10. How old were you when you were diagnosed with anorexia (in years)?: ______

11. Are you currently receiving treatment for anorexia?  
    Yes  No

12. Have you ever received treatment for anorexia?  
    Yes  No

   If you answered yes to receiving treatment:

   13. For how long have you been treated for anorexia in total (in years, including all current and past treatment)?: (Please circle)

       Less than 1 year  1-2 years  3-4 years  5-6 years  More than 6 years

       Not applicable

   14. Where I heard about this study:

       On-line  From a Health professional

       Somewhere else (please specify______________________ )
Appendix 9. The Eating Disorders Examination Questionnaire (EDE-Q)

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.

<table>
<thead>
<tr>
<th>Question</th>
<th>NO DAYS</th>
<th>1-5 DAYS</th>
<th>6-12 DAYS</th>
<th>13-15 DAYS</th>
<th>16-22 DAYS</th>
<th>23-27 DAYS</th>
<th>EVERY DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you been deliberately trying to limit the amount of food you eat...</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2. Have you gone for long periods of time (8 waking hours or more) without...</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3. Have you tried to exclude from your diet any foods that you like in order...</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4. Have you tried to follow definite rules regarding your eating (for example, a calorie limit)...</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5. Have you had a definite desire to have an empty stomach with the aim of influencing your shape or weight?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6. Have you had a definite desire to have a totally flat stomach?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>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)?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>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)?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9. Have you had a definite fear of losing control over eating?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10. Have you had a definite fear that you might gain weight?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11. Have you felt fat?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12. Have you had a strong desire to lose weight?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
**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)....

<table>
<thead>
<tr>
<th>Question</th>
<th>NO DAYS</th>
<th>1-5 DAYS</th>
<th>6-12 DAYS</th>
<th>13-15 DAYS</th>
<th>16-22 DAYS</th>
<th>23-27 DAYS</th>
<th>EVERY DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>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)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16  Over the past 28 days, how many times have you made yourself sick (vomit) as a means of controlling your shape or weight?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17  Over the past 28 days, how many times have you taken laxatives as a means of controlling your shape or weight?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18  Over the past 28 days, how many times have you exercised in a &quot;driven&quot; or &quot;compulsive&quot; way as a means of controlling your weight, shape or amount of fat, or to burn off calories?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Question</th>
<th>NONE OF THE TIMES</th>
<th>A FEW OF THE TIMES</th>
<th>LESS THAN HALF</th>
<th>HALF OF THE TIMES</th>
<th>MORE THAN HALF</th>
<th>MOST OF THE TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>19  Over the past 28 days, on how many days have you eaten in secret (i.e., furtively)? ... Do not count episodes of binge eating.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>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.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21  Over the past 28 days, how concerned have you been about other people seeing you eat? ... Do not count episodes of binge eating.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

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).

<table>
<thead>
<tr>
<th>Question</th>
<th>NOT AT ALL MARKEDLY</th>
<th>SLIGHTLY</th>
<th>MODERATELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Has your weight influenced how you think about (judge) yourself as a person?</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Has your shape influenced how you think about (judge) yourself as a person?</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>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?</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>How dissatisfied have you been with your weight?</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>How dissatisfied have you been with your shape?</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>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)?</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>How uncomfortable have you felt about others seeing your shape or figure (for example, in communal changing rooms, when swimming, or wearing tight clothes)?</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
</tbody>
</table>

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 ☐

PAGE 3/3
THANK YOU

EDE-Q 6.0
© 2008 Christopher G Fairburn and Sarah Beglin
Appendix 10. The Structured Clinical Interview for Diagnosis - Module I

SCID-RV (for DSM-5®) (Version 1.0.0)  Anorexia Nervosa  Feeding and Eating Disorders 1.1

I. FEEDING AND EATING DISORDERS

**ANOREXIA NERVOSA**

**ANOREXIA NERVOSA CRITERIA**

1. **SCREEN Q #12:** IF SCREENING QUESTION #12 ANSWERED "NO," CHECK HERE ___ AND SKIP TO "BULIMIA NERVOSA" 1.4

2. **IF QUESTION #12 ANSWERED "YES":** You've said that there was a time when you weighed much less than other people thought you ought to weigh...

3. **IF SCREENER NOT USED:** Now I would like to ask you some questions about your eating habits and your weight. Have you ever had a time when you weighed much less than other people thought you ought to weigh?

   **IF YES:** Why was that? How much did you weigh? How old were you then? How tall were you?

4. **IF LIFETIME RATING OF "3":** During the past 3 months, since (3 MONTHS AGO), what is the lowest your weight has been?

5. **At that time, were you very afraid that you could become fat?**

   **IF NO:** Tell me about your eating habits. (Have you avoided high-calorie foods or high-fat foods? How strict are you about it? Have you ever thrown up after you eaten? How often? Do you exercise a lot after you eat?)

6. **IF LIFETIME RATING OF "3":** Has this also been the case during the past 3 months, since (3 MONTHS AGO)?

7. **At your lowest weight, did you still feel too fat or that part of your body was too fat?**

   **IF NO:** Did you need to be very thin in order to feel better about yourself?

   **IF NO AND LOW WEIGHT IS MEDICALLY SERIOUS:** When you were that thin, did anybody tell you it could be dangerous to your health to be that thin? (What did you think?)

   **IF LIFETIME RATING OF "3":** Has this also been the case in the past 3 months, since (3 MONTHS AGO)?

**ANOREXIA NERVOSA CRITERIA A, B, AND C ARE CODED "3"**

? = inadequate information  1 = absent or false  2 = subthreshold  3 = threshold or true

157
*ANOREXIA NERVOSA CHRONOLOGY*

ANOREXIA NERVOSA CRITERIA A, B, AND C ARE CODED "3" FOR THE PAST 3 MONTHS

PAST ANOREXIA NERVOSA | CURRENT ANOREXIA NERVOSA

**Indicate current severity** by circling the appropriate number. (The level of severity may be increased to reflect clinical symptoms, the degree of functional disability, and the need for supervision.)

1 - Mild: BMI ≥ 17 kg/m²
2 - Moderate: BMI 16.01-16.99 kg/m²
3 - Severe: BMI 15.01-15.99 kg/m²
4 - Extreme: BMI < 15 kg/m²

(Refer to Page 1.12 for chart to help in determining Body Mass Index)

CONTINUE WITH "AGE AT ONSET" NEXT PAGE.

**Indicate type of remission** by circling the appropriate number:

1 - In partial remission: After full criteria for Anorexia Nervosa were previously met, Criterion A (low body weight) has not been met for a sustained period, but either Criterion B (intense fear of gaining weight or becoming fat or behavior that interferes with weight gain) or Criterion C (disturbances in self-perception of weight and shape) is still met.

2 - In full remission: After full criteria for Anorexia Nervosa were previously met, none of the criteria have been met for a sustained period of time.

When did you last have (ANY SXS) a symptom of Anorexia Nervosa? Number of months prior to interview when last of ANOREXIA NERVOSA? __ __ __

? = Inadequate information
1 = absent or false
2 = subthreshold
3 = threshold or true
SCID-RV (for DSM-5®) (Version 1.0.0) Anorexia Nervosa Feeding and Eating Disorders 1.3

*AGE AT ONSET*

IF UNKNOWN: How old were you when you first started having (SXS OF ANOREXIA NERVOSA)?

IF ANOREXIA NERVOSA IS NOT CURRENT, GO TO "BULIMIA NERVOSA." 1.4.

Do you have eating binges in which you eat a lot of food in a short period of time and feel that your eating is out of control? (How often?)

IF NO: What kinds of things have you done to keep weight off? (Do you ever make yourself vomit or take laxatives, enemas, or water pills? How often?)

Specify subtype for current episode: (circle the appropriate number)

1 – Restricting type: During the last 3 months, the individual has NOT engaged in recurrent episodes of binge eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas). This subtype describes presentations in which weight loss is accomplished primarily through dieting, fasting and/or excessive exercise.

2 – Binge-eating/purging type: During last 3 months, the individual has engaged in recurrent episodes of binge-eating or purging behavior (i.e., self-induced vomiting or misuse of laxatives, diuretics, or enemas).

? = inadequate information 1 = absent or false 2 = subthreshold 3 = threshold or true
Appendix 11. The Depression Anxiety Stress Scale (DASS-21)

### DASS 21

<table>
<thead>
<tr>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
</table>

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement. The rating scale is as follows:

0 Did not apply to me at all - NEVER
1 Applied to me to some degree, or some of the time - SOMETIMES
2 Applied to me to a considerable degree, or a good part of the time - OFTEN
3 Applied to me very much, or most of the time - ALMOST ALWAYS

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>S</th>
<th>O</th>
<th>AA</th>
<th>FOR OFFICE USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found it hard to wind down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was aware of dryness of my mouth</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I couldn’t seem to experience any positive feeling at all</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found it difficult to work up the initiative to do things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I tended to over-react to situations</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I experienced trembling (eg, in the hands)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt that I was using a lot of nervous energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was worried about situations in which I might panic and make a fool of myself</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt that I had nothing to look forward to</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found myself getting agitated</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found it difficult to relax</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt down-hearted and blue</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was intolerant of anything that kept me from getting on with what I was doing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt I was close to panic</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was unable to become enthusiastic about anything</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt I wasn’t worth much as a person</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt that I was rather touchy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt scared without any good reason</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt that life was meaningless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

This document may be freely downloaded and distributed on condition no change is made to the content. The information in this document is not intended as a substitute for professional medical advice, diagnosis or treatment. Not to be used for commercial purposes and not to be hosted electronically outside of the Black Dog Institute website. www.blackdoginstitute.org.au
Appendix 12. The World Health Organisation Quality of Life Scale (WHOQOL-BREF)

WHOQOL-BREF

The following questions ask how you feel about your quality of life, health, or other areas of your life. I will read out each question to you, along with the response options. Please choose the answer that appears most appropriate. If you are unsure about which response to give to a question, the first response you think of is often the best one.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last four weeks.

<table>
<thead>
<tr>
<th></th>
<th>Very poor</th>
<th>Poor</th>
<th>Neither poor nor good</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>How would you rate your quality of life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>How satisfied are you with your health?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The following questions ask about how much you have experienced certain things in the last four weeks.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>A moderate amount</th>
<th>Very much</th>
<th>An extreme amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>To what extent do you feel that physical pain prevents you from doing what you need to do?</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>How much do you need any medical treatment to function in your daily life?</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>How much do you enjoy life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>To what extent do you feel your life to be meaningful?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>How well are you able to concentrate?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>How safe do you feel in your daily life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9.</td>
<td>How healthy is your physical environment?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
The following questions ask about how completely you experience or were able to do certain things in the last four weeks.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>Moderately</th>
<th>Mostly</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Do you have enough energy for everyday life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Are you able to accept your bodily appearance?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Have you enough money to meet your needs?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. How available to you is the information that you need in your day-to-day life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. To what extent do you have the opportunity for leisure activities?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Very poor</th>
<th>Poor</th>
<th>Neither poor nor good</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. How well are you able to get around?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. How satisfied are you with your sleep?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. How satisfied are you with your ability to perform your daily living activities?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. How satisfied are you with your capacity for work?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. How satisfied are you with yourself?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20.</td>
<td>How satisfied are you with your personal relationships?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21.</td>
<td>How satisfied are you with your sex life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22.</td>
<td>How satisfied are you with the support you get from your friends?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23.</td>
<td>How satisfied are you with the conditions of your living place?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24.</td>
<td>How satisfied are you with your access to health services?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25.</td>
<td>How satisfied are you with your transport?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The following question refers to how often you have felt or experienced certain things in the last four weeks:

<table>
<thead>
<tr>
<th>26.</th>
<th>How often do you have negative feelings such as blue mood, despair, anxiety, depression?</th>
<th>Never</th>
<th>Seldom</th>
<th>Quite often</th>
<th>Very often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Do you have any comments about the assessment?

[The following table should be completed after the interview is finished]

<table>
<thead>
<tr>
<th>27.</th>
<th>Domain 1</th>
<th>Equations for computing domain scores</th>
<th>Raw score</th>
<th>Transformed scores*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17 + Q18</td>
<td>[equation]</td>
<td>a. = b: c:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26)</td>
<td>[equation]</td>
<td>a. = b: c:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q20 + Q21 + Q22</td>
<td>[equation]</td>
<td>a. = b: c:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25</td>
<td>[equation]</td>
<td>a. = b: c:</td>
<td></td>
</tr>
</tbody>
</table>

* See Procedures Manual, pages 13-15
Appendix 13. EAVE study flyer

The E.A.V.E Study
The Experience of an Anorexic VoicE

About this study...
People with a diagnosis of anorexia often describe experiencing their thoughts and feelings as an inner voice. Researchers have called this the 'anorexic voice'. We have developed a new questionnaire - the EAVE-Q - to find out more about the anorexic voice. We hope this questionnaire will help us to better understand anorexia.

Can I take part?
Yes if you have a diagnosis of anorexia, are aged 16+ and meet criteria on an eating disorder symptom questionnaire.

What do I have to do?
This is a questionnaire study and will take around 30 to 45 minutes to complete. You can take part online or in person. All of your answers are saved anonymously and are kept confidential.

What do I get out of taking part?
• This study will help us to better understand anorexia and will be used in future research and treatment.
• Everyone who takes part will have the option to be entered into a free-prize draw with the chance to win an Amazon voucher.
• Everyone who takes part will receive a summary of what we found.

How do I take part?
Online by visiting our website:
www.psych-ssl.manchester.ac.uk/questionnaires/participantinformation.aspx?study_id=200
In person by contacting Dr Kay Gant (Trainee Clinical Psychologist) at Kay.Hampshire@manchester.postgrad.ac.uk
Appendix 14. The Final EAVE-Q

People who have anorexia nervosa often describe experiencing their thoughts and feelings as a critical, inner voice. Researchers have called this the 'anorexic voice', which is the term we will use in this questionnaire. However, other words or names that people with anorexia have said they use to describe this experience include:

"a negative dialogue", "negative thoughts", "anorexia-twisted thoughts", "Ana", "the inner voice", "a constant companion" and "a poisonous presence".

Some people describe this as a single voice, whilst others report having more than one voice.

Part 1 (please circle or write your responses)

1. Is an anorexic voice (AV) something you have experience of?  
   Yes  
   No

2. Have you experienced this in the last week?  
   Yes  
   No

If you answered yes to questions 1 and/or 2 above, please tell us more about this:

3. Please describe what you mean by your anorexic voice:

   …………………………………………………………………………………………………………………………………………………
   …………………………………………………………………………………………………………………………………………………
   …………………………………………………………………………………………………………………………………………………

4. I call my AV ………………………………………….. (please leave blank if you do not have another word or name to describe your AV)

For questions 4 to 7 please circle your responses:

5. My AV is:  
   My own voice  
   Someone else’s voice  
   Both  
   Neither / Not sure

6. My AV is:  
   Male  
   Female  
   Male & female  
   Neither / Not sure

7. My AV is:  
   1 voice  
   2 voices  
   3 voices  
   4+ voices  
   Not sure

8. My AV has been there:  
   Before I started trying to lose weight  
   Since I started trying to lose weight  
   Not sure

Part 2 (please tick one box for each question)

This questionnaire, the EAVE-Q, aims to increase our understanding of the AV by finding out about your experiences. Please read each question and tick the box that best represents your experience of your AV in the past week.
In the past week.....

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>My AV gives me a positive sense of routine and order in my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>My AV makes me feel in control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>My AV controls me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>My AV is a friend to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>My AV is comforting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Doing what my AV says makes me feel happy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>My AV makes me think I don’t deserve other people’s help</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>My AV understands me when other people don’t</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>My AV makes me think other people just want me to get fat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>My AV tells me not to trust other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>My AV is like hearing someone else’s thoughts and feelings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>I see my AV as separate from my own identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I can ignore my AV if I really want to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>My AV is supportive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>I experience my AV as thoughts that are not my own</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>It doesn’t matter what I do, my AV always wins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Doing what my AV says makes me feel satisfied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>My AV makes me feel confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part 3 (your feedback): As the EAVE-Q is a new questionnaire, we would be pleased to learn about any thoughts or comments you have about it. Please write these in the box below.

Your thoughts and comments:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………