HHS Public Access

Author manuscript

Personal Disord. Author manuscript; available in PMC 2023 July 02.

Published in final edited form as:

Personal Disord. 2022 September ; 13(5): 474–481. doi:10.1037/per0000547.

The Incremental Utility of Maladaptive Self and Identity Functioning Over General Functioning for Borderline Personality Disorder Features in Adolescents

Carla Sharp[1], **Sophie Kerr**[1], **Rasa Barkauskienė**[2]

[1]Department of Psychology, University of Houston

[2]Institute of Psychology, Vilnius University

Abstract

A debate has emerged regarding the nature of *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* Level of Personality Functioning (LPF; Criterion A) of the alternative model of personality disorder. The aim of the current study was to evaluate the distinctiveness of an aspect of LPF, namely, maladaptive self and identity function, from general psychosocial disability by evaluating its incremental utility over that of general psychosocial disability for personality disorder in adolescents. To this end, a measure of maladaptive self and identity function was administered alongside measures of general psychiatric impairment, peer problems, life satisfaction, and academic functioning in 2 samples of adolescents: a community-dwelling sample (n = 379; M_{age} = 14.70, SD = 1.74) and a sample of clinically-referred adolescents (n = 74; M_{age} = 15.05, SD = 1.47). Using hierarchical regression analyses to test our hypotheses, and consistent with the results from studies in adults, our findings showed that maladaptive self and identity function incremented general psychosocial disability in the association with borderline features with similar magnitude for clinical and community samples when considered together and separately. Results are discussed in the context of current views on the nature and meaning of LPF.

Keywords

alternative model for personality disorder (AMPD); level of personality functioning (LPF); Criterion A; borderline personality disorder; adolescence

The need for a general, shared diagnostic criterion for personality disorder (PD) that cuts across different manifestations of personality pathology has long been acknowledged (Widiger & Trull, 2007). This acknowledgment was primarily motivated by data demonstrating high comorbidity among PDs (Clark, 2005), calling into question the validity of discretely defined PD categories as espoused in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (*DSM–IV*; American Psychiatric Association, 1994) and Section II of the *DSM–5* (American Psychiatric Association,' 2013). Indeed, research has shown that comorbidity rates among PDs are higher than that of traditional Axis I disorders,

Correspondence concerning this article should be addressed to Rasa Barkauskienė, Institute of Psychology, Vilnius University, Universiteto st 9/1, 01513 Vilnius, Lithuania. rasa.Barkauskienė@fsf.vu.lt.

The data set analyzed during the current study is available from the corresponding author on reasonable request.

with typical comorbidity rates of 50% or more (Clark, 2007). Moreover, research has shown that a number of PDs share similar configurations across traits (most often involving high neuroticism, low conscientiousness, and low agreeableness; Morey et al., 2011), leading to the conclusion that PDs have more in common with each other than what separates them (Bender et al., 2011). Accordingly, the *DSM* and the International Classification of Diseases have always acknowledged commonalities through its general PD criteria, which include pervasiveness and inflexibility, clinically significant distress or impairment, and relative temporal stability. These features had been, however, deemed nonspecific and inadequate to theoretically justify the construct of personality pathology (Bender et al., 2011). In addition, research had failed to support previously held notions about the high stability and pervasiveness of personality pathology (Zanarini et al., 2012); therefore, course and onset itself could no longer be used to capture the defining general features of personality pathology (Bender et al., 2011).

To better represent the common features shared by all personality pathology, the *DSM–5* workgroup introduced a general severity criterion named the Level of Personality Functioning (LPF) captured in Criterion A of the alternative model for personality disorder (AMPD) in Section III of the *DSM–5* (Bender & Skodol, 2007; Bender et al., 2011). LPF was defined as a unidimensional severity criterion, conceptually independent from specific personality types or traits and representing a more general adaptive failure or delayed development of an intrapsychic system needed to fulfill adult life tasks (Livesley, 2003; Morey et al., 2011). This intrapsychic system was characterized in terms of disturbances in self (identity and self-direction) and interpersonal (empathy and intimacy) function, operationalized in the Level of Personality Function Scale (LPFS; American Psychiatric Association, 2013).

In developing the LPF construct, the *DSM–5* workgroup relied heavily on psychodynamic definitions of personality function and reviewed several validated psychodynamic measures to arrive at a definition of LPF that draws on the intrinsic aspects of personality functioning (Sharp & Wall, 2021). A cursory glance at, for instance, the description of the most severe manifestation for disturbances in identity function of the LPFS in the *DSM–5* shows that PD is associated with problems in experiencing oneself as unique with a sense of agency or autonomy; boundaries are confused or lacking; a person may experience a distorted self-image easily threatened by interactions and emotions that are incongruent with internal experience; a person may struggle to differentiate thoughts from actions and may struggle with setting goals; an individual may also struggle with reflecting on own experience and may not be guided by a set of stable internal standards; personal motivations are unrecognized or experienced as external to the self; an individual may also struggle with understanding others' experiences and motivations, and social interactions are confusing and disorienting; and interactions are nonsatisfying and relationships are not reciprocal, but focused on fulfilment of basic needs or escape. Taken together, according to the LPFS, when someone has a PD, something has gone awry in a person's mental representation of herself in relation to others—which is consistent with psychodynamic formulations of how personality works (Sharp & Wall, 2021). Although this conceptualization of personality function was not intended to be exclusively psychodynamic—indeed, the AMPD was intended to be theoretically agnostic—the focus on the subjective experience of the self

constitutes a hallmark feature of psychodynamic thinking—perhaps more so than other theoretical orientations to personality function.

Despite the notion that the LPF concept captures an individual's dynamic and subjective experience (mental representation) of herself and her relationships, alternative views on conceptualizing the general severity criterion common to all PDs emerged, some reflecting long-standing perspectives predating the AMPD (Sharp & Wall, 2021). A common alternative view suggests that the general severity criterion should be indexed by general psychosocial disability (Widiger & Trull, 2007). As defined by the World Health Organization, psychosocial functioning refers to a person's ability to carry out roles and perform activities in daily life, including in social or interpersonal, school or work, recreational or leisure, and basic functions (i.e., self-care, communication, mobility; Skodol, 2018; World Health Organization, 2001). In the *DSM–IV*, this was indexed on Axis V in the form of the Global Assessment of Functioning. A second alternative view is that the LPF denotes mere psychiatric severity, without the need to attach any substantive meaning of self- and interpersonal dysfunction to it. In this view, common features shared by all personality pathology can be denoted by, for example, simply considering the number and similarity of co-occurring diagnoses or a general score on a measure of psychiatric symptoms (Tyrer & Johnson, 1996).

To determine whether LPF relates to dynamic and subjective personality processes, independent of social and vocational outcomes or experienced burden of disease, researchers have evaluated whether LPF measures can be distinguished from measures of general psychosocial disability. For instance, in one study, psychiatrist-rated LPFS scores predicted prospective patient drop-out rates, whereas general measures of general psychosocial disability did not (Busmann et al., 2019). In another study, LPF scores and scores from the Standardized Assessment of Severity of Personality Disorder (Olajide et al., 2018), which omits a focus on self-function, were pitted against each other in predicting general function (Bach & Anderson, 2020). LPF scores significantly incremented the Standardized Assessment of Severity of Personality Disorder with 1% to 31% variance accounted for, compared to 0% to 8% when the opposite was examined. Taken together, these studies using different methodological approaches seem to suggest that LPF can be distinguished from general psychosocial disability. However, more research is needed given the low number of studies.

In addition, PD onsets in adolescence (Chanen et al., 2017). Yet, general psychosocial disability express itself differently in adults compared to youth (who are not yet in the workforce), and there may be unique developmental effects in how general personality function (LPF) and general impairment or disability relate to each other throughout the life span. Therefore, research evaluating these variables in adolescence may be of use. Adolescence has also been identified as a critical developmental period for the consolidation of a coherent sense of self and identity (Kroger et al., 2010). Substantial developmental research has been conducted to document progressive movement through Erikson's (1950) identity formation process, from an identity based on identifications (foreclosure status), through exploration (moratorium), to a new configuration, based on, but different from, the sum of its identificatory elements (achievement; Kroger et al., 2010; Marcia, 1980). The

self and identity function, as discussed earlier, forms a key part of the LPF definition of maladaptive personality function. In fact, some researchers have argued for the centrality of maladaptive self function as a driver or nexus or distinguishing feature of LPF (Livesley, 2011; Sharp, 2020; Sharp & Wall, 2021). In this regard, Buer Christensen et al. (2020) showed that the self versus interpersonal components of LPF was a better predictor of general psychosocial disability in patients, of whom the majority had a PD. Hutsebaut et al. (2017) found that although both the self and interpersonal component were significantly correlated with the Brief Symptom Inventory, the self-component correlation was significantly stronger. Weekers et al. (2019) demonstrated that the self component was more sensitive to change over the course of treatment than the interpersonal component. Finally, Bach and Hutsebaut (2018) found that the self component of a self-report LPF measure had a significantly stronger relationship with measures of general distress than the interpersonal component.

Against this background, the aim of the current study was to evaluate the incremental utility of maladaptive self and identity function over that of general psychosocial disability in predicting a PD-relevant outcome in adolescence. To operationalize general psychosocial disability, we included measures of general psychiatric severity (that is, the total sum of symptom measures of traditional Axis I disorders) and measures of peer problems, life satisfaction, and academic functioning. To operationalize a PD-relevant outcome, we chose traditional *DSM*-based features of borderline PD based on evidence that of all categorical *DSM–5* Section II PDs, BPD traits most strongly reflect a general personality pathology dimension (Sharp et al., 2015). We hypothesized that maladaptive self and identity function (a key feature of LPF) would increment measures of general psychosocial disability in predicting PD.

Method

Participants and Procedure

To assess relationships between variables across the full spectrum or psychiatric severity, we included two samples of adolescents. The first sample was a community-based sample of 379 11 to18-year-olds (M = 14.70, *SD* = 1.74) consisting of 212 girls (55.9%) and 167 boys (44.1%). Participants were recruited from six public urban (79.7%) and rural schools (19.3%) in Lithuania. Most participants (69.1%) were living in families with either biological or stepparents, 17.9% in divorced families, 7.2% in single-parent families, and 1.3% in foster care.

The second sample consisted of a clinical group of 74 11 to 17-year-olds (M = 15.05, *SD* = 1.47), of which 53 were girls (71.6%) and 21 (28.4%) were boys. Participants were all currently receiving outpatient and/or inpatient treatment for mental health problems. Of this sample, 44.6% suffered from depression, 23% from other emotional problems, 13.5% from eating disorders, 13.5% from externalizing problems and 5.4% from other mental health difficulties. Exclusion criteria were the presence of a developmental disorder (intellectual disability [IQ < 70]) and/or diagnosis of autism. Regarding family characteristics, the breakdown of family characteristics included the following: 51.3% families with either

biological or stepparents, 33.7% with divorced parents, 10.8% with a single parent, and 10.8% of participants came from foster care.

This study was approved by the Psychological Research Ethics Committee at Vilnius University. Invitations to participate in the study were distributed to adolescents and their parents via schools for the community-based sample. For the clinical sample, information about the study and invitations were distributed through the clinicians in mental health centers, clinics, and psychiatry units in the hospitals. Written informed consent was obtained from adolescents' parents or legal guardians and oral informed assent was obtained from adolescents before the study. All participation was voluntary. Before the questionnaires were completed, all participants were assured that all given information will be treated confidentially, processed anonymously, and accessed only by the researchers of the project. Participants of a community-based sample completed the survey during school hours. The questionnaires in the clinical sample were administered by researchers in the clinical setting.

Measures

Borderline Features—Borderline PD features were assessed using the Borderline Personality Questionnaire (BPQ; Poreh et al., 2006). The BPQ is a true/false self-report measure composed of 80 items comprising nine subscales corresponding to the nine *DSM–IV* BPD criteria. The BPQ has been widely used and has shown excellent diagnostic accuracy (.85), test–retest reliability (intraclass coefficient [ICC] = .92), and internal consistency in adolescents (α = .92; Chanen et al., 2008). Examination of the BPQ validity among adolescents in Germany (Henze et al., 2013) revealed a high internal consistency (α = .95), test–retest-reliability (r = .94), and criterion validity a through a significant correlation between the total BPQ score and the BPD status based on International Personality Disorder Examination (IPDE; Loranger et al., 1994) interview (r = .60, p < .0001). Further support for the validity of the BPQ was found in a study comparing patients with BPD to clinical controls aged 14 to 25 years, and a large sample of (primarily female) university students (M_{age} = 20.2 years; Fonseca-Pedrero et al., 2011). In addition, Chanen et al. (2008), when testing several instruments to screen for BPD in outpatient youth, showed that BPQ (as compared to the McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD; Zanarini et al., 2003) and IPDE-BPD) had the best mix of characteristics in terms of sensitivity, specificity, and negative predictive and positive predictive value. It also had the highest overall diagnostic accuracy.

To prepare the Lithuanian version of the BPQ, two independent translations from English to Lithuanian were compared, and the items were corrected to build the final version, which was back-translated to English. In accordance with previous studies (Chanen et al., 2008; Fonseca-Pedrero et al., 2011; Poreh et al., 2006), the BPQ total score shows internal consistency of (α =.94) in the current sample.

Maladaptive Self and Identity Function—To evaluate maladaptive self and identity function, we used the Lithuanian version (Ragelienė & Barkauskienė, 2020) of the Assessment of Identity Development in Adolescence (AIDA; Goth & Schmeck, 2018). The AIDA is a 58-item self-report measure of maladaptive identity development purported to

be a core dimension of personality pathology according to *DSM–5* Section III (American Psychiatric Association,' 2013; Bender et al., 2011; Erikson, 1950). The AIDA's total score captures maladaptive identity and differentiates between identity continuity and coherence, which are each further subdivided into three scales; however, a single factor of maladaptive identity was found to best account for all items (Goth et al., 2012). The AIDA has shown excellent internal consistency and construct validity in samples of German-speaking adolescents (Goth et al., 2012; Jung et al., 2013) as well as among Spanish-speaking adolescents in Mexico (Kassin et al., 2013) and English-speaking adolescents in the United States (Sharp et al., 2018). The Lithuanian culture-adapted version of AIDA demonstrated excellent total scale reliabilities, and exploratory factor analysis supported a one-factor solution speaking for a joint factor of maladaptive identity. The criterion validity of the AIDA-Lithuanian was supported by comparison of the AIDA scales' scores between a school sample and a clinical subsample of adolescents (Rageliene & Barkauskienė, 2020). In the current sample, internal consistency was excellent for the total score (α = .96). For further information see the AIDA project website: https://academic-tests.com. All versions are available free of charge for scientific studies provided by the project website of the original authors.

General Impairment

Psychiatric Symptoms Severity.: The Youth Self-Report (YSR/11–18; Achenbach & Rescorla, 2001) Total Problems scale was used to measure the overall level of psychopathology symptom severity. It contains 112 items that assess emotional and behavioral problems over the previous 6 months using 3-point scale responses (0 = *not true*, 1 = *somewhat or sometimes true*, 2 = *very true or often true*). The total problems score comprises the nine syndrome subscales: Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, Aggressive Behavior, and Other Problems. The adapted and standardized Lithuanian version of the YSR/11–18 (Žukauskienė et al., 2012) was used in the study. Studies using the standardized Lithuanian version of the YSR/11–18 (Žukauskienė et al., 2012) have shown high internal consistency (α =.90). In the present study, the Cronbach's α was .96.

Peer Problems.: To assess peer functioning, we used the Lithuanian version of the Strengths and Difficulties Questionnaire (SDQ; Gintiliene et al., 2004). The SDQ (Goodman, 2001; www.sdq.info) asks about 25 attributes, and the items are divided into five scales, generating scores for Emotional Symptoms, Conduct Problems, Hyperactivity, Peer Problems, and Prosocial Behavior. The SDQ has shown acceptable reliability and validity, performing at least as well as lengthier and longer established alternatives (Goodman, 2001). The validity examination of the Lithuanian version of the SDQ included internal consistency, inter- and intrascale correlations, exploratory and confirmatory factor analyses, comparison with clinical groups, and interrater correlations, and indicated adequate psychometric properties (Gintiliene et al., 2004). In the present study, the five-item Peer Problems subscale was used, and its Cronbach's α was .57, which is typical for measures with low numbers of items.

Life Satisfaction.: To index life satisfaction among adolescents, the Satisfaction With Life Scale (Diener et al., 1985) was chosen. It is a self-report instrument of five items answered on a 5-point Likert-type scale to assess global life satisfaction (e.g., "I am satisfied with my life"). In this study, we used a Lithuanian version of the Satisfaction With Life Scale already used in previous studies in Lithuania (Šilinskas & Žukauskienė, 2004). Internal consistency of the total score was high (α = .79) in the present study.

Academic Functioning.: Academic motivation was measured by the Perceived Academic Motivation Scale (Ruchkin et al., 2004; Weissberg et al., 1991), which contains six items describing the perceived importance of academic achievements and academic motivation (e.g., "It is important for me to be thought of as a good student by the other students"; "Education is so important that it is worth it to put up with things I do not like"). This measure is a part of the Social and Health Assessment (SAHA; Ruchkin et al., 2004). For the purposes of the SAHA study, the items were adapted from Jessor et al. (1989) and Hawkins et al. (1992). The scale was translated into Lithuanian, and its back-translation to English was reviewed by the SAHA team. Items are rated on a 4-point Likert-type scale (1 = *definitely not true*, 2 = *mostly not true*, 3 = *mostly true*, 4 = *definitely true*). Greater scores correspond to higher levels of perceived motivation. Cronbach's α for the total scale in the present study was .75.

Data Analytic Strategy

Descriptive Statistics and Preliminary Analyses—Analyses were conducted in SPSS Version 25.0 (IBM Corp, 2017). First, we computed descriptive statistics and examined bivariate relations between measures of borderline features (BPQ), maladaptive identity (AIDA), and general impairment (YSR Total Problems, SDQ Peer Problems, Life Satisfaction score, and Academic Motivation), as well as possible covariates of age and gender. Pearson's correlations were used to examine relations between all continuous variables. Also, *t* tests were used to examine differences in BPQ total scores between boys and girls.

Regression Analyses—Using the entire sample (community and clinical combined), we conducted a hierarchical linear regression to examine the incremental utility of AIDA maladaptive identity in predicting borderline features beyond age, gender, and general impairment. The dependent variable was the BPQ total score. Age and gender were entered at Step 1, general impairment variables (YSR Total Problems, SDQ Peer Problems, Life Satisfaction score, and Academic Motivation) were entered at Step 2, and AIDA maladaptive identity was entered at Step 3. We then repeated linear regression analysis within the community and clinical samples separately to determine whether the incremental utility of identity over general functioning in predicting borderline features differs depending on the group examined. Tolerance and the variance inflation factor were estimated as measures of multicollinearity for all models.

Results

Descriptive Statistics and Preliminary Analyses

Descriptive statistics and Pearson's correlations among main study variables are presented in Table 1.

BPQ scores were highly correlated with maladaptive identity as measured by the AIDA and demonstrated significant relations with all general impairment measures. More specifically, borderline features exhibited strong, positive correlations with the YSR total problems score; moderate, positive correlations with the SDQ peer problems scale; moderate-to-strong negative correlations with the Life Satisfaction measure; and weak, negative correlations with the academic motivation scale. Also, *t* tests revealed that girls had significantly higher scores then boys on the BPQ ($M = 30.89$ vs. 20.59, $t(403.72) = -7.40$, $p < .001$).

Of particular interest for the main research question of the current article, AIDA scores correlated highly with total problem severity (r = .77) and only moderately with peer problems (r = .39), life satisfaction (r = −.52) and academic functioning (r = −.20), all in the expected direction.

Regression Analyses

In all regression models, tolerance (.27–.996) and variance inflation factor (1.01–2.72) were within acceptable limits. The results of the regression model using the combined community and clinical sample are summarized in Table 2. BPQ scores were entered as dependent variable, age and gender were entered at Step 1, measures of general impairment (YSR Total Problems, SDQ Peer Problems, Life Satisfaction score, and Academic Motivation) entered at Step 2, and AIDA maladaptive identity entered at Step 3.

In Step 1, the overall model was significant, and gender was significantly related to BPQ scores. In Step 2, the overall model was significant, and gender, YSR Total Problems, SDQ peer problems, and Life Satisfaction each exhibited significant relations with BPQ scores. The change in adjusted R^2 values indicated a 62.5% change in the explained variance in BPQ scores due to the addition of psychosocial functioning measures to the model, which was significant, $F(4, 362) = 209.83$, $p < .001$. With the addition of maladaptive identity at Step 3, the overall model continued to be significant, and gender, YSR Total Problems, SDQ Total Problems, Life Satisfaction, and Maladaptive Identity each demonstrated significant relations with BPQ scores. The effect size was largest for YSR Total Problems (β = .42), followed closely by Maladaptive Identity (β = .41), and with smaller effect sizes for gender (β = .15), life satisfaction (β = −.08), and SDQ peer problems (β = .06). The change in adjusted R^2 values indicates a 7.1% change in the explained variance in BPQ scores due to the addition of AIDA maladaptive identity to the model, and this change was significant, $F(1, 361) = 125.513$, $p < .001$.

To determine whether the incremental utility of maladaptive self and identity functioning in predicting BPD features differs depending on the group examined, we repeated the regression analyses within the community and clinical samples separately.We report the change in adjusted R^2 values due to the addition of AIDA maladaptive identity in Step 3.

In the community sample, analyses revealed an 8.1% change in the explained variance in BPQ scores, $F(1, 299) = 103.37$, $p < .001$, due to the addition of maladaptive identity to the model. In the clinical sample, analyses revealed a 7.2% change in the explained variance in BPQ scores, $F(1, 54) = 21.60$, $p < .001$, due to the addition of AIDA maladaptive identity to the model.

Discussion

As research on LPF (Criterion A) is gaining momentum, a debate has emerged regarding the nature of Criterion A and its conceptualization (Meehan et al., 2019; Morey, 2019; Sharp & Wall, 2021; Widiger et al., 2019). The aim of the current study was to evaluate the incremental utility of a central feature of LPF, namely, maladaptive self and identity function, over that of general psychosocial disability in predicting a PD-relevant outcome in adolescents across the full continuum of severity (that is, in both community dwelling and clinical samples). To this end, a measure of maladaptive self and identity function was administered alongside measures of general psychiatric impairment, peer problems, life satisfaction, and academic functioning in two samples of adolescents: a community-dwelling sample and a sample of clinically-referred adolescents.

Consistent with the results from studies in adults that have investigated whether LPF can be distinguished from general psychosocial disability (Busmann et al., 2019; Garcia et al., 2018), our findings showed that maladaptive self and identity function incremented general psychosocial disability in the association with borderline features with similar magnitude for clinical and community samples when considered together and separately. Bivariate associations between AIDA scores and measures of general psychosocial disability evidenced a large association with overall psychopathology severity and moderate associations with measures of peer problems, life satisfaction, and academic functioning. This suggests greater overlap between the general factor of personality function as measured by the AIDA and general psychopathology compared to measures of social and educational functioning. To the extent that a total score on a psychopathology measure as used in this study may represent the general factor of psychopathology (p-factor; Caspi et al., 2014), our findings support recent suggestions of overlap between the p-factor, and the general factor of personality pathology (Widiger & Oltmanns, 2017) captured in the LPF (Criterion A) of the AMPD. Interpretation or our findings must, however, take into account the fact that we used the AIDA to operationalize general personality function. Although the idea that general personality function may be best understood through the lens of self-function has been suggested (Livesley, 2011; Sharp, 2020; Sharp & Wall, 2021), it is by no means the only view on how personality function should be conceptualized (for alternative views, see Kotov et al., 2021). Even so, other research has supported the idea that self- and identify function constitute the least overlapping features between Criteria A and B (Berghuis et al., 2012; Zimmermann et al., 2015). Our research makes an incremental contribution to this argument and justifies continued inquiry of the idea that the self component is the driver or nexus of LPF.

In the introduction, we discussed alternative views suggesting that LPF denotes general psychosocial disability (Widiger & Trull, 2007) or psychiatric severity (Tyrer & Johnson,

1996), without the need to attach any substantive meaning of self- and interpersonal dysfunction to it. In these views, common features shared by all personality pathology may be indexed by measures of general occupational or role functioning or total scores on a psychiatric measure. Our finding that a measure of maladaptive self and identity function (the AIDA) increments measures of general psychopathology/psychiatric severity (the YSR and SDQ) and general psychosocial functioning (life satisfaction, academic motivation) in predicting a PD-relevant outcome (BPD symptoms) suggests that LPF carries substantive meaning as maladaptive self functioning beyond mere psychiatric severity or global psychosocial impairment. It is important to tackle this question in adolescents because global functioning indicators are more closely aligned with educational function than occupational function, and where peer functioning is more prominent during this developmental stage (Steinberg, 2005). Elsewhere we have argued that PD onsets in adolescence because adolescence is the time when different levels of personality function (McAdams, 2015) bind into a unidimensional severity criterion (LPF/Criterion A), allowing for a coherent and integrated sense of self to emerge (Sharp & Wall, 2021). If this process of binding is interrupted, PD ensues, with knock-on effects for general psychosocial functioning, disability, or interpersonal dysfunction in social and educational/occupational functioning. Our argument is that the latter alone cannot represent the entry criterion (Criterion A) for PD because of the distinction between “disease” and “disability” (Clark & Ro, 2014; WHO, 2001). Disability is considered the consequence of failure of the development of a coherent sense of self, but cannot denote PD itself. Thus, because the symptoms of the PD (incoherent sense of self) cause the impairment, the impairment itself cannot be the disorder. To be specific to personality pathology, psychosocial functioning must somehow relate back to the person’s personality as the source of the relationship problems (Sharp, 2020). Thus, self-pathology offers a way to evaluate the integrative and organizational aspects of personality (Livesley, 2011; Sharp & Wall, 2021).

Our findings should be interpreted with the understanding that the ability to demonstrate incremental value depends on the outcome. In the current study, we used borderline features as the dependent variable. The BPQ was specifically chosen because it provides broad coverage of the borderline construct (as defined by the *DSM–IV*; Poreh et al., 2006) well beyond that of self functioning alone. Other dependent variables should be scrutinized to gain a better understanding of overlap and distinctiveness of various personality-related constructs. In addition, measures of LPF that cover the full LPF construct should also be used to develop a truly comprehensive understanding of overlap and distinctiveness of constructs. The study is further limited by its use of self-report measures and its cross-sectional design. The inclusion of interview-based measures and time-varying approaches (Busmann et al., 2019; Roche, 2018) would assist in contextualizing and refining our understanding of the questions addressed here in significant ways. Finally, our study was limited by the fact that measurement equivalence across groups were not established. Future studies, with a larger clinical sample, may consider first establishing invariance before combining groups for analyses. Similarly, ideally, equivalence of the Lithuanian measures to its English counterparts should be established in future studies.

Despite these limitations, the current study provides the first evidence that maladaptive self functioning increments general impairment in predicting a personality-disorder relevant

outcome in adolescence. It argues for the importance of retaining measures of subjective reflection on self- and identity-function in assessment of personality pathology.

References

Achenbach TM, & Rescorla LA (2001). Manual for ASEBA school-age forms and profiles. University of Vermont, Research Center for Children, Youth and Families.

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.).

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.).

Bach B, & Anderson JL (2020). Patient-Reported ICD-11 Personality disorder severity and DSM-5 level of personality functioning. Journal of Personality Disorders, 34(2), 231–249. 10.1521/pedi_2018_32_393 [PubMed: 30179575]

Bach B, & Hutsebaut J (2018). Level of Personality Functioning Scale–Brief Form 2.0: Utility in capturing personality problems in psychiatric outpatients and incarcerated addicts. Journal of Personality Assessment, 100(6), 660–670. 10.1080/00223891.2018.1428984 [PubMed: 29494782]

Bender DS, & Skodol AE (2007). Borderline personality as a self-other representational disturbance. Journal of Personality Disorders, 21(5), 500–517. 10.1521/pedi.2007.21.5.500 [PubMed: 17953503]

Bender DS, Morey LC, & Skodol AE (2011). Toward a model for assessing level of personality functioning in DSM-5, part I: A review of theory and methods. Journal of Personality Assessment, 93(4), 332–346. 10.1080/00223891.2011.583808 [PubMed: 22804672]

Berghuis H, Kamphuis JH, & Verheul R (2012). Core features of personality disorder: Differentiating general personality dysfunctioning from personality traits. Journal of Personality Disorders, 26(5), 704–716. 10.1521/pedi.2012.26.5.704 [PubMed: 23013339]

Buer Christensen T, Eikenaes I, Hummelen B, Pedersen G, Nysæter TE, Bender DS, Skodol AE, & Selvik SG (2020). Level of personality functioning as a predictor of psychosocial functioning-Concurrent validity of criterion A. Personality Disorders: Theory, Research, and Treatment, 11(2), 79–90. 10.1037/per0000352

Busmann M, Wrege J, Meyer AH, Ritzler F, Schmidlin M, Lang UE, Gaab J, Walter M, & Euler S (2019). Alternative model of personality disorders (DSM-5) predicts dropout in inpatient psychotherapy for patients with personality disorder. Frontiers in Psychology, 10, Article 952. 10.3389/fpsyg.2019.00952

Caspi A, Houts RM, Belsky DW, Goldman-Mellor SJ, Harrington H, Israel S, Meier MH, Ramrakha S, Shalev I, Poulton R, & Moffitt TE (2014). The p factor: One general psychopathology factor in the structure of psychiatric disorders? Clinical Psychological Science, 2(2), 119–137. 10.1177/2167702613497473 [PubMed: 25360393]

Chanen A, Sharp C, & Hoffman P, & Global Alliance for Prevention and Early Intervention for Borderline Personality Disorder. (2017). Prevention and early intervention for borderline personality disorder: A novel public health priority. World Psychiatry, 16(2), 215–216. 10.1002/wps.20429 [PubMed: 28498598]

Chanen AM, Jovev M, Djaja D, McDougall E, Yuen HP, Rawlings D, & Jackson HJ (2008). Screening for borderline personality disorder in outpatient youth. Journal of Personality Disorders, 22(4), 353–364. 10.1521/pedi.2008.22.4.353 [PubMed: 18684049]

Clark LA (2005). Temperament as a unifying basis for personality and psychopathology. Journal of Abnormal Psychology, 114(4), 505–521. 10.1037/0021-843X.114.4.505 [PubMed: 16351374]

Clark LA (2007). Assessment and diagnosis of personality disorder: Perennial issues and an emerging reconceptualization. Annual Review of Psychology, 58, 227–257. 10.1146/annurev.psych.57.102904.190200

Clark LA, & Ro E (2014). Three-pronged assessment and diagnosis of personality disorder and its consequences: Personality functioning, pathological traits, and psychosocial disability. Personality Disorders: Theory, Research, and Treatment, 5(1), 55–69. 10.1037/per0000063

Diener E, Emmons RA, Larsen RJ, & Griffin S (1985). The Satisfaction With Life Scale. Journal of Personality Assessment, 49(1), 71–75. 10.1207/s15327752jpa4901_13 [PubMed: 16367493]

Erikson E (1950). Childhood in society. Norton.

Fonseca-Pedrero E, Paino M, Lemos-Giráldez S, Sierra-Baigrie S, González MPGP, Bobes J, & Munõiz J (2011). Borderline personality traits in nonclinical young adults. Journal of Personality Disorders, 25(4), 542–556. 10.1521/pedi.2011.25.4.542 [PubMed: 21838568]

Garcia DJ, Skadberg RM, Schmidt M, Bierma S, Shorter RL, & Waugh MH (2018). It's not that difficult: An interrater reliability study of the DSM-5 section III Alternative Model for Personality Disorders. Journal of Personality Assessment, 100(6), 612–620. 10.1080/00223891.2018.1428982 [PubMed: 29505282]

Gintiliene G, Girdzijauskiene S, Cerniauskaite D, Lesinskiene S, Povilaitis R, & Puras D (2004). A standardized Lithuanian version of 'strengths and difficulties questionnaire' (SDQ) for school-aged children. Psychology, 29, 88–105. 10.15388/Psichol.2004.4355

Goodman R (2001). Psychometric properties of the strengths and difficulties questionnaire. Journal of the American Academy of Child & Adolescent Psychiatry, 40(11), 1337–1345. 10.1097/00004583-200111000-00015 [PubMed: 11699809]

Goth K, Foelsch P, Schlüter-Müller S, Birkhölzer M, Jung E, Pick O, & Schmeck K (2012). Assessment of identity development and identity diffusion in adolescence - Theoretical basis and psychometric properties of the Self-Report Questionnaire AIDA. Child and Adolescent Psychiatry and Mental Health, 6(1), Article 27. 10.1186/1753-2000-6-27

Goth K, & Schmeck K (2018). AIDA (Assessment of Identity Development in Adolescence) German Version: A Self-Report Questionnaire for measuring identity development in adolescence - Short manual. Academic-tests. [German]

Hawkins JD, Catalano RF, & Miller JY (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. Psychological Bulletin, 112(1), 64–105. 10.1037/0033-2909.112.1.64 [PubMed: 1529040]

Henze R, Barth J, Parzer P, Bertsch K, Schmitt R, Lenzen C, Herpertz S, Resch F, Brunner R, & Kaess M (2013). Validierung eines Screening-Instruments zur Borderline-Persönlichkeitsstörung im Jugend- und jungen Erwachsenenalter - Gütekriterien und Zusammen-hang mit dem Selbstwert der Patienten [Validation of a screening instrument for borderline personality disorder in adolescents and young adults - psychometric properties and association with the patient's self-esteem]. Fortschritte Der Neurologie-Psychiatrie, 81(6), 324–330. 10.1055/s-0033-1335408 [PubMed: 23775165]

Hutsebaut J, Kamphuis JH, Feenstra DJ, Weekers LC, & De Saeger H (2017). Assessing DSM-5-oriented level of personality functioning: Development and psychometric evaluation of the Semi-Structured Interview for Personality Functioning DSM-5 (STiP-5.1). Personality Disorders: Theory, Research, and Treatment, 8(1), 94–101. 10.1037/per0000197

IBM Corp. (2017). IBM SPSS Statistics for Windows, Version 25.0.

Jessor R, Donovan JR, & Costa FM (1989). School health study. Institute of Behavioral Science, University of Colorado.

Jung E, Pick O, Schlüter-Müller S, Schmeck K, & Goth K (2013). Identity development in adolescents with mental problems. Child and Adolescent Psychiatry and Mental Health, 7(1), 26. 10.1186/1753-2000-7-26 [PubMed: 23899433]

Kassin M, De Castro F, Arango I, & Goth K (2013). Psychometric properties of a culture-adapted Spanish version of AIDA (Assessment of Identity Development in Adolescence) in Mexico. Child and Adolescent Psychiatry and Mental Health, 7, 25. 10.1186/1753-2000-7-25 [PubMed: 23899385]

Kotov R, Krueger RF, Watson D, Cicero DC, Conway CC, DeYoung CG, Eaton NR, Forbes MK, Hallquist MN, Latzman RD, Mullins-Sweatt SN, Ruggero CJ, Simms LJ, Waldman ID, Waszczuk MA, & Wright AGC (2021). The Hierarchical Taxonomy of Psychopathology (HiTOP): A quantitative nosology based on consensus of evidence. Annual Review of Clinical Psychology, 17, 83–108. 10.1146/annurev-clinpsy-081219-093304

Kroger J, Martinussen M, & Marcia JE (2010). Identity status change during adolescence and young adulthood: A meta-analysis. Journal of Adolescence, 33(5), 683–698. 10.1016/j.adolescence.2009.11.002 [PubMed: 20004962]

Livesley J (2003). Practical management of personality disorders. Guilford Press.

Livesley J (2011). Tentative steps in the right direction. Personality and Mental Health, 5(4), 263–270. 10.1002/pmh.182

Loranger AW, Sartorius N, Andreoli A, Berger P, Buchheim P, Channabasavanna SM, Coid B, Dahl A, Diekstra RFW, Ferguson B, Jacobsberg LB, Mombour W, Pull C, Ono Y, & Regier DA (1994). The International Personality Disorder Examination. The World Health Organization/Alcohol, Drug Abuse, and Mental Health Administration international pilot study of personality disorders. Archives of General Psychiatry, 51(3), 215–224. 10.1001/archpsyc.1994.03950030051005 [PubMed: 8122958]

Marcia JE (1980). Identity in adolescence. In Adelson J (Ed.), Hand-book of adolescent psychology (pp. 159–187). Wiley.

McAdams DP (2015). The art and science of personality development. The New York: Guilford Press.

Meehan KB, Siefert C, Sexton J, & Huprich SK (2019). Expanding the role of levels of personality functioning in personality disorder taxonomy: Commentary on “Criterion A of the AMPD in HiTOP”. Journal of Personality Assessment, 101(4), 367–373. 10.1080/00223891.2018.1551228 [PubMed: 30907636]

Morey LC (2019). Thoughts on the assessment of the DSM-5 alternative model for personality disorders: Comment on Sleep et al. (2019). Psychological Assessment, 31(10), 1192–1199. 10.1037/pas0000710 [PubMed: 31580132]

Morey LC, Berghuis H, Bender DS, Verheul R, Krueger RF, & Skodol AE (2011). Toward a model for assessing level of personality functioning in DSM-5, part II: Empirical articulation of a core dimension of personality pathology. Journal of Personality Assessment, 93(4), 347–353. 10.1080/00223891.2011.577853 [PubMed: 22804673]

Olajide K, Munjiza J, Moran P, O’Connell L, Newton-Howes G, Bassett P, Akintomide G, Ng N, Tyrer P, Mulder R, & Crawford MJ (2018). Development and psychometric properties of the standardized assessment of severity of personality disorder (SASPD). Journal of Personality Disorders, 32(1), 44–56. 10.1521/pedi_2017_31_285 [PubMed: 28513349]

Poreh AM, Rawlings D, Claridge G, Freeman JL, Faulkner C, & Shelton C (2006). The BPQ: A scale for the assessment of borderline personality based on *DSM–IV* criteria. Journal of Personality Disorders, 20(3), 247–260. 10.1521/pedi.2006.20.3.247 [PubMed: 16776554]

Ragelienė T, & Barkauskienė R (2020). Culture-adapted version Lithuanian of the Self-Report Questionnaire AIDA (Assessment of Identity Development in Adolescence; authors Goth & Schmeck) - Short manual. Academic-tests. [Lithuanian]

Roche MJ (2018). Examining the alternative model for personality disorder in daily life: Evidence for incremental validity. Personality Disorders: Theory, Research, and Treatment, 9(6), 574–583. 10.1037/per0000295

Ruchkin V, Schwab-Stone M, & Vermeiren R (2004). Social and Health Assessment (SAHA): Psychometric development summary. Yale University.

Sharp C (2020). Adolescent personality pathology and the alternative model for personality disorders: Self development as nexus. Psychopathology, 53(3–4), 198–204. 10.1159/000507588 [PubMed: 32464626]

Sharp C, Vanwoerden S, Odom A, & Foelsch P (2018). Culture-adapted version English USA of the Self-Report Questionnaire AIDA (Assessment of Identity Development in Adolescence; authors Goth & Schmeck) - Short manual. University of Houston.

Sharp C, & Wall K (2021). DSM-5 Level of personality functioning: Refocusing personality disorder on what it means to be human. Annual Review of Clinical Psychology, 17, 313–337. 10.1146/annurev-clinpsy-081219-105402

Sharp C, Wright AG, Fowler JC, Frueh BC, Allen JG, Oldham J, & Clark LA (2015). The structure of personality pathology: Both general (‘g’) and specific (‘s’) factors? Journal of Abnormal Psychology, 124(2), 387–398. 10.1037/abn0000033 [PubMed: 25730515]

Šilinskas G, & Žukauskienė R (2004). Subjektyvios geroves išgyvenimas ir su juo susiję veiksniai vyru imtyje. Psichologija, 30, 47–12. 10.15388/Psichol.2004.4347

Skodol AE (2018). Impact of personality pathology on psychosocial functioning. Current Opinion in Psychology, 21, 33–38. 10.1016/j.copsyc.2017.09.006 [PubMed: 28961463]

Steinberg L (2005). Cognitive and affective development in adolescence. Trends in Cognitive Sciences, 9(2), 69–74. 10.1016/j.tics.2004.12.005 [PubMed: 15668099]

Tyrer P, & Johnson T (1996). Establishing the severity of personality disorder. The American Journal of Psychiatry, 153(12), 1593–1597. 10.1176/ajp.153.12.1593 [PubMed: 8942456]

Weekers LC, Hutsebaut J, & Kamphuis JH (2019). The Level of Personality Functioning Scale-Brief Form 2.0: Update of a brief instrument for assessing level of personality functioning. Personality and Mental Health, 13(1), 3–14. 10.1002/pmh.1434 [PubMed: 30230242]

Weissberg RP, Voyce CK, Kasprow WJ, Arthur MJ, & Shriver TP (1991). The social and health assessment. Author.

Widiger TA, Bach B, Chmielewski M, Clark LA, DeYoung C, Hopwood CJ, Kotov R, Krueger RF, Miller JD, Morey LC, Mullins-Sweatt SN, Patrick CJ, Pincus AL, Samuel DB, Sellbom M, South SC, Tackett JL, Watson D, Waugh MH, … Thomas KM (2019). Criterion A of the AMPD in HiTOP. Journal of Personality Assessment, 101(4), 345–355. 10.1080/00223891.2018.1465431 [PubMed: 29746190]

Widiger TA, & Oltmanns JR (2017). The general factor of psychopathology and personality. Clinical Psychological Science, 5(1), 182–183. 10.1177/2167702616657042 [PubMed: 30416877]

Widiger TA, & Trull TJ (2007). Plate tectonics in the classification of personality disorder: Shifting to a dimensional model. The American Psychologist, 62(2), 71–83. 10.1037/0003-066X.62.2.71 [PubMed: 17324033]

World Health Organization. (2001). ICF: International classification of functioning, disability, and health.

Zanarini MC, Frankenburg FR, Reich DB, & Fitzmaurice G (2012). Attainment and stability of sustained symptomatic remission and recovery among patients with borderline personality disorder and axis II comparison subjects: A 16-year prospective follow-up study. The American Journal of Psychiatry, 169(5), 476–483. 10.1176/appi.ajp.2011.11101550 [PubMed: 22737693]

Zanarini MC, Vujanovic AA, Parachini EA, Boulanger JL, Frankenburg FR, & Hennen J (2003). A screening measure for BPD: The Mclean Screening Instrument for Borderline Personality Disorder (MSI-BPD). Journal of Personality Disorders, 17(6), 568–573. 10.1521/pedi.17.6.568.25355 [PubMed: 14744082]

Zimmermann J, Böhnke JR, Eschstruth R, Mathews A, Wenzel K, & Leising D (2015). The latent structure of personality functioning: Investigating criterion a from the alternative model for personality disorders in DSM-5. Journal of Abnormal Psychology, 124(3), 532–548. 10.1037/abn0000059 [PubMed: 26052618]

Žukauskienė R, Kajokienė I, & Vaitkevičius R (2012). Mokyklinio am ziaus vaikų ASEBA klausimynų (CBCL6/18, TRF6/18, YSR11/18) vadovas. Lituanistika Database.

Table 1

Bivariate Relations Among Study Variables

Variable	1.	2.	3.	4.	5.	6.	7.
1. BPQ (*n* = 412)							
2. AIDA Maladaptive identity (n = 442)	.81***						
3. YSR Total problems (*n* = 442)	.83***	.77***					
4. SDQ Peer problems (*n* = 437)	.42***	.39***	.39***				
5. Life satisfaction (*n* = 430)	−.60***	−.52***	−.56***	−.38***			
6. Academic motivation (*n* = 436)	−.25***	−.20***	−.31***	−.27***	.39***		
7. Age	.03	.00	.04	.08	−.17***	−.13**	
Mean	26.82	87.09	54.74	2.45	11.96	16.51	14.75
SD	15.43	40.70	32.73	1.88	3.96	3.48	1.70
Skew	.49	.23	.82	1.04	−.27	−.56	−.12
Kurtosis	−.72	−.69	.09	.98	−.31	−.01	−1.24

Note. BPQ = Borderline Personality Questionnaire; AIDA = Assessment of Identity Development in Adolescence; YSR = Youth Self-Report; SDQ = Strengths and Difficulties Questionnaire.

** $p < .01$.

*** $p < .001$.

Table 2

Hierarchical Regression Predicting Borderline Personality Questionnaire Total Score

Variable		b	*SE*	β	*t*	*p*	Adj. R^2	Δ Adj. R^2
Step 1[a]	Age	.01	.44	.00	.01	.99	10.1%	
	Gender	10.03	1.53	.33	6.56	<.001		
Step 2[b]	Age	−.24	.25	−.03	−.95	.35	72.6%	62.5%***
	Gender	4.95	.90	.16	5.49	<.001		
	YSR Total problems	.32	.02	.68	19.24	<.001		
	SDQ Peer problems	.80	.25	.10	3.15	<.001		
	Life satisfaction	−.52	.14	−.14	−3.78	<.001		
	Academic motivation	.08	.14	.02	.56	.58		
Step 3[c]	Age	.02	.22	.00	.11	.91	79.7%	7.1%***
	Gender	4.61	.78	.15	5.92	<.001		
	YSR Total problems	.20	.02	.42	10.73	<.001		
	SDQ Peer problems	.51	.22	.06	2.33	.02		
	Life satisfaction	−.30	.12	−.08	−2.48	.01		
	Academic motivation	−.05	.12	−.01	−.44	.66		
	AIDA Maladaptive identity	.44	.04	.41	11.25	<.001		

Note. BPQ = Borderline Personality Questionnaire; AIDA = Assessment of Identity Development in Adolescence; YSR = Youth Self-Report; SDQ = Strengths and Difficulties Questionnaire.

[a]model significant, $F(2, 366) = 21.61$, $p < .001$.

[b]model significant, $F(6, 362) = 163.53$, $p < .001$.

[c]model significant, $F(7, 361) = 206.84$, $p < .001$.

***$p < .001$.

Personal Disord. Author manuscript; available in PMC 2023 July 02.