Inpatient Adolescents with BPD Features: Identity Diffusion and Narrative Incoherence

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Abstract

Borderline personality disorder (BPD) is a severe disorder with poor prognosis. Therefore, a growing number of researchers emphasize the need to evaluate correlates of BPD present during adolescence that can be identified and targeted to prevent exacerbation over time. A core feature of BPD is a disturbed sense of self; however, such disturbances can manifest themselves in different ways in adolescence. In this study, we examined whether such disturbances would appear through self-reported identity disturbance and more indirectly through incoherent oral narratives, rated based on the content derived from the Child Attachment Interview (CAI). Thus, higher levels of identity diffusion and lower levels of narrative coherence of past events were expected to associate with BPD features in 70 inpatient adolescents. Findings confirmed hypotheses; however, when considering covariance between narrative coherence and identity diffusion, only identity diffusion remained significant. Findings are discussed in terms of how both constructs might be underlying mechanisms of a disturbed sense of self in BPD and how they speak to future treatment and a more dimensional conceptualization of personality disorders.

Keywords: Borderline personality disorder, adolescence, identity diffusion, narrative coherence
Introduction

Borderline personality disorder (BPD) is a devastating disorder characterized by a range of symptoms such as unstable relationships, emotion dysregulation, and impulsivity (APA, 2013). The disorder is associated with high societal costs (Soetman, Hakkert-van-Roilen, Verheul, & Busschbach, 2008), low quality of life (Soetman, Verheul, & Busschbach, 2008), and struggle to retain psychosocial functioning after therapy (Zanarini, Frankenburg, Reich, & Fitzmaurice, 2010). With compelling research linking BPD to poor prognosis many researchers stress the importance of diagnosing BPD as early as adolescence since early intervention may prevent exacerbation over time (Chanen, Sharp, Hoffman, 2017). In fact, research shows that similar to adults with BPD, adolescents with BPD struggle with a high rate of comorbid Axis-I disorders, crime, suicide, and drug dependence (Cohen, 2008) as well as poor social functioning (Chanen, Jovev, Jackson, 2007), emphasizing the need for an early focus.

One of the essential characteristics of BPD is a disturbed sense of self (Jørgensen, 2009). In particular, as articulated in the DSM-5, patients with BPD suffer from diffused identity manifested by sudden and dramatic changes in self-concept, goals, personal values, career plans, and religious beliefs (APA, 2013), which is supported by empirical studies in adults (e.g., Jørgensen, 2009; Wilkinson-Ryan, & Westen, 2009). In addition, Westen and colleagues (2011) also showed identity disturbance in adolescence with BPD traits (i.e., lack of normative commitment, role absorption, lack of consistency). Since identity diffusion in adolescents is among the most important symptoms leading to an accurate diagnosis of BPD later on (e.g., Becker, Grilo, Edell, McGlashan, 2002) and since identity formation is one of the crucial developmental tasks of adolescence (Erikson, 1959), focusing on early signs of identity diffusion in adolescence with respect to BPD seems crucial.
Another important mechanism for maintaining a coherent sense of self that has received substantially less attention with respect to BPD is the ability to mentally travel backwards in time to remember one’s personal past (e.g., Atance & Metzoff, 2005; Tulving, 2002). Thus, autobiographical memory broadly defined as “memory for information relating to the self” (Brewer, 1986, p. 46) encompasses specific memories - that is, memories of “circumscribed, one-moment-in-time event[s]…including what was seen, heard, thought, and felt” (Pillemer, 1998, p. 3) e.g., “my 10th birthday.” Thus, travelling back in time and remembering past events have long been emphasized as important for individuals to strengthen a sense of self (e.g., Neisser, 1988; Bluck & Liao, 2013) because one’s past is linked to the current self (Conway, Singer, & Tagini, 2004). Some memories are even self-defining (Singer & Salovey, 1993) and retrieved to illustrate and emphasize how a person understands who he or she is. A fundamental characteristic of specific memories is the overall architecture; however, only few studies have examined the structural components and coherence of memories in patients with BPD (Jørgensen et al., 2012; Rasmussen et al., 2017), finding that BPD patients construct less coherent and more confusing narratives about events compared to healthy controls and patients with OCD and eating disorder. Strikingly, no study has yet focused on adolescents even though the ability to create memories of specific events is accomplished by late childhood (e.g., Nelson & Fivush, 2004; Reese, 2014). As more abstract thinking comes on line during adolescence (Piaget, 1930, 1952), identifying abnormalities in narrative coherence present during adolescence could be helpful to identify early self-disturbances associated with BPD.

The Current Study

The aim of the current study was to examine the relation between different manifestations of a disturbed sense of self (operationalized through both identity diffusion and narrative coherence) and borderline features in inpatient adolescents. Identity was assessed using a self-rating inventory
(AIDA; Goth et al., 2012) assessing levels of identity diffusion. To examine adolescents’ narrative coherence on specific events, we implemented an existing, well-validated coding system for narrative coherence (Baerger & McAdams, 1999), to code personal narratives derived from the Child Attachment Interview (CAI; Target, Fonagy, Schmueli-Goetz, Datta, Schneider, 2007). In this coding system, narrative coherence is defined as a multidimensional structural characteristic of story telling, which captures the overall structure and orientation as well as more emotional and reflective aspects such as relating episodes to the self, which is more nuanced than previous coding systems (e.g., Peterson & McCabe’s, 1983) used to assess only the structure of narratives of specific events in adults with BPD (Jørgensen et al., 2012; Rasmussen et al., 2017). The coding system of Baerger and McAdams (1999) has previously been applied to life story transcripts in adults with BPD (Adler et al., 2012). Since the CAI guides adolescent subjects to recall and elaborate on specific past events, it is well suited to the evaluation of narrative coherence in autobiographical memory. Thus, by coding narrative coherence based on the attachment interviews we achieve a sense of how adolescents structure and reflect on personal past events and how they link such episodes to their current self.

Based on above adult (e.g., Jørgensen, 2009; Wilkinson-Ryan, & Westen, 2009) and adolescent studies (Becker et al., 2002; Westen et al., 2011) we expected that identity diffusion would relate to features of BPD. In addition, since Westen and colleagues (2011) emphasize an incoherent sense of self in adolescents with BPD features and because two studies show reduced coherent narratives of events in adults with BPD (Jørgensen et al., 2012; Rasmussen et al., 2012), we expected a negative relation between narrative coherence and BPD features. In addition, since identity diffusion and incoherent narratives evidence distinct expressions of a disturbed self, we examined whether they independently predicted features of BPD when controlling for each other. Finally, since both constructs relate to the self and previous studies have found small-to-medium
effect sizes in the relations between identity and other constructs associated with narrative coherence (causal connections: Lind & Thomsen, 2017; meaning-making: McLean & Pratt, 2006) we expected to find significant, albeit small-to-medium effect sizes between identity and narrative coherence.

Methods

Participants and Procedure

The current study was approved by the appropriate human subject review committee. Seventy adolescents from a private tertiary care inpatient treatment facility participated in the study (80% females ranging from 12 to 17 years, $M = 15.37$, $SD = 1.37$) within their first two weeks of hospitalization (length of stay ranged from 4-68 days, $M = 36.76$; $SD = 12.07$). These adolescents constitute a subgroup from a larger study on assessment and treatment outcomes (see Sharp et al., 2009 for a description). The particular battery of measures in the larger study changed slightly over time, resulting in subgroups of adolescents with certain measures that the rest of the sample did not have. The 70 inpatients in the present study were selected based on their completion of the AIDA measure and had their Child Attachment Interview (CAI; Target et al., 2007) transcripts coded for narrative coherence (see below for a description). The same sample was also used in another investigation of narrative coherence (Lind et al., 2018) and the description of narrative coherence is thus somewhat similar to the descriptions in this study.

Prior to participation, the adolescents and their parents provided informed consent. Inclusion criterion were sufficient proficiency in English to consent to research and complete the material. Exclusion criteria were a diagnosis of schizophrenia or other psychotic disorder, an autism spectrum disorder, or IQ less than 70. The sample consisted of 80% White, 7% Hispanic, 5% Asian, 2% African American, and 7% mixed or other. Based on DSM-IV criteria, at admission 66.7% met
criteria for a depressive disorder, 6.3% for a bipolar disorder, 11.1% for eating disorders, 36.5% for an externalizing disorder, 28.6% for a substance use disorder, and 65.1% for anxiety disorders.

Measures

**Borderline Personality Disorder Features Scale for Children (BPFSC)** was used to examine BPD features (Crick, Murray-Close, & Woods, 2005). BPFSC is a 24-item self-report measure based on the BPD scale of the Personality Assessment Inventory (Morey, 2007). The scale was constructed for use in children and consists of items on four subscales reflective of core BPD features (i.e., affect instability, identity problems, negative relationships, self-harm) and rated on a 5-point Likert scale ranging from “not true at all” to “always true”. In the current sample, Cronbach’s alpha was .90, indicating good internal consistency.

**Narrative coherence** was rated using a coding system (Baerger & McAdams, 1999) that has been used in simplified versions in clinical adult (e.g., Adler et al., 2012; Adler et al., 2008) and in the current adolescence sample (Lind et al., 2018). The coding system assesses four dimensions of narrative coherence: 1) **Orientation**: the degree to which the narrative provides the reader with sufficient background information to understand the story, 2) **Structure**: the extent to which the narrative flows logically from one point to the next, 3) **Affect**: the extent to which the narrative uses emotion language to make an evaluative point, 4) **Integration**: the extent to which the narrator relates the episode being described to whom he or she is as a person or why this story has been told. Each of these four dimensions was rated using a 0 to 3 scale (higher scores indicate higher degrees of coherence). To assess for interrater reliability, three reliable coders independently coded 15% of the CAI interviews. The CAI contains three sections: a section in which the child describes three characteristics of: 1) himself/herself, 2) his/her mother, and 3) his/her father. Thus, narrative coherence was coded separately for the child, the mother, and the father with respect to **Structure** (child ICC = 0.78, mother ICC = 0.72, father ICC = 0.88), **Orientation**, (child ICC = 0.78, mother
ICC = 0.82, father ICC = 0.92), Affect (child, ICC = 0.88, mother ICC = 0.86, father ICC = 0.87), and integration (child ICC = 0.81, mother ICC = 0.76, father ICC = 0.84). Based on the acceptable interrater reliability, the remaining interviews were distributed randomly between the three raters to code independently. Narrative coherence across the three sections was highly consistent justifying the consolidation of scores across self, mother, and father for each dimension (structure, orientation, affect, and integration) by calculating the mean score of the three coherence sections. Similar to previous studies (e.g., Adler et al., 2012; Adler, Wagner, McAdams, 2007), the four dimensions of coherence were merged and a mean score of total coherence was created and employed in the analysis.

Identity. The Assessment of Identity Development in Adolescence (AIDA; Goth et al., 2012) is a self-report instrument developed to assess pathology-related identity development in adolescence ages 12-18 years old. The AIDA utilizes a conceptualization of identity derived from both psychodynamic and social-cognitive theories with an emphasis on comprehensive and methodologically optimized assessment. The questionnaire consists of 58 items, which are rated on a scale from 0 “no – I strongly disagree” to 4 “yes – I strongly agree” and are summed for a total score, with higher scores representing greater identity diffusion. The AIDA has demonstrated excellent psychometric properties in samples of students, inpatients, and outpatients (Goth et al., 2012). In the current sample, Cronbach’s alpha was .95, indicating excellent internal consistency.

Results

In the subsequent analysis, we tested for potential age and gender differences with respect to the main study variables, but no significant differences were found (these results are available by request from the corresponding author).

First, we ran a series of correlations to examine the associations between identity diffusion, narrative coherence, and features of BPD. Increased levels of identity diffusion correlated
significantly with increased levels of BPD features ($r = .72, p < .001$). Lower levels of narrative coherence were also significantly related to increased features of BPD ($r = -.27, p < .05$). A significant association was not found between increased levels of identity diffusion and lower levels of narrative coherence ($r = -.17, p > .05$).

A multiple regression analysis was conducted to examine whether identity diffusion and narrative coherence associated with borderline features when controlling for each other. Identity and narrative coherence were entered as independent variables and borderline features was entered as outcome variable. Results indicated that only identity diffusion ($\beta = .68, p < .001$) and not narrative coherence ($\beta = -.15, p = .082$) remained significantly associated with borderline features ($F(2, 68) = 39.50, p < .001, \text{Adj. } R^2 = .53$).

The measure of borderline features used encompasses four subscales (affect instability, identity problems, negative relationships, and self-harm) and to test whether the “identity problems” subscale alone caused the significant associations with identity diffusion and narrative coherence, we re-ran the above correlations and regressions using a composite score that excluded the identity problems subscale. The association between identity diffusion and BPD symptoms decreased but remained high, ($r = .66, p < .001$) and the association between narrative coherence and BPD symptoms showed a minor increase ($r = .28, p < .05$). Interestingly, although identity diffusion remained the dominating predictor of BPD symptoms ($\beta = .63, p < .001$), narrative coherence became marginally significant ($\beta = -.18, p = .054$), $F(2, 68) = 28.89, p < .001, \text{Adj. } R^2 = .45$. In other words, the relations between the variables could not be explained alone by the “identity problems subscale” of the BPFSC.

**Discussion**

Research emphasizes differences between adults and adolescents in narrative coherence and identity diffusion (e.g., Erikson, 1959; Habermas & Bluck, 2000). When studying disorders or
identity and self-like personality pathology, it is therefore important to include adolescent studies to determine whether differences exist beyond those associated with the developmental immaturities in self-characteristics of adolescence. The results of the current study suggest that both identity diffusion and memories low on coherence were related to BPD features, which supports the notion that adolescents high on borderline features struggle with many aspects of a distorted sense of self. Further, it seems that identity diffusion may be the most impactful factor on the severity of BPD when taking into account its correlation with narrative coherence. The relation between identity and narrative coherence indicate that they are quite distinct constructs, which is somewhat different than other studies showing small-to-medium associations between identity and narrative characteristics contributing to coherence (e.g., Lind & Thomsen, 2017; McLean & Pratt, 2006). However, previous studies evaluated turning points or the entire life story - foci that might be more closely related to identity than the specific attachment-focused events brought to mind by the CAI.

Researchers have argued that identity diffusion underlie other BPD symptoms such as chronic feelings of emptiness, frantic efforts to avoid abandoned, impulsivity, and self-harm (e.g., Jørgensen, 2009; Westen er al., 2011); however, it is possible that distorted narratives could potentially contribute to similar symptoms. That is, vivid, coherent, and meaningfully linked memories provide a sense of meaning and purpose for the individual (e.g., McAdams, 2001; Conway et al., 2004) and disturbed narratives may lead to feelings of emptiness and insecurity, causing dependency and fear of being abandoned by others. In addition, since past events are used to guide and direct our current self and future behavior (Bluck, 2003), adolescents with less coherent, fragmented narratives may use past experiences less often to learn from and guide their behavior forward, which could result in impulsivity and potentially self-harm.

The current study demonstrated that identity diffusion had the strongest relation to BPD, which was unique above the variance accounted for by narrative coherence. However, the findings
indicate that both constructs target independent domains of self-disturbance that should potentially be taken into account when diagnosing and treating BPD during adolescence. Integrating theories on healthy personality to understand disordered personality (e.g., Adler et al., 2012) is congruent with the movement towards conceptualizing personality disorder as dimensional rather than categorical. In terms of treatment, narratives provide a unique window into how a person constructs and makes sense of the past. An elevated ability to construct coherent life events could potentially be translated into therapeutic techniques incorporating training in tailoring structured and meaningful narratives. Since the narrative perspective of self has largely been overlooked with respect to BPD, this aspect may deserve more attention, especially starting in adolescence when disturbances in narrative coherence show systematic relations with pathology (Lind et al., 2018). From a research perspective, studies relying heavily on the ability to provide accurate and comprehensive stories about past events might be difficult for adolescents with BPD or high levels of BPD features, who may be more prone to narrative incoherence. This may underscore the significance of collecting additional information from other sources (e.g., parents, friends, teachers) and of supporting the structure of the adolescents’ memories using photos, etc. Research is needed that follows the adolescents’ narrative abilities before, during, and after treatment to determine to what extent and when these capacities improve. Furthermore, since adolescents’ and adults’ psychosocial functioning is often determined based on personal narratives (e.g. assessment tools to measure attachment style, mentalization and personality organization), and retrospective memories are often relied on to complete various questionnaire measures, this may suggest the need to develop or more frequently use alternative measurements relying less heavily on narratives, such as observational or experimental measures, where possible.

Study Limitations
Most importantly, the current study was correlational and we cannot therefore make inferences regarding any cause-effect relations between identity diffusion, narrative coherence, and BPD features. These dynamics should be examined more closely in future studies and with the inclusion of other types of measurement (e.g., interview-method instead of self-report). Finally, since the study overrepresented females and White/Caucasian youth, a future study may consider including a higher number of males and more ethnically diverse youth to determine whether similar properties of self-disturbance characterize BPD across genders and ethnicities.

Conclusion

The present study suggests that multiple manifestations of a disturbed sense of self (i.e., identity diffusion and lower narrative coherence) are related to BPD; however, when controlling for the effects of each other, only identity diffusion was related to BPD features in adolescents. Regardless, we contend that a full understanding of the phenomenology of self-disturbance in BPD may still benefit from taking both identity diffusion and narrative coherence into account and deserves more detailed, future examination.
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