Relational Patterns in Adolescents with and without Emotional Dysregulation and their Parents from a CAT Perspective

JESSICA RUSSELL-CARROLL AND MICHAEL GORDON

Dr. Jessica Russell-Carroll, Senior Clinical Psychologist, Trinity College Dublin and Health Service Executive (HSE); Assistant Professor Michael Gordon, Clinical Psychologist/ Psychoanalytic Psychotherapist and Lecturer in Psychology at Trinity College Dublin. Correspondence to: Dr. Jessica Russell-Carroll; Email jrussel@tcd.ie; Address: Ashgrove House, Kempton Estate, Navan Road, Dublin 7

Abstract: The radically social concept of self in the Semiotic Object Relations theory of Cognitive Analytic Theory (CAT) offers a clinically important understanding of the development and expression of relational patterns that characterise emotional dysregulation. The current study aims to examine shared relational patterns between adolescents with and without emotional dysregulation and their parents. It explores how such patterns influence responses to hypothetical critical, ambiguous and empathic Vignettes. Six emotionally dysregulated and six non-emotionally dysregulated adolescents and both parents (n = 36) completed personality integration, trauma and dissociation measures and were interviewed about their early parental relationship experiences before responding to Vignettes. Emotionally dysregulated families reported significantly less OK relational patterns with regard to parental relationships and significantly more abusing patterns in response to the critical Vignette compared to non-emotionally dysregulated families. The impact of problematic patterns in terms of how they may affect present relating are discussed in light of clinical and theoretical implications.

Keywords: Adolescents, Emotional Dysregulation, Relational Patterns, Cognitive Analytic Theory, Mixed Methods

ACCORDING to the Fifth Annual Child and Adolescent Mental Health Service Report (HSE, 2013), the majority of illness burden in childhood and more so in adolescence, is caused by mental disorders and the majority of adult mental health disorders have their onset in adolescence. The handful of studies that have been completed with adolescents however (Buist, Dekovic, Meeus, & van Aken, 2002; Lieberman, Doyle, & Markiewicz, 1999), have focused largely on single parent dyads and the transmission of specific behaviours and attachment styles while research exploring relational patterns with this population is absent in the literature.

Emotional dysregulation is postulated to be a central mechanism of borderline pathology and the disorder is characterised by marked problems regarding interpersonal relationships, self-image, affectivity, and marked impulsivity (Staebler, Gebhard, Barnett, & Renneberg, 2009). Benjamin (1992, 1996) argues that instability in interpersonal relationships and affect dysregulation in BPD are an extension of childhood environments in which the child was exposed to traumatic experiences, simultaneously idealised and devalued, and encouraged to be and rewarded for being dependent upon the family. As a result, emotional sensitivity becomes heightened to a pathological level resulting in misinterpretation of interpersonal stimuli (Burgess & Hartman, 1993) or may lead to tendencies to construe others' motives as malicious (Arntz & Veen, 2001). Thus, it appears that early experiences of co-regulation, or lack thereof, provide the foundation for continued regulation into adulthood (Hughes, Crowell, Ujeyji, & Coan, 2012). It seems therefore, that despite child and adolescent mental health having been extensively studied over the past two decades our understanding of the development and manifestation of child psychopathology within the family context is far from complete (Bertino, Connell & Lewis, 2012).

Despite the specific relevance of problematic patterns between parents and children with BPD, there is a clear dearth of research into the nature of such problematic patterns (Connell & Goodman, 2002). Research that does exist with regard to parental influence has tended to focus its lens primarily on mother-child dyads, and in the direction of behavioural characteristics and attachment styles (Kretchmar & Jacobvitz, 2002). However, as both parents clearly contribute to the genetic and social context in which children develop, ignoring the unique influence of each parent in the development of the clinical presentation of emotional dysregulation is a serious omission in empirical research (Capaldi, Pears, Kerr & Owen, 2008; Connell & Goodman, 2002).

Traditional cognitive approaches tend to lean towards a more one-dimensional view of the individual and appear to have paid very little attention to either the interpersonal style or environmental context in

which the person lives (Bamber, 2004). Modern psychoanalytic thinking on the development of the borderline self views borderline pathology as a problem of separation and individuation (Kernberg, 1967), and posits that BPD originates in the childhood failure to integrate conflicting images of self and other due to difficulties in key relationships. Attachment theory (Bowlby, 1969) posits that parenting interactions influence attachment patterns (which include reciprocal, social, emotional, cognitive, and behavioural characteristics of both the infant and caretaker) and regulatory capacities across the lifespan and thus shape the emerging adult personality (Diamond, 2006; Levy, 2005). However, apart from the caretaker-infant dyad, it must be borne in mind that there exists a whole social and cultural context that cannot be ignored in terms of etiology.

The role of social and cultural factors in individual development is emphasised in Cognitive Analytic Theory (CAT; Ryle & Kerr, 2002). The key element of this semiotic object relations model in CAT is concerned with the idea of internalisation. Central to the model is the reciprocal role procedure (RRP), or dialogical pattern which originates in the interactions between each individual child and his or her caretakers (Ryle & Marlowe, 1995). What is inside a person's mind therefore is a continuous internalised dialogue and not a static set of schemas (CBT) or internalised objects (Llewellyn, 2003). The Multiple Self States Model (MSSM) of BPD (Ryle, 1997b; Ryle & Kerr, 2002) posits that trauma and deprivation in the early years of life can lead to the internalisation of relational patterns which shape both self-management and relations with others. This is believed to account for many of the features of BPD such as deficient and disrupted self-reflection, dissociation and a fragmented sense of self. The model points to the ways in which humans actively construct unique cognitive representations of experience by identifying the specific interpersonal patterns linked to their own particular construal style developed through early caregiver-child interactions.

Bakhtin (1973) refers to the traces of early experiences as 'voices', reflecting the observation that they are not passive parcels of information but agentic parts of the person able to act and speak (Honos-Webb & Stiles, 1998; Osatuke, Gray, Glick, Stiles & Barkham, 2004; Stiles, 1997, 1999). From this perspective, a person's personality is thus understood as an organisation of voices representing significant people, events, and other constellations of experiences. Experiences are typically assimilated, unproblematically linked together, so that they are smoothly accessible and can serve as resources in daily living. Voices of problematic experiences however, may remain dissociated or at least partially dissociated from the rest of the person's experiences, being held apart by the negative affect engendered by encounters between them (Stiles, 2002; Stiles, Osatuke, Glick & Mackay, 2004). The positions a person takes are understood as the observable manifestations of the internalised voices of others. This suggests that what makes a voice problematic to the person does not reside within the voice itself but in how it positions the person with regard to self and others. The real or imagined presence, or anticipation of abusing, criticising, and or neglectful others becomes the background for many of the individual's activities. The voice of the other, as already indicated is for the most part, expected rather than heard (Lewis, 2002; Lewis & Todd, 2004) and it is these internal dialogues that affect both how others can be experienced and external actions.

The Current Study

The current study adopts a Cognitive Analytic Theory perspective. It examines and compares relational patterns in families of emotionally dysregulated (ED) and non-emotionally dysregulated (non-ED) adolescents. It is designed to add to the limited literature in this domain by describing how the experience of early relationships through interactions with significant close others leads to the internalisation of dialogical patterns that affect how individuals relate to themselves and others. It further considers how internalised patterns of relating might potentially influence responses to therapeutic dialogues involving critical, ambiguous and empathic therapist responses to a client. Data is approached from a mixed method perspective on the basis of its suitability as a methodology with regard to accessing an enriched understanding of familial relational patterns. The following hypotheses and research questions are proposed based on an extensive reading and analysis of both the theoretical and empirical literature in this area:

- Adolescents and their parents in the ED group, both separately and combined, will obtain statistically significant higher scores on measures of personality (dis)integration, trauma and dissociation compared to adolescents and parents in the non-ED group.

- ED families are expected statistically to share significantly higher frequencies of abusing and or/ idealising patterns, and significantly lower frequencies of OK patterns compared to the non-ED group on the basis of qualitative interviews.

- Exploration of the shared familial abusing, idealising and OK patterns elicited in response to a series of critical, ambiguous and

empathic hypothetical Vignettes will determine whether there are statistical significant differences within and between groups with regard to the frequencies of patterns elicited.

Method

Participants

Female adolescents and their parents who took part in this study were drawn from a purposive and convenient sample within the child and adolescent community and mental health services in the Dublin region over a ten-month period. Adolescents in the ED group were between 13 and 18 years old and attending regular outpatient therapy in secondary mental health services on account of emotion regulations difficulties. All adolescents referred for inclusion in the ED group had a primary diagnosis of ED according to DSM-V (2013). The control group adolescents were also between the ages of 13-18 years and engaged with primary mental health services. Data was collected from the twelve families (n=36) who agreed to participate and all subjects provided written consent.

Procedures

Families meeting inclusion criteria were informed of the research during a routine meeting with the Consultant Psychiatrist or Clinical Psychologist to both explain the nature of the research and to inform as well as assess their interest in taking part in the study. Informed consent was obtained from all interested participants. Given the sensitivity of the subject matter being discussed and the fact that all three family members attended at the same time, three interviewers were required. Interviews were conducted by the researcher and two experienced Psychologists. Following a qualitative interview, participants completed an identical battery of measures, which involved listening to a series of three randomly presented hypothetical therapeutic Vignettes. Following the presentation of each Vignette, participants were requested to select any descriptors that they felt were elicited and thus applicable. All procedures were approved by the local CAMHS, Health Service Executive, and University Ethics Committees.

Measures

Qualitative Interview: The Qualitative Interview on family relationships was based on both CAT (Ryle, 1997a; 1997b) and elements of attachment theory as outlined in the Adult Attachment Interview (AAI; George, Kaplan & Main, 1984, 1985, 1996).

Personality Integration: The Personality Structure Questionnaire (PSQ; Pollock, Broadbent, Clarke, Dorrian & Ryle, 2001) was administered as a measure of personality (dis)integration. The PSQ is based on the Multiple Self-States Model in CAT (Ryle, 1997a). Scores on the PSQ correlate significantly with measures of identity disturbance, dissociation, and multiplicity, and high scores indicating an awareness of instability are characteristic of borderline patients (Ryle, 2007). The PSQ consists of eight bipolar self-rated items with a range of possible responses from 1 to 5. Scores of 28+ are considered to be within the clinical range. Test-retest reliability for the PSQ has indicated stability across a six-week period with a correlation of .75). Convergent and discriminant validity for this instrument has been demonstrated through multiple regression analyses and its correlations with measures of dissociation, depression, interpersonal difficulties, general psychiatric symptomatology, sense of coherence, self-concept and mood variability among four non-clinical samples (total n=155) and four clinical samples (total n=117) (Bedford, Davis & Tibbles, 2009; Pollock et al, 2001).

Childhood Trauma: The Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) was used to assess the level of trauma in the sample given that items on the CTQ reflect common definitions of child abuse and neglect as found in the childhood trauma literature (Crouch & Milner, 1993; Finkelhor, 1994; Knutson, 1995; Malinosky-Rummell & Hansen, 1993). The CTQ is a 28-item self-report inventory that provides brief, reliable and valid screening histories of five clinical trauma scales pertaining to emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect on a 5-point Likert scale ranging from 'never true' to 'very often true' to enhance item sensitivity for low-intensity events. The CTQ has demonstrated good evidence of reliability and validity. The CTQ has been found to be a sensitive and valid screening questionnaire of childhood trauma with adolescents in psychiatric settings (Bernstein, Ahluvalia, Pogge, & Handelsman, 1997).

Dissociation: The Adolescent Dissociative Experiences Scale Second Edition (ADES-II; Armstrong, Putnam, Carlson, Liebro & Smith, 1997) was used to determine the levels of dissociation present in the personality of young people in the study. It is a brief 30-item questionnaire suitable for young people aged between 10 and 21 years. The respondent circles statements on an 11-point scale ranging from 0, labeled as 'never,' to 10, labeled as 'always.' The high split-half reliability and Cronbach's alpha provide evidence that the measure has good internal consistency. Furthermore, high test-retest reliability indicates that the A-DES-II is able

to measure consistently over time (Zoroglu, Sar, Tuzun & Savas, 2002) and has good construct validity. The Dissociative Experiences Scale Second Edition (DES-II; Carlson, Bernstein & Putnam, 1993) consists of 28 questions that help in determining the degree of dissociation present in the adult personality. This scale was administered to all parents taking part in the present study to assess levels of dissociation. Responses on the DES-II are recorded from 0 (never) to 100% (always) rated on what percentage of time the person experiences symptoms. Good reliability has been demonstrated. In 16 studies a mean Cronbach's alpha of .93 has been reported. A test-retest correlation of .93 over a period of 2 weeks was found in a sample of 78 patients at a dissociative disorders clinic (Dubester & Braun, 1995) and in 30 patients with a dissociative disorder across a 4-week period (Frischholz, Braun, Sachs & Hopkins, 1990).

Hypothetical Vignettes: The hypothetical *Vignettes* used in this study were all taken from the book *Cognitive Analytic Therapy and Borderline Personality Disorder* (Ryle, 1997a). The roles identified and discussed regarding these sample dialogues were considered to be critical, ambiguous or empathic following both an examination and rating by three Clinical Psychologists.

Reciprocal Roles/ Dialogical Patterns: The States Description Procedure (SDP; Bennett et al., 2005) was used to identify and record subjective dialogical patterns elicited in participants following the presentation of the hypothetical Vignettes detailing the dialogue of a therapeutic encounter. The SDP is a self-report procedure, non-psychometric test designed to identify and describe recognisable states and the dialogical/ relational patterns that occur within states and the switching between them. The ten states outlined in the SDP refer to an experiential state characterised by mood, behaviour, sense of self and others and is designed for the participant to identify and select those states which more-or-less resemble their own (Ryle, 2007). Consistent with Ryle's (2007) investigation of relational patterns in borderline states in which patterns were categorised into positive, negative, idealising and dissociative features, and for the purpose of the present study, relational patterns selected within each state were divided on the basis of their face value into categories indicating predominantly abusing, idealising and OK relational patterns in liaison with two CAT therapists and on the basis of the theory of CAT. The patterns that became evident were noted and coded as being within one of these three dominant categories.

Overview of Analyses

Preliminary analyses were conducted to test for distribution shape and to determine the most appropriate measure of central tendency. Non-parametric tests were considered the most appropriate in this instance given both the small sample size (i.e. Tomkins, 2006) and because medians are less sensitive to outliers in the data and thus a more accurate value of central tendency than means (Wilcox & Charlin, 1986). There were two parts to the overall process:

a) Qualitative interview data was analysed using Dialogical Sequence Analysis (DSA), (Leiman, 1997, 2004, 2011). DSA is a method of analysing utterance. An utterance is composed of 3 structural (the author, the addressee and the referential content) and 3 expressive (intonation, composition and stylistic devices) aspects. It was considered the most appropriate form of analysis for the qualitative data in this study since it was developed as a descriptive unit in CAT. Throughout transcript analysis, the dialogical patterns comprising the dominant relational repertoires of individuals within the families of each group began to emerge. As this study was only concerned with examining the dialogical/relational patterns (i.e. the patterns of reciprocation) and not the sequencing of those patterns, DSA was used for this purpose alone. The data of each participant was read and reread with the goal of identifying dialogical patterns and the process of identification was an iterative procedure.

b) Once participants' individual dialogical patterns were identified, it was decided that the shared patterns within families of both groups would be organised into salient themes on the basis of CAT theory and available literature (i.e. abusing, idealising, and OK; Ryle, 2007), that were then added together to obtain a total score for each group. Mann Whitney U tests were conducted to compare the prevalence of shared dialogical patterns under these themes between groups. Shared familial dialogical patterns elicited in response to a series of hypothetical Vignettes and identified using the SDP were also added together under each of the salient themes and the frequencies of these shared familial dialogical patterns elicited in response to Vignettes were then explored within and between groups using a series of Friedman and Mann Whitney U tests respectively. Analyses were conducted using SPSS version 21. The qualitative analysis was conducted so as to meet Miles and Huberman's (1994) five benchmarks of reliability and validity in qualitative research.

Results

A statistical significant difference was found in PSQ scores, (ED *Mdn*=36.0; Non-ED *Mdn*=16.5; *U*=.00, *p*=.004, *r*=.08 (very small effect) and in ADES-II scores, (ED *Mdn*=4.35, Non-ED *Mdn*=1.35; *U*=4.0, *p*=.025, *r*=0.64 (large effect) between adolescents indicating significantly higher levels of identity disturbance and dissociation in the ED adolescents. No statistically significant differences were found between adolescents on the CTQ in both groups or between parents in both groups on the PSQ, DES-II or CTQ. See Table 1 below.

Table 1. Medians and p values of PSQ, CTQ domains and ADES-II; DES-II in adolescents and parents between groups

Measure	Adolescents			Parents		
	ED (n=6)	Non-ED (n=6)		ED (n=6)	Non-ED (n=6)	
(Ranges)	*Mdn*	*Mdn*	*p*	*Mdn*	*Mdn*	*p*
PSQ (5-40)	36.0	16.5	.004**	23.75	17.5	.19
CTQ (5-25)						
Emotional Abuse	14.0	6.5	.076	9.0	8.25	872
Physical Abuse	5.0	5.0	.399	7.5	6.0	.293
Sexual Abuse	6.0	5.0	.25	5.25	5.0	.39
Emotional Neglect	11.0	7.5	.469	9.0	8.5	1.0
Physical Neglect	5.0	5.0	.702	7.0	6.5	.871
ADES-II; DES-II						
(0-10; 0-100)	4.35	1.35	.025*	6.75	7.25	.74

Note: Higher scores on the PSQ, ADES-II & DES-II, and CTQ are indicative of personality disturbance, dissociation and trauma severity; *P<.005; **P<.05

A series of Mann Whitney U tests were conducted to compare total PSQ and CTQ scores between the ED and non-ED family groups indicated a statistically significant difference in PSQ scores between groups, (ED *Mdn*=27.4; Non-ED *Mdn*=17.3, *U*=1.0, *p*=.006, *r*=.78 (large effect). No statistically significant differences were found on any of the CTQ trauma domains between family groups. See Table 2.

Table 2. Medians and p values of PSQ and CTQ domains between family groups

Measure	ED (n=6)	Non-ED (n=6)	
(Range)	*Mdn*	*Mdn*	*p*
PSQ (5-40)	27.4	17.3	006**
CTQ (5-25)			
Emotional Abuse	11.15	7.45	.078
Physical Abuse	7.6	5.65	.196
Sexual Abuse	6.5	5.0	.104
Emotional Neglect	7.9	8.6	.630
Physical Neglect	6.45	5.9	.373

Note: Higher scores on the personality integration measure and trauma domains are indicative of personality disturbance/ severity of trauma respectively; *P<.005.

Shared Abusing Dialogues in ED vs non-ED Group

Shared abusing dialogues in the form of abusive control, emotional disavowal, neglecting and distancing were present to varying degrees within all families in the ED group. Four families in the non-ED group shared abusing dialogues in the form of neglecting, abandoning, controlling, demanding, uncaring and distancing to Counter-positioned abused Positions. Below is an example of a shared emotionally disavowing dialogical pattern that emerged within the realm of abusing experiences in the ED family group as participants talked about their relationships with their parents. The abbreviations D, M and F are used throughout to identify daughter, mother and father respectively.

Referent – Mother

D4 She told me to stop telling lies and smacked me and told me I was really bold and should never say things like that about my uncle. . . that made me feel really shit. . . I couldn't say anything to her about it ever again. . . until I went to CAMHS because I was cutting myself.

M4 She never showed us love. . . I think she blocks out the lack of relationship.

Referent – Both parents

F4 I'd get in trouble and get a beating. . . oh yeah you'd get a wallop from the mother and then you'd get another one from my father when he'd come in and she'd tell him. . . I can't really remember much ya know – I don't know if I blocked it out or something.

Emotional disavowal as a form of abusive control is illustrated in D4's example above. Upon disclosing sexual abuse, she was Positioned as dismissed, disbelieved, abused and silenced to a Counter-positioned dismissing, disbelieving, abusing and silencing mother. This section of transcript also demonstrates how an internalised (m)other to self-abusing pattern is now enacted self-to-self through deliberate self-harm. When discussing her mother, M4 highlights her lack of emotional responsiveness; emotional expression was not permitted. Similarly, F4 was unable to express normal emotions to both his parents, as the consequence of such activity would result in trouble and abuse. This participant describes his abuse by both parents, but then there is silence (intervening voice) and he can't remember. This section of transcript highlights how a voice can intervene and cut off the memory (dissociation) of threatening and menacing experiences, as a way of coping.

Shared Idealising Patterns in the ED vs non-ED group

Shared idealising dialogues including Positions of ideally caring, admiring and smothering leading to Counter-Positioned blissfully cared for, admired and overwhelmed positions were present in three families in the ED group. This was compared with only one shared idealising pattern in the non-ED family group involving Positions of ideally caring to Counter-positioned blissfully cared for experiences. A shared idealising pattern in the ED family group is presented below.

Referent - Mother

D2 She never left my side. . . she does everything with me we don't like being without each other. I don't really have friends but it's ok because my mam is my best friend and we always say we don't need anyone else but each other. . . I feel she needs me too.

M2 So I'd look after her. . . I'd look after the house when my dad was out at work and look after things for her, look after her.

F2 She'd never have said no to you.

Here, both D2 and F2 exhibit internalised dialogical patterns from their mothers, which involve being Positioned as blissfully close to and ideally cared for. D2 describes a sense of vulnerability shared by herself and her mother as she identifies with dialogical patterns in which both of them are needy while being needed. In looking after her mother as a child (self to other), M2 exhibits an ideally caring parental child pattern; in doing everything for her daughter (self to other) she demonstrates the ideally caring to ideally cared for dialogical pattern. However, in providing ideal care to others she also engages in a neglecting to neglected self-to-self dialogical pattern.

Shared OK Patterns in the ED vs non-ED group

Dialogues constituting shared OK dialogical patterns were evident in four families in the ED group. These Positions typically included realistically caring and loving to Counter-Positioned realistic caring and feeling loved. It is of note however, that some of these individuals also Positioned themselves as both loved and confused to Counter-Positioned conditionally caring, distancing and/or neglecting caregivers, as is demonstrated below. Shared OK dialogues (example below) were present within all families in the non-ED family group and included Positions of realistically caring and respecting and loving to Counter-positioned realistically cared for, respected and loved positions.

Referent – Father

D4 He's kind. . . he gives me money when I need it.

M4 He'd give me hugs and things like that you know it was nice. . . really nice.

Both D4 and M4 gave evidence of cared for Positions in relation to Counter-positioned caring fathers.

M5 as highlighted below describes her alcoholic father as 'loving' while simultaneously Positioning herself as neglected, ignored and distanced by him (Counter-position).

M5 I'd have liked to be closer to him but I never felt I could be, he just wasn't made that way.

Prevalence of Shared Patterns Between Groups

A series of non-parametric Mann Whitney U tests were conducted. Analyses revealed a significant difference in shared OK relational patterns, (ED group *Mdn*=1; Non-ED Group *Mdn*=2) (U=4.0, p=0.02, r=.67 (large effect), but no statistical significant differences in abusing or idealising patterns between groups was found.

Patterns Elicited by Hypothetical Vignettes Within and Between Groups

A series of Friedman tests indicated that there was a significant difference in the frequency of OK patterns elicited within the ED group across the Vignettes. Comparing the ranks of OK patterns elicited across Vignettes in this group, the Critical Vignette elicited a significantly lower number of OK patterns than the ambiguous and empathic Vignettes. See Table 3.

Table 3. Patterns elicited in response to hypothetical Vignettes within groups

Group	Patterns	Vignette (*Mean Ranks*)			*p*
		Critical	Ambiguous	Empathic	
ED	Abusing	2.67	1.33	2.0	.069
	Idealising	1.83	2.25	1.92	.692
	OK	1.17	2.42	2.42	.038*
Non-ED	Abusing	2.58	1.33	2.08	.066
	Idealising	1.5	2.33	2.17	.229
	OK	1.42	2.33	2.25	.172

Note: *P<.05

A series of non-parametric Mann Whitney U tests revealed a statistically significant difference in the frequencies of abusing patterns, (ED *Mdn*=38.0, Non-ED *Mdn*=19.0; U=6.0, p=.05, r=.5 (large effect), but not in idealising or OK patterns, elicited in response to the critical Vignette between the ED and non-ED groups. No statistically significant differences were found between groups in frequencies of abusing, idealising, or OK patterns elicited in response to the ambiguous or empathic Vignettes.

Discussion

The significant finding with regard to identity (dis)integration and dissociation in the ED adolescents compared to non-ED adolescents is consistent with the literature on BPD with regard to personality (dis)integration and dissociation as patterns indicating identity disturbance including markedly persistent unstable self-image or sense of self, as well as dissociative symptoms that have been found to be core features of the disorder (DSM-V, 2013, Pollock et al., 2001; Ryle, 1997a; Ryle & Golynkina, 2000). No statistically significant differences between ED and non-ED adolescents were found in relation to abuse domains on the trauma measure. It must be borne in mind however, that non-ED adolescents were derived from a clinical population and were therefore likely to have varying degrees of adverse and traumatic experiences in their early histories, which may account for the non-significant finding across trauma domains between adolescents in both groups. This is supported by the qualitative data, which further indicated victim-abusing relational patterns in parental relationships in both family groups and has been highlighted in the literature (Ferenczi, 1932; Johnson et al, 2002; Macfie, Rivas, Engle, Hamilton & Rathjen, 2005; Ryle, 1997a; Zanarini et al, 1997). Dissociation as a coping strategy in the face of overwhelming adverse experiences is also a common finding in the literature (Van der Kolk, McFarlane & Weisaeth, 1996) and helps explain the significant difference between ED and non-ED adolescents' scores on the dissociation measure in this regard. The findings above and DSA are also consistent with the MSSM model of BPD in CAT (Ryle, 2007), which attributes a central role to adverse and traumatic relational experiences in inducing dissociation.

As parental psychosocial impairments have implications in terms of their ability to effectively attune and relate to the emotional needs of their children (Schore, 1994), this may also explain the significant differences between adolescents' scores in both groups on the measures of personality (dis)integration and dissociation. The ED family group scored significantly higher on the personality (dis)integration measure than the non-ED family group. This is consistent with the literature that has found high levels of psychopathology and intergenerational transmission of BPD and its coaggreagation with other disorders in parents of children with ED (Bradley et al., 2005; Serbin & Karp, 2004; White et al., 2003). The qualitative findings support the quantitative data gathered suggesting that a fragmented sense of self (disintegration) and disruptions in self-reflection (dissociation) could be set in motion through

more severe and or pervasive repeated and internalised negative early caregiver-child dialogical interactions. This was evident in the ED family group dialogues that appeared to be more negative, pervasive, ingrained and entrenched compared to the dialogues of the non-ED family group, consistent with CAT theory (Ryle & Kerr, 2002). ED families shared significantly less OK patterns compared to non-ED families. Although no significant difference was found between groups with regard to shared familial abusing and/ or idealising patterns, it must be noted as mentioned above, that the qualitative data revealed victim-abusing relational patterns in both family groups. Furthermore, not all abused children who internalise such relational patterns necessarily become emotionally dysregulated; it seems probable that both the varying nature of abusive experiences and the level of accompanying dissociation may play a role in determining the development of ED and account for differences in personality (dis)integration and dissociation scores between adolescents in both groups. This is supported by the qualitative and quantitative data. The significant finding with respect to the higher frequency of shared OK patterns in the non-ED family group suggests the presence of a greater range of more adaptive dialogical patterns that are capable of being utilised in a more flexible and integrated manner both intra and interpersonally. This is in keeping with the finding of a significantly lower level of personality (dis)integration in the non-ED family group. Qualitative analysis of the dialogical patterns in both family groups provided an important lens into the nature of the OK patterns reported and identified. For example, the lower level of OK dialogical patterns in the ED family group were often accompanied and characterised by confusion. According to the CAT model, this is considered to be the result of attempts to form adaptive responses to difficult early relational experiences (Ryle & Kerr, 2002)

Given that no statistical differences were found in any of the patterns elicited across the Vignettes within the non-ED group, it is possible that in keeping with CAT, this group had a greater range and flexibility of dialogical patterns to deploy to the presented Vignettes (Ryle & Kerr, 2002). Additionally, the ED group identified a significantly higher number of abusing patterns following the presentation of the critical Vignette only. This is congruent with literature that has demonstrated how individuals with emotional difficulties are likely to process information in a more negatively biased way (i.e. Meyer, Pilkonis & Beevers, 2004; Veen & Arntz, 2000) as well as having difficulties disengaging from threatening stimuli (Derryberry & Rothbart, 1997). Connecting the qualitative and quantitative results of this study provide support for CAT, which contends that internalised dialogues (in this case, abusive dialogues) affect external actions (the significant number of abusing patterns reported by the ED group in response to the critical Vignette). The significantly higher number of abusing patterns elicited to the critical Vignette and significantly lower number of OK patterns reported on the basis of qualitative interview on early relationships with parents in the ED family group suggests that this group possess a more restricted and less flexible range of dialogical patterns than the non-ED family group. This is consistent with the MSSM model and with the notion in CAT that the voice of the other is for the most part, expected rather than heard and that the real or imagined presence, or anticipation of abusing, neglectful or criticising others affect both how others can be experienced and external actions (Bakhtin, 1981; Holquist, 2004).

Limitations and Strengths

The small sample size meant that the power to explore the hypotheses accurately was significantly decreased and all results must therefore be interpreted with caution, at best providing a platform upon which further research with larger samples can be built. It is possible that some effects have been missed or inflated due to sample size and in all analyses the margin for error is greatly increased (Clark-Carter, 2010). Previous research with adolescents has highlighted the difficulties of recruitment and noted a significantly longer period for data collection would be needed to achieve a large sample size (Meyers, Webb, Frantz & Randall, 2003). The study was also exclusive to female adolescents and their parents and although females tend to be overrepresented among patients with ED in clinical settings, it remains unclear how the present findings relate to males with ED. The use of a mixed method approach in this study provides an alternate perspective on how human development occurs through the reciprocal exchanges between individual growth and social contexts (Bronfenbrenner & Morris, 1998; Thelan & Smith, 2006); and triangulation of the data increases its reliability and validity (Creswell, 2003). Investigator triangulation was also used in order to enhance the trustworthiness of the results. DSA, the qualitative analysis previously described in this study, has been used in psychotherapy process research and it has been noted that evidence of traumatic events are frequently apparent in the dialogical patterns emerging within the individual's core repertoire later on (Leiman, 1997; 1999). Moreover, the fact that the qualitative data is generally supportive of the quantitative findings in

this study indicates that they may be tentatively accepted. Given that these noteworthy trends were observed despite a small sample size suggests that they warrant future investigation. The study also conforms to the criteria of fruitfulness in terms of providing a new way of looking at a subject matter and increasing understanding of that subject matter (Madill & Barkham, 1997). Future research would benefit from following up larger samples, perhaps including male adolescents with ED, over a longer period examining the impact of adverse early relational experiences and the mediating factors that contribute to the potential for individuals to move in and out of a diagnosis (Glen & Klonsky, 2013).

Conclusion

This novel study moves away from the previously highlighted over-reliance on adult literature (Fruzetti, Shenk & Hoffman., 2005) and focus on studies in which parental influence in the development of ED is considered from a merely behavioural and/or attachment, or single parent perspective (Capaldi et al., 2008; Kretchmar & Jacobvitz, 2002). Using a CAT perspective, the study corroborates and extends the findings of previous research (Honos-Webb & Stiles, 1998; Osatuke et al, 2004, Stiles et al, 2006) in relation to how the nature of problematic parent-child patterns may be reactivated by circumstances that recall the conditions under which they were formed. The study provides a more holistic picture as to the importance of the parent-child relationship in the development and maintenance of ED thereby providing information as to where the therapeutic lens should be focused (relational dialogues) when working with this population and adds to the wider literature base on ED adolescents (White et al, 2003). □

ACKNOWLEDGEMENTS

No grant support was obtained for this research

REFERENCES

Armstrong, J. G. Putnam, F. W. Carlson, E. B. Liebro, D. Z. Smith, S. (1997). Development and validation of a measure of adolescent dissociation: The Adolescent Dissociative Experiences Scale. *The Journal of Nervous and Mental Disease, 185*(8), 491-497. doi:10.1097/00005053-199708000-00003.

Arntz, A. & Veen, G. (2001). Evaluations of others by borderline patients. *The Journal of Nervous and Mental Disease, 189,* 513-521. doi: 10.1097/00005053-200108000-00004.

Bakhtin, M.M. (1973). *Questions of Literature and Aesthetics*, (Russian) Progress Moscow.

Bakhtin, M. M. (1981). *The Dialogic Imagination: Four Essays.* In M. Holquist (Ed.), Dialogism, Bakhtin and his World (2004). University of Texas Press, Austin.

Bamber, M. (2004). An independent commentary on CAT for adult survivors of abuse. In P. Pollock (Eds.), *Cognitive Analytic Therapy For Adult Survivors of Childhood Abuse: Approaches to Treatment and Management*, pp. 257-270.

Bedford, A. Davis, F. & Tibbles, J. (2009). The Personality Structure Questionnaire (PSQ): A cross validation with a large clinical sample. *Clinical Psychology and Psychotherapy,* 77-81. doi:10.1002/cpp.603.

Benjamin, L. S. (1992). *An interpersonal view of Borderline Personality Disorder.* In Borderline Psychopathology, J. Clarkin, E. Marzialli, H. Monroe-Blum (Eds.), New York: Guilford.

Benjamin, L. S. (1996). *An interpersonal theory of personality disorders.* In J. F. Clarkin (Ed.), Major theories of personality disorder. N.Y: The Guilford Press, pp. 141-220.

Bennett, D. Pollock, P. H. & Ryle, A. (2005). The States Description Procedure: The Guided Self-Reflection in the Case Formulation of Patients with Borderline Personality Disorder. *Clinical Psychology and Psychotherapy, 12*, 50-57. doi: 10.1002/cpp.416.

Bernstein, D. P. Ahluvalia, T. Pogge, D. & Handelsman, L. (1997). Validity of the childhood trauma questionnaire in an adolescent psychiatric population. *Journal of American Child and Adolescent Psychiatry, 36*(3), 340-348. doi: 10.1097/00004583-199703000-00012.

Bernstein, D. P. & Fink, L. (1998). *Childhood Trauma Questionnaire: A Retrospective Self-Report.* The Psychological Corporation. Harcourt Brace & Company, San Antonio.

Bertino, D. Connell, G. & Lewis, A. J. (2012). The association between parental personality patterns and internalising and externalising

behaviour problems in children and adolescents. *Clinical Psychologist, 16*(3), 110-117. doi: 10.1111/j.1742-9552.2012.00042.x.

Buist, K. L. Dekovic, M. Meeus, W. & van Aken, M. A. G. (2002). Developmental patterns in adolescent attachment to mother, father and sibling. *Journal of Youth and Adolescence, 31*(3), 167-176. doi: 0047-2891/02/0600-0167/0.

Burgess, A. W. & Hartman, C. R. (1993). Children's drawings. *Child Abuse and Neglect, 17, 161*-68.

Bowlby, J. (1969). *Attachment and loss. Vol. 1. Attachment.* New York: Basic Books.

Bronfenbrenner, U. & Morris, P. A. (1998). In W. Damon & R. M. Lerner, (Eds.), *The ecology of developmental processes in Handbook of child psychology, Vol. 1: Theoretical models of human development*, 5th Edition (pp. 993–1023). New York: John Wiley and Sons, Inc.

Capaldi, D. M. Pears, K. C. Kerr, D. C. R. & Owen, L. D. (2008). Intergenerational and partner influences on fathers' negative discipline. *Journal of Abnormal Child Psychology, 36,* 347–358. doi:10.1007/s10802-007-9182-8.

http://www.hse.ie/eng/staff/Resources/hrppg/Children_First_2011_%E2%80%93_National_Guidance_for_the_Protection_and_Welfare_of_Children.pdf

Clark-Carter, D. (2010). *Quantitative Psychological Research.* East Sussex: Psychology Press.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.), New Jersey: Lawrence Erlbaum Associates.

Creswell, J. W. (2003). *Research designs: Qualitative, quantitative and mixed method approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Crouch, J. L. & Milner, J. S. (1993). Effects of child neglect on children. *Criminal Justice and Behaviour, 20*(1), 49-65. doi: 10.1177/0093854893020001005.

Derryberry, D. & Rothbart, M. K. (1997). Reactive and effortful processes in the organization of temperament. *Development and Psychopathology, 9,* 633-652. doi: 10.1017/S0954579497001375.

Diamond, N. (2006). Attachment, The Body and Trauma: *ACAT Reference Library.*

Ferenczi S. (1932). *The Clinical Diary of Sandor Ferenczi*. In J. Dupont, & M. Balint (Eds.), (1988). Jackson NZ, trans. Cambridge (MA): Harvard.

Finkelhor, D. (1994). *The international epidemiology of child sexual abuse. Child Abuse and Neglect, 18,* 409-417. doi:10.1016/j.chiabu.2008.07.007.

Frischholz, E. J., Braun, B. G., Sachs, R. G., &Hopkins, L. (1990). The Dissociative Experiences Scale: Further replication and validation. *Dissociation Progress in the Dissociative Disorders, 3,* 151-153.

Fruzzetti, A. E., Shenk, C., & Hoffman, P. D. (2005). Family interaction and the development of borderline personality disorder: A transactional model. *Development and Psychopathology, 17,* 1007-1030. doi:10.1017/S0954579405050479.

George, C., Kaplan, N., & Main, M. (1984). *Adult Attachment Interview Protocol.* Unpublished manuscript, University of California at Berkeley.

George, C., Kaplan, N., & Main, M. (1985). *Adult Attachment Interview Protocol (2nd Edition).* Unpublished manuscript, University of California at Berkeley.

George, C., Kaplan, N., & Main, M. (1996). *Adult Attachment Interview Protocol (3rd Edition).* Unpublished manuscript, University of California at Berkeley.

Health Service Executive (2013). *Fifth annual child and adolescent mental health service report 2012-2013.* http://www.hse.ie/eng/services/publications/Mentalhealth/camhsrpts/CAMHS12,13.pdf

Holquist, M. (2004). *Dialogism: Bakhtin and His World*. London Routledge.

Honos-Webb, L., & Stiles, W. B. (1998). Reformulation of assimilation analysis in terms of voices. *Psychotherapy, 35,* 23-33. doi: 10.1037/h0087682.

Hughes, A. E., Crowell, S. E., Uyeji, L., & Coan, J. A. (2012). A developmental neuroscience of borderline pathology: Emotion dysregulation and social baseline theory. *Journal of Abnormal Psychology, 40,* 21-23. doi: 10.1007/s10802-011-9555-x.

Johnson, J. G., Cohen, P., Gould, M. S., Kasen, S., Brown, J., & Brook, J. S. (2002). Childhood adversities, interpersonal difficulties, and risk for suicide attempts during late adolescence and early adulthood. *Archives of General Psychiatry, 59,* 741-749. doi:10.1001/archpsyc.59.8.741.

Kernberg, O. (1967). Borderline personality organization. *Journal of the American Psychoanalytic Association, 15*, 641-685.

Knutson, J. F. (1995). Psychological characteristics of maltreated children: Putative risk factors and consequences. *Annual Review of Psychology, 46,* 401-431. doi:10.1146/annurev.ps.46.020195.002153.

Kretchmar, M. D. & Jacobvitz, D. (2002). Mother-child observations across three generations: Attachment, boundary patterns, and the intergenerational transmission of caregiving. *Family Process, 41,* 351-374. doi: 10.1111/j.1545-5300.2002.41306.x.

Leiman, M. (1997). Procedures as dialogical sequences: A revised version of the fundamental concept in CAT. *British Journal of Medical Psychology, 70,* 193-207. doi: 10.1111/j.2044-8341.1997.tb01899.x.

Leiman, M. (1999). *Signs of the warded-off.* Paper presented at the Annual Meeting of the Society for Psychotherapy Research, Braga, Portugal (June, 1999).

Leiman, M. (2004). Dialogical Sequence Analysis. In J. M. Hermans, & G. Dimaggio (Eds.), *The dialogical self in psychotherapy.* Hove, East Sussex: Brunner-Routledge.

Leiman, M. (2011). Dialogical sequence analysis in studying psychotherapeutic discourse. (In Press: *International Journal of Dialogical Science*).

Lieberman, M. Doyle, A.B. Markiewicz, D. (1999). Attachment to mother and father: Links to peer relations in childhood. *Child Development, 70*, 202-213. doi: 10.1111/1467-8624.00015.

Lewis, M. D. (2002). The dialogical brain: Contributions of emotional neurobiology to understanding the dialogical self. *Theory & Psychology, 12*(2), 175-190. doi: 10.1177/0959354302012002628.

Lewis, M. D. & Todd, R. (2004). Toward a neuropsychological model of internal dialogue: Implications for theory and clinical practice. In H. J. M. Hermans, & G. Dimaggio (Eds.), The Dialogical Self in Psychotherapy (Ch.6). New York: Brunner & Routledge.

Levy, K. N. (2005). The implications of attachment theory and research for understanding borderline personality disorder. *Development and Psychopathology, 17,* 959-986. doi: 10.1017/S0954579405050455.

Macfie, J. Rivas, E. Engle, J. Hamilton, S. & Rathjen, R. (2005). *Effect of maternal borderline personality disorder on preschoolers' narrative representations.* Poster presented at the Biennial Meeting of the Society for Research in Child Development, Atlanta, GA.

Madill, A. & Barkham, M. (1997). Discourse analysis of a theme in one successful case of brief psychodynamic-interpersonal psychotherapy. *Journal of Counselling Psychology, 44*(2), 232-244. 10.1037/0022-0167.44.2.232.

Malinosky-Rummell, R. & Hansen, D. J. (1993). Long-term consequences of childhood physical abuse. *Psychological Bulletin, 114*(1), 68-79. doi: 10.1037/0033-2909.114.1.68.

Meyers, K. Webb. A. Frantz, J. Randall, M. (2003). What does it take to retain substance-abusing adolescents in research protocols? Delineation of effort required, strategies undertaken, costs incurred, and 6-month-post-treatment differences by retention difficulty. *Drug and Alcohol Dependence, 69*(1), 23-85. doi: 10.1016/S0376-8716(02)00252-1.

Meyer, B. R. Pilkonis, P. A. & Beevers, C. G. (2004). What's in a (neutral) face? Personality disorders, attachment styles, and the appraisal of ambiguous social cues. *Journal of Personality Disorders 18* (4), 320–336. doi: 10.1521/pedi.18.4.320.40344.

Osatuke, K. Gray, M. A. Glick, M. J. Stiles, W. B. & Barkham, M. (2004). Hearing voices: Methodological issues in measuring internal multiplicity. In H. H. Hermans & G. Dimaggio (Eds.), *The dialogical self in psychotherapy* (pp. 237-254). London: Brunner-Routledge.

Pollock, P. H. Broadbent, M. Clark, S. Dorian, A. & Ryle, A. (2001). The Personality Structure Questionnaire (PSQ): A measure of the multiple self states model of identity disturbance in cognitive analytic therapy. *Clinical Psychology and Psychotherapy, 8,* 59-72. doi: 10.1002/cpp.250.

Ryle, A. & Marlowe, M. J. (1995). Cognitive analytic therapy of borderline personality disorder: Theory and practice and the clinical and research uses of the self states sequential diagram. *International Journal of Short-term Psychotherapy, 10,* 21-34.

Ryle, A. (1997a). *Cognitive analytic therapy and borderline personality disorder: The model and the method.* Chichester: Wiley & Sons Ltd.

Ryle, A. (1997b). The structure and development of borderline personality disorder: A proposed model. *British Journal of Psychiatry, 170,* 82-87. doi: 10.1192/bjp.170.1.82.

Ryle, A. & Golynkina, K. (2000). Effectiveness of time-limited cognitive analytic therapy of borderline personality disorder: Factors associated with outcome. *British Journal of Medical Psychology, 73,* 197-210. doi: 10.1348/000711200160426.

Ryle, A. (2001). *CAT's Dialogical Perspective on the Self.* ACAT Conference Keynote Address. ACAT Reference Library.

Ryle, A., & Kerr, I. (2002). *Introducing Cognitive Analytic Therapy: Principles and Practice.* Chichester: Wiley.

Ryle, A. (2007). *A Seminar with Tony Ryle. In Dialogue with Ian B Kerr and CAT Scotland.* CD on ACAT website.

Schore, A. N. (1994). *Affect Regulation and the Origin of the Self: The Neurobiology of Emotional Development*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Serbin, L. A. & Karp, J. (2004). The intergenerational transfer of psychosocial risk: Mediators of vulnerability and resilience. Annual Review of Psychology, 55, 333-363. doi: 10.1146/annurev.psych.54.101601.145228.

Staebler, K. Gebhard, R. Barnett, W. & Renneberg, B. (2009). Emotional responses in borderline personality disorder and depression: Assessment during an acute crisis and 8 months later. *Journal of Behaviour, Therapy and Experimental Psychiatry, 40*(1), 85-97. doi: 10.1016/j.jbtep.2008.04.003.

Stiles, W. B. (1997). Signs and voices: Joining a conversation in progress. British *Journal of Medical Psychology, 70,* 169-176. doi: 10.1111/j.2044-8341.1997.tb01896.x.

Stiles, W. B. (1999). Signs and voices in psychotherapy. *Psychotherapy Research, 9,* 1-21. doi: 10.1093/ptr/9.1.1.

Stiles, W. B. (2002). Assimilation of problematic experiences. In J. C. Norcross (Ed.), *Psychotherapy relationships that work: Therapeutic contributions and responsiveness to patients* (pp. 357-365). New York: Oxford University Press.

Stiles, W. B. Osatuke, M. Glick, M. J. & Mackay, H. C. (2004). *Encounters between internal voices generate emotion: An elaboration of the assimilation model.* In H. J. M. Hermans, & G. Dimaggio (Eds.), The Dialogical Self in Psychotherapy (Ch.6). New York: Brunner & Routledge.

Thelan, E. & Smith, L.B. (2006). Dynamic Systems Theories. In W. Damon (Editor-in-chief) & R. M. Lerner (Ed.), *Handbook of child psychology, Volume 1, Theoretical models of human development, 6th Edition* (pp. 258-312). New York: Wiley.

Tomkins, C. C. (2006). An introduction to non-parametric statistics for health scientists. *University of Alberta Health Sciences Journal, 3*(1), 20-26.

Van der Kolk, B. A. McFarlane, A. C. & Weisaeth, L. (Eds.), (1996). Traumatic stress: The effects of overwhelming experience on mind, body and sobriety. New York, NY: The Guildford Press.

Wilcox, R. R. & Charlin, V. L. (1986). Comparing medians: A Monte Carlo study. *Journal of Educational Statistics, 11*, 263–274. doi: 10.2307/1164699.

Yoshikawa, H. Kalil, A. Weisner, T. S. & Way, N. (2008). Mixing qualitative and quantitative research in developmental science: Uses and methodological choices. *Developmental Psychology, 44*(2), 344-354. doi: 10.1037/0012-1649.44.2.344.

Zanarini, M. C. Williams, A. A. Lewis, R. E. Reich, R. B. Vera, S. C. Marino, M. F. et al. (1997). Reported pathological childhood experiences associated with the development of borderline personality disorder. *American Journal of Psychiatry, 154,* 1101-1106.

Zimmerman, D. W. (1994). A note on the influence of outliers on parametric and non-parametric tests. *The Journal of General Psychology, 121*(4), 391-401. doi: 10.1080/00221309.1994.9921213.

Zoroglu, S. Sar, V. Tuzun, U. Tutkun, H. & Savas, H. (2002). Reliability and validity of the Turkish version of the Adolescent Dissociative Experiences Scale. *Psychiatry and Clinical Neurosciences, 56*, 551–556. doi: 10.1046/j.1440-1819.2002.01053.x.

Service User Experiences of CAT Diagrams: an Interpretative Phenomenological Analysis

KIMBERLEY TAPLIN[1]
BETH GREENHILL[2]
CLAIRE SEDDON[3]
and JAMES MCGUIRE[4]

Abstract

Background: Formulation is an essential tool in psychological therapy. However, there is a paucity of research evidencing the efficacy, credibility and experience of formulation. Cognitive Analytic Therapy (CAT) uses a specific form of diagrammatic formulation.

Aims: This study aims to explore service-user experiences of the SDR.

Method: Seven participants who had an SDR and who completed therapy within three to twelve months were interviewed using a semi-structured interview/topic guide. Data were analysed using Interpretative Phenomenological Analysis (IPA).

Results: Four superordinate themes emerged from the data: *'Chaos to clarity (a process of meaning making)'; 'The change process'; 'Relational dynamics'; and 'Focus on treatment options'*.

Conclusions: Results suggest the SDR facilitates understanding and reduces blame. Participants advocated for CAT as an early intervention. The visual and physical aspects of the SDR were important in developing ownership of the formulation. Collaboration was crucial to the development of the therapeutic relationship and promoted a sense of empowerment, hope and meaningful person-centred change. For participants in this study CAT was regarded as a preferable treatment compared to CBT and medical frameworks of understanding human distress. Study strengths and limitations, clinical implications and future research ideas are discussed.

Declaration of interest: None.

Keywords: Cognitive Analytical Therapy, Sequential Diagrammatic Reformulation (SDR), service-user, formulation.

[1] Mersey Care NHS Trust
[2] University of Liverpool
[3] Mersey Care NHS Trust
4 University of Liverpool
*Requests for reprints should be addressed to Dr Kimberley Taplin, Early Intervention Service, Baird House, Liverpool Innovation Park, Edge Lane, Liverpool, L7 9NJ (e-mail: kimberley.taplin@merseycare.nhs.uk)