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Psychosocial Functioning in Adolescents with and without Borderline Personality

Disorder

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Abstract

Objective: Little is known about the psychosocial functioning of adolescents with borderline personality disorder (BPD). The main objective of this paper is to compare the psychosocial functioning of a group of adolescents with BPD to a group of psychiatrically healthy adolescents.

Methods: The present cross-sectional study included 104 adolescent inpatients with BPD, compared with 60 age-matched psychiatrically healthy comparison subjects. All participants were rigorously diagnosed using three semi-structured interviews: the KID-SCID, the DIB-R and the CI-BPD. All subjects were also interviewed using the adolescent version of the Background Information Schedule the (AV-BIS) to assess multiple facets of psychosocial functioning.

Results: Adolescents with BPD rated their relationships with their parents as significantly less positive, were more likely to date, but spent more time alone than their healthy counterparts. In addition, adolescents with BPD reported significantly more problems at work and school (i.e., lower frequency of having a good work or school history, higher frequency of being suspended or expelled from school) and significantly lower rates of participation in extra-curricular activities than their healthy counterparts. Conclusions: Taken together, the results of this study suggest that adolescents with BPD are more impaired in both the social and vocational areas of functioning than psychiatrically healthy comparison subjects. They might also suggest that an overlooked area of strength concern their relationships with peers.

Key words: Borderline Personality Disorder; Adolescence; Psychosocial Functioning

Psychosocial functioning in patients with borderline personality disorder (BPD) is heterogeneous (Zanarini, Frankenburg, Reich, & Fitzmaurice, 2010). Good psychosocial functioning encompasses both interpersonal and intimate functioning on the one hand and vocational and academic functioning on the other. For adolescents with BPD, the question of psychosocial functioning is particularly important because functioning may directly influence and be influenced by the severity of developing psychopathology (Wright, Zalewski, Hallquist, Hipwell, & Stepp, 2016).

Cross-sectional studies on psychosocial functioning in adult BPD generally highlight impairment associated with this disorder (Skodol, Gunderson, McGlashan, Dyck, Stout, Bender et al., 2002), as do short-term follow-up studies (see for reviews Gunderson, Stout, McGlashan, Shea, Morey, Grilo et al., 2011 and Zanarini et al., 2010). For the Collaborative Longitudinal Personality Disorders Study (CLPS), Skodol, Pagano, Bender, Shea, Gunderson, Yen, and colleagues (2005) found overall no change in psychosocial functioning in BPD over the course of two years of follow-up. However, patients with symptomatic improvement over two years also presented with improvements in all domains of psychosocial functioning (Skodol et al., 2005). At the 10 year follow-up, Gunderson and colleagues (2011) found significant improvement in psychosocial adjustment and overall functioning, albeit modest effects for the latter. However, patients with BPD still presented with more psychosocial problems than patients with major depression or other personality disorders.

In the McLean Study of Adult Development (MSAD), Zanarini, Frankenburg, Hennen, Reich and Silk (2005) showed that psychosocial functioning in adult BPD improved over six years of prospective follow-up but was still more impaired than in

subjects with other personality disorders. This study also showed strong links over time between the status of symptomatic remission and improvement in psychosocial functioning. Of those who remitted during this time, 40% achieved a satisfactory vocational record, whereas of those who did not remit during this time, only 13% achieved the same and 75% were on disability. At the 10 year follow-up, Zanarini and colleagues (2010) found 60% of patients initially diagnosed with BPD had satisfactory psychosocial functioning. It is worth noting that out of these, only 2.4% failed to achieve satisfactory psychosocial functioning because of the absence of an emotionally sustaining relationship, whereas 93.9% failed to achieve satisfactory psychosocial functioning because of a poor vocational or academic performance.

So far, only few studies have examined psychosocial functioning in adolescent BPD (Sharp & Romero, 2007; Winsper, Marwaha, Lereya, Thompson, Eyden & Singh, 2015; Wright, Zalewski, Hallquist, Hipwell & Stepp, 2016). Functional impairment was associated with features of adolescent BPD in a cross-sectional study (Chanen, Jovev & Jackson, 2007), in particular less self-care, and more problematic relationships with peers and parents. A cohort study showed predictive links between levels of borderline symptoms at age 14 and higher use of psychiatric services, poor academic and vocational functioning, and less intimate involvements 20 years later (Winograd, Cohen & Chen, 2008). Zelkowitz, Paris, Guzder, Feldman, Roy and Rosval (2007) showed in a five year follow-up study that adolescents with BPD were more likely to have changed school due to behavior problems, to live in a foster home and to present problems with peers than general psychiatric patients (adolescents) without BPD. The presence of a BPD diagnosis in a sample of patients at 16 years of age was related with problems in

romantic relationships during their transition to adulthood (Chen, Cohen, Johnson, Kasen, Sneed, & Crawford, 2004). However, Biskin, Paris, Renaud, Raz and Zelkowitz (2011) did not find a significant difference in terms of psychosocial adjustment between adolescents with BPD and adolescents with disruptive behavior disorder. Wright and colleagues (2016) examined the co-occurrence of symptoms related to adolescent BPD and several aspects of psychosocial functioning, including academic performance, social skills, and sexual behavior. They found moderate to strong links between level of BPD symptoms and all aspects of psychosocial functioning examined.

So far, no study has examined psychosocial functioning in adolescent BPD in comparison with a group of psychiatrically healthy adolescents, using rigorous diagnostic methodology. This is important, because it might help gain insight into possible psychosocial maintenance factors of mental disorders in adolescence in general, and help identify possible limitations and resources associated with the disorder. In the present study, we pursue this aim by using substance size samples, rigorous diagnostic methods, and a semi-structured interview concerning psychosocial functioning designed specifically for this age group.

Method

The methodology of this study has been presented before in detail (Zanarini et al., in press). Briefly, adolescents (aged 13-17) with presumptive BPD were recruited from four units at McLean Hospital and one unit at Mount Sinai Medical Center between the dates of August 2007 and September 2012. During the same timeframe, same-aged adolescents without a history of any psychiatric disorder were recruited using online advertisements. Parents provided consent and adolescents provided assent.

Adolescent participants, who were of average or better intelligence and did not meet criteria for a psychotic disorder or a physical disorder that could cause serious psychiatric symptoms, were then administered three diagnostic assessments. These interviews were: 1) the Structured Clinical Interview for DSM-IV Childhood Diagnoses (KID-SCID; Matzner, Silva, Silvan, Chowdhury, & Nastari, 1997; Smith, Huber & Hall), 2) the Revised Diagnostic Interview for Borderlines (DIB-R; Zanarini, Gunderson, Frankenburg, & Chauncey, 1989), and 3) the Childhood Interview for DSM-IV Borderline Personality Disorder (CI-BPD; Sharp, Ha, Michonski, Venta, & Carbone, 2012).

Both groups of adolescents were interviewed with the adolescent version of the Background Information Schedule (BIS-AV; Zanarini, 2006; Adult version: Zanarini, Frankenburg, Hennen & Silk, 2004). This interview assesses psychosocial functioning in the past two years. In particular, it assesses both interpersonal functioning (i.e., good relationship with father, mother, friends, dating and time spent alone) and vocational functioning (i.e., good work/school history, attending regular classes, repeated grade, suspended or dropped out of school, and frequent participation in community organizations). Good work/school history was derived from on an interviewer-rated item that was based on participant responses to other questions regarding problems and accomplishments in work and school. Participants were rated as having a "good" work or school history if, based on their responses to these items, they were rated as having a steady, progressive, or very progressive work/school history. Participants were rated as "poor" if their responses indicated a very troubled or somewhat troubled work/school history.

Analyses

Between-group differences in demographic variables were assessed using Student's t-test for continuous variables and Pearson chi-square for binary variables. Analyses on variables related to psychosocial functioning were conducted using logistic regression. However, firth penalized logit methods (Firth, 1993) were used in analyses of three variables due to low base rates in one variable (dropped out of school) and highly discrepant rates in two other instances: good work and/or school history and attending regular classes. All analyses were conducted controlling for age.

Results

One hundred and four subjects were adolescents between the ages of 13 and 17 who met both DIB-R and DSM-IV criteria for BPD. Sixty were age matched psychiatrically healthy comparison subjects.

Demographic characteristics of the two study groups have been described before (Zanarini et al., in press). Briefly, adolescents with BPD were significantly more likely to be female than psychiatrically healthy adolescents. Adolescents with BPD were also significantly older than psychiatrically healthy adolescents (by about a year). There was no difference in terms of race or socioeconomic status. In terms of GAF scores, adolescents with BPD had significantly lower scores than psychiatrically healthy adolescents (by almost 40 points).

Adolescents with BPD were significantly less likely to report a good relationship with both their father and their mother than psychiatrically healthy adolescents. In addition, Table 1 shows that adolescents with BPD tended to have a bit more problems with friends, compared to healthy controls, however, no significant difference was found. Adolescents with BPD were significantly more likely to date than healthy adolescents,

but the former were also more likely than the latter to spend half to all of their free time alone. In the vocational realm, adolescents with BPD were significantly less likely to have a good work or school history than psychiatrically healthy adolescents. In addition, adolescents with BPD were more likely to have been suspended or expelled from school than psychiatrically healthy adolescents. Finally, adolescents with BPD were significantly less likely to participate frequently in school or community organizations than psychiatrically healthy adolescents.

Discussion

The present study has four main findings. First, both interpersonal/intimate functioning and academic/vocational functioning were negatively affected in adolescent patients with BPD. This is consistent with other studies on adult BPD (Skodol et al., 2002), as well as adolescent BPD (Chanen et al., 2007; Wright et al., 2016).

Second, whereas the relationship with both parents was negatively affected by adolescent BPD, the quality of the relationship with friends was not. Both groups had similarly high rates of good relationships with friends: adolescent patients with BPD declare that they maintain somewhat satisfying relationships with their peers. This result partially contradicts earlier studies on various difficulties in peer relationship in adolescents with BPD (Chanen et al., 2007; Vaillancourt, Brittain, McDougall, Krygsman, Boylan, Duku & Hymel, 2014; Wlodarczyk & Lawn, 2016; Wolke, Schreier, Zanarini, & Winsper, 2012).

There might be different explanations for this observation. Comparing with earlier studies (e.g. Chanen et al., 2007), which found all psychosocial indicators being less favorable in adolescents with BPD in comparison to a healthy control group, it might be

that the high co-morbidity may have driven the poor psychosocial functioning.

Alternatively, different methodologies might account for the differences in results: we used semi-structured interviews and other studies relied more on self-reported reported questionnaires. It might also be that our inpatients with BPD actually misconstrue interactions and their effects and tended to perceive the relationships with peers better than they actually were. Such difficulties of misconstruing social interaction might be due to hypermentalizing, known as a specific feature of adolescent BPD (Sharp, Ha, Carbone, Kim, Perry, Williams & Fonagy, 2013; Sharp, Pane, Ha, Venta, Patel, Sturek & Fonagy, 2011).

Whereas the observation that adolescent BPD presents with problems in interpersonal functioning is hardly a surprising result, our differentiated methodology enabled to specify where the main interpersonal problems are.

Third, we found that adolescents with BPD both dated more often and spent more of their free time alone, when compared to their healthy counterparts. While this seemed contradictory, it may indicate that dating in this population may involve a wide range of activities, including online and text dating (Starr, Davila, Stroud, Clara Li, Yoneda, Hershenberg, & Ramsay Miller, 2012). Adolescent dating may also involve brief experiences, and adolescents with BPD might use brief dating in order to compensate for their experience of loneliness when spending time alone. Of note, increased dating may imply increased risk of violence, as reported in the context of minority youth (Reuter, Sharp, & Temple, 2015). Based on these observations, we may speculate that the adolescent BPD patients' difficulty in being alone, yet spending most of their free time alone, may be compensated by more dating activities. It may be that

compensatory dating lessen their feelings of loneliness. This explanation is consistent with the assumption that a central underlying feature of BPD is interpersonal hypersensitivity (Gunderson & Lyons-Ruth, 2008) – a fragile interpersonal stance which makes these individuals particularly sensitive to rejection and compensatory behaviors.

Fourth and perhaps most importantly, this study found that adolescent patients with BPD present with major problems in their academic functioning. The patients with BPD had a significantly poorer school history and were significantly more likely to have been suspended or expelled from school. In addition, they participated significantly less often than healthy comparison subjects in school and community activities.

These results are largely consistent with other studies on the link between developing psychopathology and academic functioning in adolescent BPD (e.g., Chanen et al., 2007; Croccetti, Klimstra, Hale, Koot, & Meeus, 2013; Eccles, Barber, Stone & Hunt, 2003; Winograd et al., 2008; Wright et al., 2016). It may be that the adolescents' difficulties interfere with healthy day-to-day functioning which is revealed in these outcomes. Or it may be that poorer performance at school may contribute to lower self-esteem in the adolescents with BPD and may therefore contribute to psychological fragility and identity problems.

The clinical implications of the findings of the present study are twofold. Firstly, clinicians of adolescents with BPD may closely assess the quality of their relationships with family and peers and be mindful that the relation with the latter need to be a central focus of their formulation, both in terms of possible resources and potential harm. Also, clinicians may strive to strengthen relationships that work, in order to increase overall psychosocial functioning and health. Secondly, clinicians should pay close attention to

the problems in the domain of school performance. These difficulties may add to the number of problems presented by this population, for example the well-studied higher school mobility associated with higher levels of depression in adolescents (Herbers, Reynolds, & Chen, 2013; Winsper et al., 2015). Hence, clinicians may consider recommending therapeutic interventions focused on study-related strategies fostering specific integration into the classroom – homework coaching, specific skills training, and work with parents. More specific interventions such as these may help to prevent further deterioration and problems in psychosocial functioning in this crucial phase of development.

The present study has several limitations. All recruited adolescent patients with BPD were inpatients: the results may not generalize to outpatients. The fact that there was a between-group age difference might show a problem with the matching procedure. We used patient self-report which might suffer from some reporting biases. Finally, and maybe most importantly, we only compared adolescent patients with BPD with healthy controls. This design did not allow to firmly attribute the differences found to the specific BPD-diagnosis, but only to the adolescents' general mental health status. In this sense, the present study is an important piece towards a more fine-grained and methodologically sound understanding of psychosocial functioning in adolescent BPD and should be complemented by group comparisons with other adolescent patients (i.e., inpatients or outpatients, for different diagnoses).

Taken together, these results suggest that adolescents with BPD have trouble in familial relationships and functioning at school. They also confirm the affiliative nature

of these boys and girls as most had good relationships with friends and the majority had started to date.

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Table 1 Psychosocial Functioning of Adolescents with BPD and Psychiatrically Healthy Adolescents							
	%	N	%	N	Odds-Ratio	95% CI	P-value
Interpersonal Functioning							
Good relationship with Father	43.3	45	70.0	42	0.34	0.76, 1.24	0.003*
Good relationship with Mother	62.5	65	95.0	57	0.08	0.02, 0.29	<0.001*
Good relationship with Friends	84.6	88	95.0	57	2.72	0.73, 10.11	0.136
Dating	56.7	59	26.7	16	3.53	1.71, 7.30	0.001*
Half or All of Free Time Alone	36.5	38	8.3	5	5.63	2.02, 15.67	0.001*
Vocational Functioning							
Good Work and/or School History	66.4	69	100	60	0.01	0.00, 0.21	0.002*
Regular classes	76.9	80	100	60	1.78	0.01, 317.52	0.827
Repeated a Grade	22.1	23	5.0	3	4.88	1.35, 17.60	0.015
Suspended or Expelled from School	36.5	38	8.3	5	8.12	2.80, 23.50	<0.001*
Dropped Out of School	8.7	9	0	0	7.18	0.40, 129.31	0.181
Frequent Participation in School or Community Organizations	31.7	33	56.7	34	0.32	0.16, 0.65	0.002*

Note: Logistic regression, adjusted for age; Firth Method for 3 variables (Good Work and/or School History, Regular Classes, Dropped Out of School); *Bonferroni Correction for multiple comparison p<0.004