Understanding 'Ed': A theoretical and empirical review of the internal eating disorder 'voice'

Matthew Pugh

Many individuals with eating disorders make reference to an internal eating disorder 'voice' or 'self' (EDV/S): a phenomenon which is poorly understood. This paper reviews conceptual and empirical literature relating to the EDV/S. Criticisms and controversies surrounding such experiences are also discussed with reference to current research. In order to clarify how and why internal voices contribute to disordered eating, four theoretical frameworks which help contextualise the EDV/S are presented: cognitive theories of voices; interpersonal theories of voices; trauma-based theories of voices; and dialogical self theory. The paper concludes by proposing a preliminary, multifactorial model of the EDV/S which is composed of four maintaining factors: EDV/S dialogical patterns, EDV/S appraisals, EDV/S relating styles, and early trauma and associated interpersonal schemata. Directions for treatment and future research are discussed.
Keywords: *Anorexic voice, dialogical self theory, eating disorders, eating disorder voice, voices.*

Introducing 'Ed'

IT IS STRIKING just how often individuals with eating disorders (EDs) describe an internal 'voice' of their disorder (Broussard, 2005; Tierney & Fox, 2010). For others, disordered eating is represented not so much by a voice, but rather a discrete component of personality: an anorexic or bulimic 'sub-self' which is composed of 'needs, feelings, perceptions, and behavior that has been dissociated from the patient's total self-experience' (Sands, 1991, p.37). References to the eating disorder 'voice' or 'self' (EDV/S) are apparent in early clinical descriptions of eating psychopathology (e.g. Bruch, 1978; Dym, 1985; Torem, 1987) and feature in personal accounts of recovery (e.g. Woolf, 2012). While the EDV/S has received some recognition within cognitive-behavioural (Mountford & Waller, 2006), psychodynamic (Davis, 1991), experiential (Dolhanty & Greenberg, 2009), and systemic treatments for EDs (Schwartz, 1987), these experiences are rarely a focus for treat-ment. Moreover, direct investigations of this phenomenon have only emerged within the last decade. Albeit preliminary, this research has highlighted links between core features of disordered eating and various aspects of the EDV/S including its perceived power, hostility, and intensity (Noordenbos & Van Geest, 2017; Pugh & Waller, 2016, Scott et al., 2014)

Nature of the EDV/S

Conceptual tensions surround the EDV/S, with some describing it as a metaphorical experience (Graham et al., 2019) and others suggesting that it reflects the multi-voiced nature of human personality (Pugh & Waller, 2018). The EDV/S has most recently been defined as a hostile internal dialogue (i.e. second- or third-person commentary) related to eating, shape, weight, and their implications for self-worth (Pugh, 2016). Single EDV/S are most frequently reported by individuals, although two or more voices

are not unusual (Noordenbos, 2017). Such experiences also appear to be relatively common across ED diagnoses, with an estimated incidence of around 75 per cent (Pugh et al., 2018). While most individuals recognise that the EDV/S is internally generated, it is usually described as alien to one's sense of self, possibly as a result of dissociative processes. This distinguishes the EDV/S from the auditory hallucinations found in psychosis to some degree, as well as the amnesic 'alters' described in dissociative identity disorder. However, given that EDs and psychosis appear to overlap in multiple ways (Rojo-Moreno et al., 2011; Solmi et al., 2018), it may be more accurate to hypothesise that EDV/S lies at varying points on a continuum between inner speech and auditory hallucinations for different individuals, at different points in time[1] (Pugh & Waller, 2018).

Relating to the EDV/S

Individuals often describe meaningful relationships with their EDV/S – so meaningful, in fact, that it may represent a primary object relationship (Davis, 1991). Usually the EDV/S is seen as possessing some positive qualities such as being reassuring, offering companionship, and regulating distress, particularly during the early stages of illness (Tierney & Fox, 2010). Accordingly, it has been suggested that the EDV/S may partly function as a substitute system for fulfilling individuals' core emotional needs, particularly those which were unmet in early attachment relationships (Sands, 1991). It follows, then, that maintaining proximity to this alternate, seemingly positive attachment figure may limit motivation to change and contribute to the maintenance of ED symptoms (Mantilla et al., 2018b).

At the same time, most individuals describe the EDV/S as a highly critical, coercive, and controlling presence, particularly during the later stages of illness; a toxic 'inner bully' which demands strict obedience and motivates increasingly destructive eating behaviours (Williams & Reid, 2012). Caught between these polarised experiences of the EDV/S, many individuals feel entrapped, defeated, and subordinate to the voice of their ED (Pugh & Waller, 2017). Consequently, attachments to this aspect of the self are often insecure (Mantilla et al., 2018b). Consistent with these findings, research suggests that changing the ways in which individuals perceive, relate, and respond to the EDV/S may play a role in recovery from disordered eating (Eaton, 2019).

The EDV/S over time

Longitudinal research is yet to examine how the EDV/S changes over time. However, a recent synthesis of qualitative studies suggests that experiences of the EDV/S pass through a series of stages (Pugh et al., 2018) (Table 1). To summarise, the EDV/S is usually seen to enter individuals' lives during periods of insecurity and instability. For others, critical internal voices are present before the onset of disordered eating but intensify alongside the emergence of ED symptoms. Often a supportive presence at first, the EDV/S is observed to become hostile and demanding over time, resulting in an escalation in disordered eating behaviour. For some, submission to the EDV/S is gradually replaced by a desire to escape this relationship, motivating acts of rebellion and culminating in recovery. While the EDV/S often fades over time, it does not always disappear. Furthermore, new and unexpected challenges may accompany the process of emancipation: individuals may grieve the loss of their relationship with the EDV/S, while others fear that it will escalate in the future. Similar changes in how individuals relate to voices have been reported in other clinical groups (e.g. De Jager et al., 2016).

---

[1] It has been suggested that experiences of childhood trauma and dissociation-proneness may be responsible for generating EDV/S which are experienced as more differentiated and 'split-off' from individuals' sense of self (Watkins, 1978).

Table 1: Time course of the EDV/S

Stage	Description
1. Direction	The EDV/S initially fulfills positive functions. Relating to the EDV/S is mainly affiliative, albeit contingent upon compliance, resulting in attachment. Internal dialogues are generally cooperative but increasingly monological. Positive EDV/S appraisals become established and motivation to change the relationship is often low. ED symptoms emerge.
2. Domination	The EDV/S is experienced as increasingly hostile and controlling. Relating to the EDV/S is characterised by dominance and coercion. Internal dialogues are increasingly imbalanced and hierarchical. Negative appraisals regarding the intent and relative power of EDV/S emerge. ED symptoms escalate, although motivation to change may remain limited.
3. Disempowerment	The EDV/S is experienced as punitive and overwhelming, generating submissive and defeated responses. The EDV/S dominates internal dialogues and undermines self-esteem and self-efficacy. Individuals are motivated to change their relationship with the EDV/S but may doubt their ability to do so. ED symptoms may continue to escalate.
4. Defiance	Individuals begin to oppose the EDV/S. Power differentials begin to shift, generating fervent EDV/S counter-attacks. Internal dialogues are conflictual and polarised. ED symptoms may begin to improve, although setbacks and periods of disempowerment still occur (see stage three).
5. Deliverance	Power differentials now favour the individual rather than the EDV/S. Individuals are better able to 'step back' and decentre from the EDV/S. Internal dialogues are less conflicted and more harmonious. More adaptive internal voices begin to emerge. ED symptoms continue to improve.
6. Disquiet	The EDV/S fades over time or is considerably less powerful. Recovery from disordered ED may be accompanied by feelings of anxiety or loss: individuals are vigilant to the EDV/S returning or miss its positive aspects. Intermittent 'skirmishes' with the EDV/S are not uncommon.

Criticisms of 'Ed'

While the EDV/S appears to play a role in the maintenance of some EDs, this line of research has attracted a degree of criticism (Pugh, 2016). Some of the conceptual controversies surrounding the EDV/S are now discussed alongside alternative perspectives garnered from the literature.

The EDV/S is a product of therapist socialisation

It has been suggested that the EDV/S may partly stem from therapists' use of 'externalising conversations' (White & Epston, 1990): an intervention originating from Narrative Therapy which aims to separate the person from the problem by placing it outside of the self. Indeed, externalisation techniques have proved remarkably popular in treatments for AN (Treasure, 1997), particularly family-based therapies (Lock et al., 2002). However, two observations conflict with this argument. First, the EDV/S has been described by individuals who have not yet entered mental health services or talking therapies (Williams et al., 2016). Second, and more convincingly, references to the EDV/S predate use of externalisation techniques in psychotherapy (e.g. Bruch, 1978; Dym, 1985; Schwartz, 1987). This is not to say that EDV/S is never a product of therapeutic socialisation – sometimes it is. Rather, such experiences might also represent a legitimate feature of disordered eating for some individuals.

The EDV/S is indistinguishable from dysfunctional beliefs about eating

Dysfunctional beliefs relating to the importance of shape, weight, and their control often play a role in the maintenance of EDs (e.g. Fairburn, 1997; Fairburn et al., 1999). Perhaps the EDV/S is simply another way of describing these cognitions. If so, near-perfect associations between measures of the EDV/S and negative attitudes towards eating would be expected. However, research indicates that this is not the case (Kay et al., in press; Pugh & Waller, 2016). Furthermore, many individuals distinguish the EDV/S from other patterns of negative thinking associated with EDs, such as self-criticism (Noordenbos et al., 2014).

The EDV/S is a redundant feature of eating disorders

While the EDV/S represents a feature of some EDs, such experiences might not be clinically relevant. Recent research would suggest otherwise. As already noted, significant associations exist between key dimensions of eating psychopathology (e.g. negative eating attitudes and duration of illness) and characteristics of the EDV/S (e.g. its power relative to the self) (Noordenbos et al., 2014; Pugh & Waller, 2016, 2017). Preliminary research also indicates that the EDV/S influences responses to psychotherapy, although the exact nature of these interactions requires clarification (Hormoz et al., 2019). Most importantly, many individuals with EDs identify the EDV/S as an important feature of their illness and one which warrants clinical attention (Tierney & Fox, 2010).

The EDV/S is not a 'True' perceptual experience

It has been argued that because the EDV/S is not a 'true' hallucinatory experience, it does not represent a meaningful feature of psychopathology (for exceptions, see Rojo-Moreno et al., 2011). It is worth noting that attempts to differentiate types of voice experience (internal versus external voices; 'true' versus 'pseudo' hallucinations; voice hearing versus voice experiencing) have failed in research settings (see Moskowitz & Corstens, 2007, for a review). Moreover, such distinctions offer little in terms of clinical utility. These points have led to the conclusion that voices might be best conceptualised as a dissociative, rather than psychotic, experience which is related to the multiple 'selves' and modes of information-processing which are common to all individuals (Moskowitz et al., 2012). As we shall see, experiences of self-multiplicity and dissociation-proneness are particularly relevant to EDs.

Making sense of 'Ed'

Research indicates that the EDV/S plays a role in some EDs (Aya et al., 2019). However, several observations require exploration. First, a significant proportion of individuals who experience critical internal voices – including those related to eating, shape, and weight – do not experience ED symptoms (Nordenboos et al., 2014). Second, it appears that the EDV/S sometimes persists in individuals who have recovered from disordered eating (Bell, 2013; De Giacomi, 2019). Third, research indicates that conspicuous features of the EDV/S including its frequency and distressing nature are inconsistently related to eating psychopathology (Pugh et al., 2018). These findings beg the question: how, and why, does the EDV/S influence attitudes and behaviours related to eating, shape, and weight? Theories of voice-experiencing may provide some answers.

Dialogical self-theory

Dialogical self-theory views the self as being composed of multiple, autonomous 'parts' or 'voices' which are capable of engaging in dialogical relationships with one another (Hermans, 2004). These voices are also believed to be subject to power dynamics, with some dominating or suppressing others. Dialogical self-theory suggests that psychological impairment stems from discordance between internal voices. Causes of such disharmony include the dominance of maladaptive voices (*tyrannical* internal dialogues),

limited numbers of voices (*uniform* internal dialogues), non-cooperation between voices (*conflictual* internal dialogues), rigid organisations of voices (*inflexible* internal dialogues), or chaotic interactions between voices (*disorganised* internal dialogues). In extreme cases, traumatic events may cause internal voices to become entirely dissociated and 'split off' from one another, resulting in a fragmented sense of self (Watkins, 1978).

Individuals with EDs describe an inner world which is often markedly multi-voiced and dialogical (Schwartz, 1987). These voices are often highly conflicted, with some encouraging disordered eating and others opposing it (*conflictual* dialogues) (Bruch, 1978; Tierney & Fox, 2010). Other individuals describe their EDV/S as overwhelmingly hostile and capable of 'taking over' their internal world during acute illness (*monolithic* dialogues) (Williams & Reid, 2012). In both cases, ED voices are characteristically repetitive, perseverative, and ruminatory (*inflexible* dialogues). Recovery from disordered eating also appears to be related to changes in the dialogical self. These include the strengthening of adaptive internal voices which counteract the EDV/S (e.g. 'compassionate', 'healthy', or 'recovered-focused' voices), distancing oneself from toxic statements arising from the EDV/S, and the emergence of higher-order meta-voices which enable decentred reflection on the EDV/S (Bell, 2003; Salvini et al., 2012).

In summary, accounts of the EDV/S are largely consistent with dialogical self-theory. More specifically, existent research suggests that the EDV/S influences eating pathology via hostile-monolithic, inflexible, and conflictual internal dialogues. Studies also suggest that decentring from the EDV/S, alongside the development of more functional internal voices, contributes to improvements in disordered eating.

Cognitive theory

Researching exploring auditory hallucinations in community groups indicates that voice-related experiences are relatively common (Beavan et al., 2011). Furthermore, not all voices result in distress or functional impairments (Lawrence et al., 2010). These observations suggest that factors other than the presence of internal voices contribute to the emergence of psychopathology. The cognitive model of auditory hallucinations (Chadwick & Birchwood, 1994) suggests that emotional and behavioural responses to voices are influenced by their appraisal. Specifically, voices that are perceived as omnipotent (all-knowing), malevolent (with hostile intent), and more powerful than the self tend to generate emotional distress and resistant responses. In contrast, individuals are more likely to engage with benevolent voices. That said, benign voices can also lead to social impairments as a result of preoccupation (Favrod et al., 2004). Birchwood and Chadwick (1997) have gone on to suggest that how individuals come to appraise voices may originate from their 'core interpersonal schemata which… embody the individual's past experiences of interpersonal relationships, particularly early relationships' (p.1352).

Originally developed within the context of auditory hallucinations, the cognitive model also provides insights into how internal voices contribute to other disorders. In a series of studies, Pugh and colleagues explored relationships between EDV/S appraisals and aspects of eating psychopathology (Pugh & Waller, 2016, 2017; Pugh et al., 2018). Results indicated that voices perceived as more powerful than self were associated with negative eating attitudes across diagnoses (anorexia nervosa, bulimia nervosa, and 'unspecified' EDs), while positive beliefs about the EDV/S were linked to unhealthy food-related attitudes in two studies. Furthermore, individuals diagnosed with anorexia nervosa who reported a strong EDV/S tended to suffer from more severe EDs, characterised by longer durations of illness and greater use of compensatory behaviours (e.g. purging). Research is yet to determine whether EDV/S appraisals are related to maladaptive interpersonal schemas. However, such an association seems plausible

given that early maladaptive schemas are pronounced in EDs (Pugh, 2016).

EDV/S appraisals may account for the interactions between internal voices and disordered eating-related attitudes. Specifically, it appears that ED voices that are perceived to have the dual characteristics of being more powerful than the self (dominant) and with positive intent (benevolent) tend to exert the most deleterious effects upon attitudes towards shape, weight, and eating. Assessing, re-evaluating, and testing out appraisals about the EDV/S may, therefore, represent a target for psychological therapies. Positive beliefs about ED voices may also contribute to the high levels of ambivalence found in many EDs.
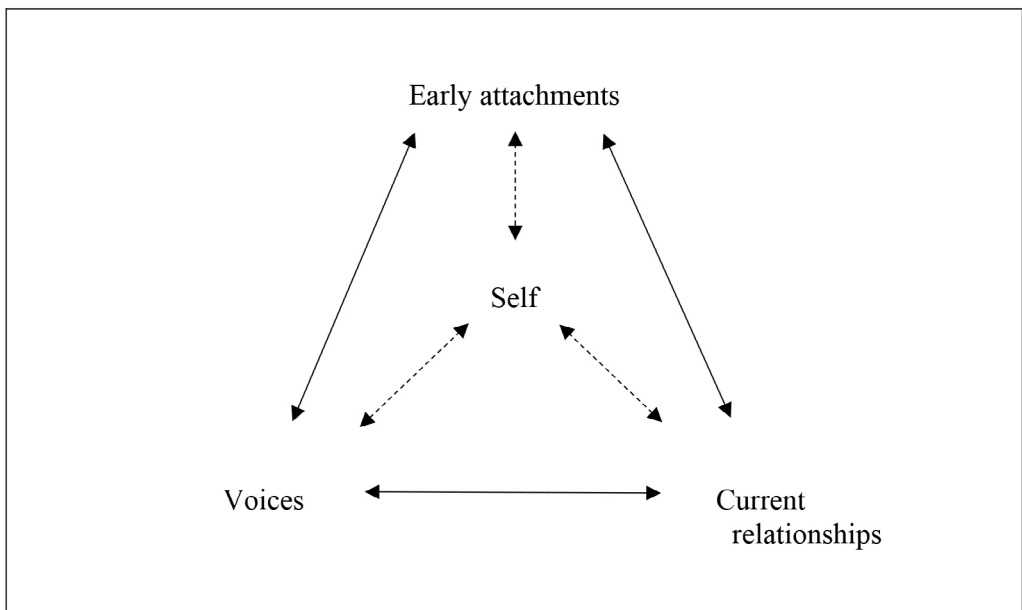
Interpersonal theory
Many individuals describe coherent and personally meaningful relationships with internal voices. Interpersonal theories of voices such as Gilbert's (1989) social rank theory and Birtchnell's (1996) relating theory suggest that voices can be understood within relational frameworks. Specifically, interpersonal theories propose a bidirectional associ-

ation between interactive patterns in external relationships and relationships with voices (Figure 1). Perceptions of low social rank, for example, are likely to generate submissive responses within both social (self-other) relationships and internal (self-self) relationships. These patterns of interaction are also like to be complimentary in that certain relational behaviours (e.g. domineering voices) tend to elicit reciprocal responses (e.g. obedience to voices) ('interpersonal complementarity') (Carson, 1969). Finally, attachment is believed to influence relating to voices insofar as one's experience of early relationships will inform how individuals treat themselves in later life ('interpersonal copy process') (Benjamin, 2003). Interpersonal theories of voice are supported by a growing body of research which highlights the overlap between social interactions and interactions with voices in psychosis (e.g. Hayward, 2003; Hayward, et al., 2011).

Individuals with EDs tend to perceive themselves as inferior and lower in rank compared to their EDV/S; a power differential that has been linked to increased ED symptomatology (Pugh & Waller, 2016; Pugh

Figure 1: Interpersonal model of voices

et al., 2018). Furthermore, responding to the EDV/S in subordinate ways (e.g. submitting or sulking) is associated with more significant ED symptoms (Mantilla et al., 2018a). Consistent with interpersonal theories of voices, these styles of relating to the EDV/S mirror the interpersonal patterns commonly found in ED groups. For example, individuals with EDs tend to view themselves as inferior to others and struggle to assert themselves in external relationships (Arcelus et al., 2013). Changing how individuals relate to the EDV/S also appears to play a role in recovery from disordered eating; however, research is mixed in terms of which styles of relating are most beneficial. Several studies suggest that learning to oppose and control the EDV/S contributes to reduced ED symptoms (Bell, 2013; Duncan et al., 2015; Jenkins & Ogden, 2012; Mantilla et al., 2018a), while other research has associated 'fighting' the EDV/S with more severe ED symptoms and emotional distress (De Giacomi, 2019; Pugh & Waller, 2017). These latter findings are consistent with research demonstrating that aggressive counter-responding (i.e. rejecting forms of anger) is not only an ineffective way of managing self-criticism, but also risks stimulating threat-focused affective systems and heightening attention towards voices (Gilbert, 2010; Kramer & Pascual-Leone, 2016; Pugh, 2016). Rather, responding to distressing internal voices with healthy assertiveness rather than maladaptive anger has proven effective in other voice-experiencing groups (Hayward et al., 2017) and may be more constructive in EDs. Alternatively, it may be that responding to the EDV/S from a distanced, rather than interactive, relational position is most advantageous (Bell, 2013; Pugh & Waller, 2017).

While EDV/S research is consistent with interpersonal theories of voices, studies are yet to directly explore the associations between relating to ED voices and relating to external individuals. Assuming that such a link exists, interpersonal theories have important implications for treatment. First, individuals may benefit from formulations which situate the EDV/S in the context of past and present relationships. Second, treatments will need to address how individuals relate to ED voices: useful interventions might include limiting dysfunctional responses (e.g. submitting, complying) alongside the development of new functional ways of relating to the self and others (e.g. compassionate assertiveness). Third, if individuals are to give up their connection with the EDV/S, it seems important that the needs underlying this attachment are fulfilled within the therapeutic relationship, at least temporarily.

Trauma-related theory

The trauma-dissociation model (TDM) of auditory hallucinations proposes that distressing internal voices reflect dissociated traumatic content arising from maltreatment (Longden et al., 2012). To illustrate, parental emotional abuse is likely to be internalised in the form of distressing images or introjected self-criticism. As a result of dissociative processes, however, these mental events are experienced as alien and 'voice-like'. Numerous studies have supported the trauma-dissociation model of voice experiencing, demonstrating that dissociation reliably mediates the relationship between childhood abuse and auditory hallucinations in psychosis (e.g. Perona-Garcelan et al., 2012).

The TDM seems relevant to EDV/S for two reasons. First, disordered eating has been linked to multifarious forms of childhood abuse (Molendijk et al., 2017), most notably emotional abuse (Kent & Waller, 2000). Second, dissociation appears to be relatively common in ED groups (Dalle et al., 1996). To determine whether trauma and dissociation are related to ED voices, Pugh and colleagues (Pugh et al., 2018) explored associations between the perceived power of the EDV/S, dissociation proneness, and experiences of childhood trauma in a mixed ED group. Consistent with the TDM, ED voice power was found to be positively related to childhood emotional abuse,

but not other early traumas, and this association was partly mediated by dissociation. Albeit preliminary, these findings suggest that the EDV may reflect experiences of early maltreatment such as criticism and rejection. These findings have recently been corroborated by qualitative research highlighting the thematic links between the content of the EDV/S and the voices of critical caregivers (De Giacomi, 2019).

Regarding treatment implications, the TDM suggests that the EDV/S are partially memory-based and can be understood within a developmental-interpersonal framework. Situating the EDV/S within individuals' biography may help support meaning-making, therefore. The TDM also points towards the potential value of trauma-focused interventions when working with the EDV/S. These could include grounding techniques for managing trauma-related symptoms and experiential exercises for resolving attachment-related injuries related to internal voices (e.g. empty-chair confrontation of past abusers or imagery rescripting) (Arntz, 2012; Pugh, 2019).

A multi-factoral model of the EDV/S

Studies exploring the EDV/S are consistent with several theoretical frameworks for making sense of voices. Based upon this research, a preliminary model of the EDV/S is now presented. This model takes the view that rather than being a purely metaphorical experience, the EDV/S reflects the multi-voiced internal worlds which are common to all individuals. It is also hoped that this model will generate testable hypothesises for future research and inform psychotherapeutic interventions for addressing the EDV/S.

In summary, existent research suggests that four inter-related factors play a role in perpetuating EDV/S-related experiences which in turn contribute to eating psychopathology: 1) characteristics of the internal dialogues linked to the EDV/S such as their rigid and monolithic quality; 2) dysfunctional appraisals of the EDV/S; 3) styles of relating to the EDV/S; and 4) predisposing factors such as childhood trauma and, relatedly, negative interpersonal schemas. While support for some aspects of this model is reasonable (e.g. EDV/S-related appraisals and response styles), other components require further testing (e.g. the roles of childhood maltreatment and interpersonal schemas). Other biopsychosocial factors are also likely to contribute to EDV/S experiences. For example, starvation effects in anorexia nervosa will almost certainly exacerbate cognitive processes associated with distressing internal voices (e.g. repetitive, perseverative, and inflexible patterns of thinking), while the social isolation and withdrawal accompanying disordered eating is likely to increase preoccupation with the EDV/S.

Overview of the model

It is hypothesised that vulnerability to the EDV/S is conferred by several interrelated factors including attachment-related difficulties, early trauma, dissociation proneness, and the development of maladaptive interpersonal schemas, alongside temperamental factors (e.g. perfectionistic and obsessive personality traits). Experiences of severe childhood abuse and a greater tendency towards dissociation are likely to give rise to an EDV/S which is experienced as more differentiated and disconnected from the self. For some, the EDV/S will emerge alongside the development of ED symptoms; for others, pre-existing critical-internal dialogues become orientated around eating, shape, and weight in response to critical life events (e.g. body-related bullying).

During the initial stages of illness, ED symptoms are positively reinforced by affiliative EDV/S responses (e.g. praise, reassurance) and associated emotional reactions (e.g. pride, gratitude). This has the effect of ameliorating aspects of psychological distress (e.g. down-regulating distressing emotions, distracting from low self-esteem), leading to the formation of positive appraisals regarding the functionality of the EDV/S ('my ED voice

is helpful'). Attachment to the EDV/S and, relatedly, positive EDV/S appraisals are likely to emerge at this point and contribute to ambivalence about change.

Gradually, and particularly during the later stages of illness, ED symptoms are negatively reinforced by hostile EDV/S responses regarding the individual's shape, weight, and eating (e.g. criticism, humiliation). In order to avoid or ameliorate the negative emotions accompanying EDV/S attacks (e.g. shame, anxiety), individuals will tend to adopt submissive counter-responses (e.g. compliance, appeasement) resulting in increased ED symptomatology. This subordinate style of relating has the effect of strengthening dysfunctional appraisals about the dominance and omnipotence of the EDV/S, prompting further capitulation and compounding feelings of defeat and entrapment.

The biopsychosocial effects of disordered eating are likely to become pronounced at this point. Isolation, interpersonal tensions, the abandonment of personal interests, cognitive changes, and difficulties adhering to the demands of the EDV/S all contribute to deteriorations in mood, self-esteem, and self-efficacy. This results in increased preoccupation with the EDV/S and an inner world that is monopolised by repetitive, critical, and distressing forms of dialogue. Furthermore, the negative consequences of disordered eating may be interpreted as indicating a greater need to adhere to EDV/S, prompting more extreme eating behaviour.

Treatment implications

Current treatments for EDs have produced modest outcomes characterised by short-term symptomatic improvements, high rates of relapse, and significant levels of dropout. Psychological therapies for AN remain particularly dissatisfactory, with relatively low success rates reported across different forms of psychotherapy. In light of these findings, novel interventions for EDs are needed.

The EDV/S represents a fruitful direction for ED treatment. In particular, working with EDV/S could provide therapists with a means to engage ambivalent individuals, address treatment-resistant EDs, and stand shoulder-to-shoulder with clients against a feature of disordered eating (Pugh, 2016). Appreciation for the EDV/S might also promote understanding for the lived experience of EDs amongst mental health professionals, as well as establishing a common language for treatment (Graham et al., 2019). Unfortunately, limited guidance exists as to how internal voices might be addressed in EDs. Based on this review, and informed by the EDV/S model presented earlier, several targets for working with the EDV/S seem relevant. These might include:

- Building motivation to change one's relationship with the EDV/S.
- Formulating the EDV/S with reference to past and present experiences in social relationships.
- Minimising biological factors which are likely to exacerbate the EDV/S (e.g. starvation) through improved nutrition.
- Clarifying the functions of the EDV/S through direct 'voice dialogue' (Stone & Stone, 1989) and identifying alternative ways to fulfill these needs.
- Re-evaluating and testing out maladaptive appraisals of EDV/S appraisals (e.g. its perceived power and benevolence).
- Developing more adaptive ways of responding to the EDV/S such as compassionate assertiveness.
- Establishing and investing in healthy, external relationships.
- Addressing underlying factors such as childhood trauma and associated schemata.

Future directions for research

Additional studies are needed to elucidate the nature of the EDV/S, its interactions with disordered eating, and to test the components of the model presented here. It is hoped that continued research in this area will be buoyed by the development EDV/S specific measures (Gant, 2016), as well as adapted study designs and voice-related instruments

taken from other voice-experiencing groups (Pugh, 2016; Pugh & Waller, 2016). Important questions regarding the EDV/S which require exploration include the following:

■ How does the EDV/S differ from the voices found in other disorders (e.g. psychosis and emotionally unstable personality disorder), if at all?

■ Which longitudinal factors predispose individuals to experience an EDV/S?

■ Is the EDV/S related to underlying interpersonal schemas?

■ Are relationships with the EDV/S reflective of early attachments and external patterns of relating?

■ Which ways of responding to the EDV/S are most problematic and which are helpful (e.g. 'fighting back' versus 'stepping back'?)?

■ How does the EDV/S change during recovery from disordered eating?

■ Do EDV/S characteristics influence responses to therapy and does working with the EDV/S improve treatment outcomes?

Conclusions

Despite being a relatively common experience in EDs, studies exploring the EDV/S have only just begun to emerge. This research, albeit preliminary, suggests that the EDV/S may contribute to the maintenance of some EDs. Theories of voice experiencing developed in other clinical grounds provide some insight into how eating psychopathology and the EDV/S interact. Based on these insights, the current research, and clinical experience, a preliminary multifactorial model of the EDV/S has been proposed. It is hoped that this will provide a useful framework for both formulating and working with the EDV/S. Additional studies are now needed to clarify the nature of the EDV/S, test its clinical significance, and evaluate components of the presented model.

Matthew Pugh
Central and North West London NHS Foundation Trust

Correspondence
Matthew Pugh
Vincent Square Eating Disorders Service, Central and North West London NHS Foundation Trust, 1 Nightingale Place, London, SW10 9NG
Email: matthewpugh@nhs.net.uk

References

Arcelus, J., Haslam, M., Farrow, C. & Meyer, C. (2013). The role of interpersonal functioning in the maintenance of eating psychopathology: a systematic review and testable model. *Clinical Psychology Review, 33*, 156–167.

Aya, V., Ulusoy, K. & Cardi, V. (2019). A systematic review of the 'eating disorder voice' experience. *International Review of Psychiatry, 31*, 347–366.

Arntz, A. (2012). Imagery rescripting as a therapeutic technique: Review of clinical trials, basic studies, and research agenda. *Journal of Experimental Psychopathology, 2*, 189–208.

Beavan, V., Read, J. & Cartwright, C. (2011). The prevalence of voice-hearers in the general population: A literature review. *Journal of Mental Health, 20*, 281–292.

Bell, N.J. (2013). Dialogical processes of self-transformation: The sample case of eating disorder recovery. *Identity, 13*, 46–72.

Benjamin, L.S. (2003). *Interpersonal diagnosis and treatment of personality disorder.* New York: Guilford Press.

Birchwood, M. & Chadwick, P. (1997). The omnipotence of voices: Testing the validity of a cognitive model. *Psychological Medicine, 27*, 1345–1353.

Birtchnell, J. (1996). *How humans relate: A new interpersonal theory.* East Sussex: Psychology Press.

Broussard, B.B. (2005). Women's experiences of bulimia nervosa. *Journal of Advanced Nursing, 49*, 43–50.

Bruch, M. (1978). *The golden cage: The enigma of anorexia nervosa.* Cambridge, MA: Harvard University Press.

Carson, R.C. (1969). *Interaction concepts of personality.* Oxford: Aldine Publishing.

Chadwick, P. & Birchwood, M. (1994). The omnipotence of voices: A cognitive approach to auditory hallucinations. *The British Journal of Psychiatry, 164*, 190–201.

Dalle Grave, R., Rigamonti, R., Todisco, P. & Oliosi, E. (1996). Dissociation and traumatic experiences in eating disorders. *European Eating Disorders Review, 4*, 232–240.

Davis, W.N. (1991). Reflections on boundaries in the psychotherapeutic relationship. In C. Johnson (Ed.). *Psychodynamic treatment of anorexia nervosa and bulimia* (pp.68–85). New York: Guilford Press.

De Giacomi, E. (2019). *Eating disorders and living with the "Critical Voice"* (Unpublished Doctoral thesis). City, University of London.

De Jager, A., Rhodes, P., Beavan, V. et al. (2016). Investigating the lived experience of recovery in people who hear voices. *Qualitative Health Research, 26*, 1409–1423.

Dolhanty, J. & Greenberg, L.S. (2009). Emotion-focused therapy in a case of anorexia nervosa. *Clinical Psychology and Psychotherapy, 16*, 336–382.

Duncan, T.K., Sebar, B. & Lee, J. (2015). Reclamation of power and self: A meta-synthesis exploring the process of recovery from anorexia nervosa. *Advances in Eating Disorders: Theory, Research and Practice, 3*, 177–190.

Dym, B. (1985). Eating disorders and the family: A model for intervention. In S.W. Emmett (Ed.) *Theory and treatment of anorexia nervosa and bulimia* (pp.174–193). New York: Brunner/Mazel.

Eaton, C.M. (2019). Eating disorder recovery: A metaethnography. *Journal of the Psychiatric Nurses Association*, 1–16. https://doi.org/10.1177/1078390319849106.

Fairburn, C.G. (1997). Eating disorders. In D.M. Clark & C.G. Fairburn (Eds.) *Science and practice of cognitive behavioural therapy* (pp.209–241). Oxford: Oxford University Press.

Fairburn, C.G., Shafran, R. & Cooper, Z. (1999). A cognitive behavioural theory of anorexia nervosa. *Behaviour Research and Therapy, 37*, 1–13.

Favrod, J., Grasset, F., Spreng, S., Grossenbacher, B., & Hodé, Y. (2004). Benevolent voices are not so kind: the functional significance of auditory hallucinations. *Psychopathology, 37*, 304–308.

Gant, K. (2016). The development and assessment of a scale to measure the experience of the anorexic voice in anorexia nervosa (Unpublished Doctoral thesis). University of Manchester.

Gilbert, P. (1989). *Human nature and suffering*. East Sussex: Lawrence Erlbaum Associates.

Gilbert, P. (2010). *Compassion focused therapy: Distinctive features*. East Sussex: Routledge.

Graham, M., Tierney, S., Chisholm, A. & Fox, J. (2019). Perceptions of the 'anorexic voice': A qualitative study of healthcare professionals. *Clinical Psychology and Psychotherapy*. https://doi.org/10.1002/cpp.2393.

Hayward, M. (2003). Interpersonal relating and voice hearing: to what extent does relating to the voice reflect social relating? *Psychology and Psychotherapy: Theory, Research and Practice, 76*, 369–383.

Hayward, M., Berry, K. & Ashton, A. (2011). Applying interpersonal theories to the understanding of and therapy for auditory hallucinations: A review of the literature and directions for further research. *Clinical Psychology Review, 31*, 1313–1323.

Hayward, M., Jones, A.M., Bogen-Johnston, L., Thomas, N. & Strauss, C. (2017). Relating therapy for distressing auditory hallucinations: a pilot randomized controlled trial. *Schizophrenia Research, 183*, 137–142.

Hermans, H.J.M. (2004). The dialogical self: Between exchange and power. In H.J.M. Hermans & G. Dimaggio (Eds.) *Dialogical self in psychotherapy* (pp.13–28). Oxfordshire: Routledge.

Hormoz, E., Pugh, M. & Waller, G. (2019). Do eating disorder voice characteristics predict treatment outcomes in anorexia nervosa? A pilot study. *Cognitive Behaviour Therapy, 48*, 137–145.

Jenkins, J. & Ogden, J. (2012). Becoming 'whole' again: A qualitative study of women's views of recovering from anorexia nervosa. *European Eating Disorders Review, 20*, e23–e31.

Kent, A. & Waller, G. (2000). Childhood emotional abuse and eating psychopathology. *Clinical Psychology Review, 20*, 887–903.

Kramer, U. & Pascual-Leone, A. (2016). The role of maladaptive anger in self-criticism: A quasi-experimental study on emotional processes. *Counselling Psychology Quarterly, 29*, 311–333.

Lawrence, C., Jones, J. & Cooper, M. (2010). Hearing voices in a non-psychiatric population. *Behavioural and Cognitive Psychotherapy, 38*, 363–373.

Lock, J., Le Grange, D., Agras, W.S. & Dare C. (2002). *Treatment manual for anorexia nervosa: A family-based approach*. New York: Guilford.

Longden, E., Madill, A. & Waterman, M.G. (2012). Dissociation, trauma, and the role of lived experience: toward a new conceptualization of voice hearing. *Psychological Bulletin, 138*, 28–76.

Mantilla, E.F., Clinton, D. & Birgegård, A. (2018a). Insidious: The relationship patients have with their eating disorders and its impact on symptoms, duration of illness, and self-image. *Psychology and Psychotherapy: Theory, Research and Practice, 91*, 302–316.

Mantilla, E.F., Clinton, D. & Birgegård, A. (2018b). The unsafe haven: Eating disorders as attachment relationships. *Psychology and Psychotherapy: Theory, Research and Practice*. https://doi.org/10.1111/papt.12184.

Molendijk, M.L., Hoek, H.W., Brewerton, T.D. & Elzinga, B.M. (2017). Childhood maltreatment and eating disorder pathology: A systematic review and dose-response meta-analysis. *Psychological Medicine, 47*, 1402–1416.

Moskowitz, A. & Corstens, D. (2007). Auditory hallucinations: Psychotic symptom or dissociative experience? *Journal of Psychological Trauma, 6,* 35–63.

Moskowitz, A., Corstens, D. & Kent, J. (2012). What can auditory hallucinations tell us about the dissociative nature of personality? In V. Sinason (Ed.) *Trauma, dissociation and multiplicity* pp.22-34). East Sussex: Routledge.

Mountford, V. & Waller, G. (2006). Using imagery in cognitive-behavioral treatment for eating disorders: Tackling the restrictive mode. *International Journal of Eating Disorders, 39,* 533–543.

Noordenbos, G. (2017). *Critical thoughts and voices in eating disorder patients.* Paper presented at the Alpbach conference.

Noordenbos, G., Aliakbari, N. & Campbell, R. (2014). The relationship among critical inner voices, low self-esteem, and self-criticism in eating disorders. *Eating Disorders, 22,* 337–351.

Noordenbos, G. & van Geest, Z. (2017). Self-criticism and critical voices in eating disorder patients and healthy controls. *JSM Nutritional Disorders, 1,* 1003–1008.

Perona-Garcelán, S., Carrascoso-López, F., García-Montes, J.M. et al. (2012). Dissociative experiences as mediators between childhood trauma and auditory hallucinations. *Journal of Traumatic Stress, 25,* 323–329.

Pugh, M. (2016). The internal 'anorexic voice': A feature or fallacy of eating disorders? *Advances in Eating Disorders: Theory, Research and Practice, 4,* 75–83.

Pugh, M. (2019). *Cognitive behavioural chairwork: Distinctive features.* Oxon: Routledge.

Pugh, M. & Waller, G. (2016). The anorexic voice and severity of eating pathology in anorexia nervosa. *International Journal of Eating Disorders, 49,* 622–625.

Pugh, M. & Waller, G. (2017). Understanding the 'anorexic voice' in anorexia nervosa. *Clinical Psychology and Psychotherapy, 24,* 670–676.

Pugh, M., Waller, G. & Esposito, M. (2018). Childhood trauma, dissociation, and the internal eating disorder 'voice'. *Child Abuse and Neglect, 86,* 197–205.

Rojo-Moreno, L., Plumed, J.J., Fons, M.B. et al. (2011). Auditory hallucinations in anorexia nervosa. *European Eating Disorders Review, 19,* 494–500.

Sands, S. (1991). Bulimia, dissociation, and empathy: A self-psychological view. In C.L. Johnson (Ed.) *Psychodynamic treatment of anorexia nervosa and bulimia* (pp.34–50). New York: Guilford Press.

Salvini, A., Faccio, E., Mininni, G., Romaioli, D., Cipolletta, S. & Castelnuovo, G. (2012). Change in psychotherapy: A dialogical analysis single-case study of a patient with bulimia nervosa. *Frontiers in Psychology, 3,* 1–9.

Schwartz, R.C. (1987). Working with "internal and external" families in the treatment of bulimia. *Family Relations, 36,* 242–245.

Solmi, F., Melamed, D., Lewis, G. & Kirkbride, J.B. (2018). Longitudinal associations between psychotic experiences and disordered eating behaviours in adolescence: A UK population-based study. *The Lancet Child and Adolescent Health, 2,* 591–599.

Scott, N., Hanstock, T.L. & Thornton, C. (2014). Dysfunctional self-talk associated with eating disorder severity and symptomatology. *Journal of Eating Disorders, 2,* 1–11.

Stone, H. & Stone, S. (1989). Embracing our selves: The voice dialogue manual. Novato, CA: Nataraj Publishing.

Tierney, S. & Fox, J.R. (2010). Living with the anorexic voice: A thematic analysis. *Psychology and Psychotherapy: Theory, Research and Practice, 83,* 243–254.

Torem, M.S. (1987). Ego-state therapy for eating disorders. *American Journal of Clinical Hypnosis, 30,* 94–103.

Treasure, J. (1997). *Anorexia nervosa: A survival guide for families, friends, and sufferers.* New York: Psychology Press.

Watkins, J.G. (1978). *The therapeutic self: Developing resonance – key to effective relationships.* New York: Human Sciences Press.

White, M. & Epston, D. (1990). *Narrative means to therapeutic ends.* New York: W.W. Norton and Company.

Williams, K., King, J. & Fox, J.R. (2016). Sense of self and anorexia nervosa: A grounded theory. *Psychology and Psychotherapy: Theory, Research and Practice, 89,* 211–228.

Williams, S. & Reid, M. (2012). 'It's like there are two people in my head': A phenomenological exploration of anorexia nervosa and its relationship to the self. *Psychology and Health, 27,* 798–815.

Woolf, E. (2012). *An apple a day: A memoir of love and recovery from anorexia.* Berkeley, CA: Counterpoint Press.