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A double-edged sword? Sub-types of psychological flexibility are associated with distinct psychiatric disorders

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Abstract

Introduction: Psychological flexibility is associated with both better and worse health outcomes. The objective of this study was to differentiate two types of psychological flexibility - affective instability and interpersonal flexibility – and to estimate associations with psychiatric disorders.

Method: Study participants were drawn from a large outpatient psychiatric sample that completed standard assessment batteries at an academic hospital ($N = 1,358$, 55.5% males, mean age=43.87, $SD=16.57$).

Results: Less interpersonal flexibility was associated with depressive diagnoses. Greater affective instability was associated with bipolar disorder and was negatively associated with psychotic disorders, but showed no association with depressive disorders.

Conclusion: Differing degrees of flexibility and instability in emotional and interpersonal domains may be uniquely associated with specific classes of psychological disorders.

Keywords

psychological flexibility; psychiatric disorders; interpersonal flexibility; affective lability

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Ethical Approval: Data for this study was drawn from a larger repository maintained in an outpatient psychology clinic that is approved for research use by the local Institutional Review Board (IRB).

Informed Consent: All participants were provided the opportunity to accept or decline approval for subsequent analysis of de-identified data for anonymized research use in compliance with IRB ethics and approval.

Psychological flexibility is both a blessing and a curse. Evidence suggests that flexibility predicts adaptive outcomes after stressor exposure (Ong, Zautra, & Finan, 2017), better psychological (Kashdan & Rottenberg, 2010) and physical health (Rozanski & Kubzansky, 2005), physiological adaptability (Tuck, Grant, Sollers, Booth, & Consedine, 2016), interpersonal well-being (Paulhus & Matrin, 1988), and, prospectively, better adjustment after trauma (Bonanno & Burton, 2013; Bonanno, Papa, Lalande, Westphal, & Coifman, 2004). However, interpretation of these findings is complicated by the fact that “psychological flexibility” is used as an umbrella term that may encompass several distinct elements.

For example, when psychological flexibility is defined as encompassing both lability and instability, studies have found that it features prominently in the etiology, course, and clinical manifestation of psychiatric disorders, including depression (Blatt, 2004; Coyne, 1976; Markowitz, 2003; Segrin, 2000), anxiety (Cisler, Olatunji, Feldner, & Forsyth, 2010), bipolar disorder (Stange et al., 2016), psychotic disorders (Hellvin et al., 2010), and general psychopathology (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Gross, 1998; Hopwood, Wright, Ansell, & Pincus, 2013; Sullivan, 1953). These seemingly contradictory findings regarding the benefits vs. liabilities associated with psychological flexibility create the intriguing possibility that this universal human potential is associated with both adaptive and maladaptive outcomes, but may also imply that there are multiple forms of flexibility. The present study sought to differentiate two types of psychological flexibility – affective instability and interpersonal flexibility – and to investigate whether these subtypes were uniquely associated with greater or lower odds of distinct classes of psychological disorders. Identifying unique associations is important because it would help us understand the mechanisms by which different aspects of psychological flexibility might act as protective vs. risk factors, ultimately informing treatment.

These two facets of psychological flexibility, including interpersonal flexibility and affective instability, have been indexed in diverse, often overlapping ways and contradictory findings regarding the beneficial vs. detrimental associations may partially reflect a degree of semantic tautology. The term ‘flexibility’ tends to be used in instances associated with positive outcomes and ‘instability’ when outcomes are negative even though, operationally, flexibility and instability are fundamentally both capturing degrees of variability in human functioning. This commonality noted, there are several differences in the way in which interpersonal flexibility and affective instability are operationalized within the current report.

Conceptually speaking, interpersonal flexibility may characterize a more voluntary response compared to affective instability. The literature on interpersonal flexibility suggests that it is a quality that is conscious or voluntarily deployed (Paulhus & Matrin, 1988) whereas affective instability is characterized by a lack of control and a difficulty regulating affective responses (Marwaha et al., 2014). Prima facie, such a conceptualization suggests that interpersonal flexibility should generally predict better outcomes but affective instability worse. What is less clear is whether these two elements of human functioning should predict the same types of mental health outcomes in the same ways.

A second difference between interpersonal flexibility and affective instability, as operationalized in the present study, is that interpersonal flexibility specifically refers to functioning in the interpersonal domain, whereas affective instability refers to functioning in the affective domain. Interpersonal flexibility captures the ability to deploy a range of interpersonal responses that are appropriate for the situation (Paulhus & Matrin, 1988). Interpersonal theorists posit that interpersonal flexibility is the single most important predictor of adaptive adjustment (Leary, 1957; Sullivan, 1953) and evidence suggests that deficits in interpersonal flexibility are consistently linked to depression (Hames, Hagan, & Joiner, 2013; Segrin, 2000; Vrshek-Schallhorn et al., 2015).

On the other hand, affective instability refers to rapid oscillations of intense affect, with difficulty regulating these oscillations or their behavioral consequences (Marwaha, He, et al., 2014); unsurprisingly, instabilities of this type have been associated with the presence, course, and outcome of bipolar disorder (Stange et al., 2016), but may also be involved in depression (McConville & Cooper, 1996; Thompson, Berenbaum, & Bredemeier, 2011; Thompson et al., 2012) and, to a lesser extent, anxiety (Bowen, Clark, & Baetz, 2004) and psychotic disorders (Myin-Germeys & van Os, 2007). However, another stream of literature has shown either a weak or nonexistent association among mood disorders and affective instability (Cowdry, Gardner, O'Leary, Leibenluft, & Rubinow, 1991). This inconsistency may suggest that affective instability may have differential associations with specific classes of psychological disorders. For example, it could be that affective instability is not as central a maintaining mechanism for depression as it is for bipolar or psychotic disorders. However, such associations have yet to be empirically tested. Therefore, the primary aim of the present report was to examine the relative ability of interpersonal flexibility and affective instability to differentially predict odds of presenting with one of four primary psychiatric diagnoses – depression, bipolar, anxiety, and psychotic disorder.

In the current study, we seek to answer our central research question regarding the differential associations among these two constructs by comparing how well interpersonal flexibility and affective instability demonstrated associations with primary psychiatric diagnoses in a large, clinical dataset using selected subscales of the Personality Assessment Inventory (PAI; Morey, 1991) that have been used in prior studies to index interpersonal flexibility and affective instability (see Measures section for more details). Differentiating between these two subtypes of psychological flexibility is important because understanding specific elements of dysregulation in psychopathology can inform intervention and theoretical models by identifying the univ dynamics that underlie multiple disorders. More specifically, the current report addresses two key questions: 1) Are interpersonal flexibility and affective instability differentially associated with specific classes of psychiatric disorders? and 2) Do these two indices represent distinct qualities of psychosocial functioning? This study extends prior knowledge in several ways. First, we operationalized interpersonal flexibility and affective instability in the same dataset and compare their effects among a single clinical sample. Second, we examine the concurrent associations with psychiatric disorder among these two constructs. Ascertaining the relative and concurrent contribution of these two processes is important because it can help illuminate the underlying architecture of psychiatric disorders. Preliminarily, we expected interpersonal

flexibility deficits would be associated with depressive psychopathology whereas affective instability would index bipolar disorders.

Method

Participants

Study participants were psychiatric outpatients who completed standard neurocognitive and psychological assessment batteries at a large, academic hospital ($N = 1,358$). Predominant primary referral diagnoses were depressive disorder (47.8%), followed by bipolar disorder (14.1%), anxiety disorder (11.6%), and psychotic disorder (6.2%). This is a highly comorbid sample: 33.1% of the sample carried only one of the above four diagnoses, while 40.1% carried two diagnoses, and 26.8% carried at least three of the above diagnoses. No participant carried all four diagnoses. The study sample was 55.5% male and an average age of 43.87 years-old ($SD = 16.57$). Participants were predominantly Caucasian (86.9%), but also included African American (4.7%), Asian (3.0%) and Hispanic (6.1%) outpatients. Almost half of the participants were never married (46.2%), while 14.7% were divorced and 2.5% widowed, and 28.7% were unmarried. The average number of years of education was 14.36 years ($SD = 3.02$).

Procedure

This cross-sectional study utilized a subset of data from a larger repository maintained in an outpatient psychology clinic that is approved for research use by the local institutional review board. This repository contains information collected through semi-structured clinical interviews and associated scores (at both the scale and subscale level) for a wide range of psychological and neuropsychological instruments.

Measures

Psychopathology.—DSM-IV-TR or DSM 5 (American Psychiatric Association, 2000; 2013) psychiatric diagnosis was identified by the referring licensed mental health clinician (a psychiatrist, psychologist, social worker, or nurse practitioner) based on standard clinical diagnostic professional protocols. Referring clinical diagnoses were categorized into the following domains based on their shared commonality: depressive disorder, bipolar disorder, anxiety disorder, and psychotic disorders. Analyses were restricted to the primary presenting diagnosis from among these four categories.

A comorbidity variable was generated by coding the total number of diagnoses for each participant. This variable was generated by tallying the total number of diagnoses from among the four categories considered in the present report (range 1-4). As such, this variable represents the total number of diagnoses present, including the primary diagnosis.

Personality Assessment Inventory (PAI; Morey, 1991).—The PAI is a self-report measure of psychopathology consisting of 344 items rated on a 4-point scale. This measure produces 22 non-overlapping scales that assess clinical symptoms, treatment consideration factors, administration validity and response style, and interpersonal styles. The PAI has demonstrated reliable and valid psychometric properties in numerous groups, including

forensic populations (Patry & Magaletta, 2015), Veterans (Thomas, Hopwood, Orlando, Weathers, & McDevitt-Murphy, 2011), deployed military personnel (Morey et al., 2011), clinical samples (Slavin-Mulford et al., 2012), and college students (Ansell, Kurtz, DeMoor, & Markey, 2011) (see Blais, Baity, & Hopwood (2010) for an edited volume regarding clinical applications of the PAI). In the present report, analyses focused on three specific subscales most conceptually linked to affective instability and interpersonal flexibility: Borderline Features (BOR-A), Dominance (DOM) and Warmth (WRM).

Interpersonal flexibility.—To index interpersonal flexibility, we combined items from the Dominance and Warmth subscales in the PAI in a three-step algorithm to index individual differences in the relative strength and balance of each interpersonal style. These two subscales were developed to measure interpersonal styles based on interpersonal circumplex theory (Leary, 1957). This approach defines interpersonal style as a dynamic interplay between two orthogonal interpersonal qualities termed affiliation, communion or warmth, and agency, control, or dominance. According to this model, an individual's interpersonal style can be described by some combination of their relative standing on these two dimensions. The Dominance (PAI-DOM) subscale is characterized by a “forceful, confident, controlling interpersonal style, in contrast to a more self-critical, passive, and timid style of relating to others.” Sample items from the DOM scale are, *I am a “take charge” type of person; I’m a natural leader; I would be good at a job where I tell others what to do; I have trouble standing up for myself* (reverse scored); *I feel best in situations where I am the leader; I prefer to let others make decisions* (reverse scored), *I say what’s on my mind; I don’t like letting people know when I disagree with them* (reverse scored). The Warmth subscale (PAI-WRM) is defined as a “sociable, understanding and agreeable interpersonal style as opposed to a frank, strict, and critical interpersonal orientation” (Morey, 1991, p. 74). Sample items from the WRM subscale are, *I’m a very sociable person; It’s easy for me to make new friends; I like to meet new people; I am a warm person; It takes me a while to warm up to people* (reverse scored); *It takes a while for people to get to know me* (reverse scored); *I try to include people who seem left out; I’m an affectionate person; I have more friends than most people I know.*

Following prior studies of psychological flexibility in contrasting attitudes (Thompson & Zanna, 1995), emotion regulation (Bonanno et al., 2004), and coping (Bonanno et al., 2011), it was reasoned that because these subscales index contrasting interpersonal styles, they could be combined in a similar manner to yield an index of the ability or tendency to flexibly employ both interpersonal styles. Thus, the dominance and warmth subscales of the PAI were combined using a three-step algorithm. First, after z-standardizing the two scores, dominance and warmth were summed. Second, a polarity score representing the absolute difference between dominance and warmth was calculated by subtracting one value from the other. Finally, we subtracted the polarity score (step 2) from the sum score (step 1) to yield an index that represents the relative magnitude and balance of these two contrasting interpersonal styles within each individual. This index is more interpretable than summing dominance and warmth scores, as this sum score would not discriminate between individuals who endorse both dominance and warmth, verses those who strongly endorse only one style. Sum scores are therefore biased by polarity and obscure relative differences. Said another

way, the highest flexibility scores are characterized by individuals who endorse high levels of *both* dominance and warmth, rather than high levels of only one style. By incorporating a polarity score (step 2) into our calculation we can index individual differences in the strength and presence of both interpersonal styles. See Supplement 1 for two examples of this scoring algorithm with different hypothetical participants.

Affective instability (PAI BOR-A).—The borderline features (BOR-A) subscale of the PAI indexes individual differences in affective styles characterized as sudden, rapid, mood changes. A prior study using ecological momentary assessments of affective instability demonstrated that this sub-scale effectively assessed this quality (Solhan, Trull, Jahng, & Wood, 2009), and that the BOR-A subscale was positively correlated with the Affect Lability Scale (ALS; Harvey, Greenberg, & Serper, 1989). Items from the BOR-A subscale include: *My mood can shift quite suddenly*; *My moods get quite intense*; *My mood is very steady* (reverse scored); *I have little control over my anger*; *I've always been a pretty happy person* (reverse scored); *I've had times when I so mad I couldn't do enough to express all my anger*. Reliabilities for subscales of the PAI could not be calculated as only composite scores, rather than individual item values, were available in the dataset.

Analytic Approach

First, zero-order Spearman's correlation coefficients between interpersonal flexibility, affective instability, and psychiatric disorder diagnoses of bipolar disorder, anxiety disorder, depressive disorder, and psychotic disorder were examined. Second, to test the concurrent association between interpersonal flexibility vs. affective instability and psychiatric disorders, we fit multiple hierarchical binary logistic regression models with age, gender, and psychiatric comorbidity entered as covariates and interpersonal flexibility and affective instability entered in separate steps to determine the relative variance these constructs explained in predicting associations with discrete psychiatric disorders (depression, bipolar, anxiety, and psychotic disorders).

Results

Zero-order bivariate correlations are shown in Table 1. Whereas gender showed no significant associations with study variables, age was positively correlated with interpersonal flexibility and negatively correlated with affective instability. Affective instability and interpersonal flexibility were negatively associated. As expected, interpersonal flexibility scores were positively associated with a diagnosis of depression while affective instability was associated with a diagnosis of bipolar disorder.

Coefficients of models specified to examine multivariate associations between interpersonal flexibility, affective instability, and psychiatric diagnoses with age, gender, and psychiatric comorbidity are presented in Table 2. As predicted, greater interpersonal flexibility was associated with lower odds of a depression diagnosis, $OR = .92$, 95% CI [.86 - .98], $X^2=6.58$, $df=3$, $p=.01$ in the first step, but when affective instability was entered into the model, the association between interpersonal flexibility and depression was reduced to non-significance; affective instability also did not have a significant association with depression. In models assessing associations with a primary bipolar disorder diagnosis, only affective

instability was significantly associated with greater odds of bipolar disorder in the final model, OR = 1.03, 95% CI [1.01 - 1.04], $X^2=16.06$, $df=5$, $p<01$; interpersonal flexibility was non-significant in this model. Interestingly, affective instability was associated with a reduced odds of a primary psychotic disorder diagnosis, OR = .97, 95% CI [.95 – 1.00], $X^2=38.65$, $df=5$, $p<001$, while interpersonal flexibility was not significant in the final model. Neither affective instability nor interpersonal flexibility was associated with a primary anxiety disorder in the final model.

Discussion

In contributing to a small but growing body of research on how the universal human capacity for psychological flexibility is associated with health outcomes, the current report had two broad aims: To evaluate whether interpersonal flexibility and affective instability 1) are distinct constructs, and 2) show different associations with specific classes of psychiatric disorders. As expected, we found evidence to suggest that interpersonal flexibility and affective instability indexed different psychiatric disorders: interpersonal flexibility was associated with depressive disorders, whereas greater affective instability was associated with increased odds of bipolar disorder, but reduced odds of psychotic disorder. Anxiety disorders were not associated with either interpersonal flexibility or affective instability. Below, we discuss these findings more fully, integrate them with prior studies in the area, and consider clinical implications.

As an initial comment, it is worth noting that the fact that interpersonal flexibility and affective instability separately indexed different classes of psychiatric disorders might imply that these two facets of self-regulation index distinct constructs of distinct relevance to pathology; clearly variability in functioning of this kind is not monolithic. This provides some evidence for variability in different domains of psychological flexibility, though interpretations must be viewed with caution given the modest association between interpersonal flexibility and depression.

Our primary findings appear to suggest that interpersonal flexibility and affective instability are associated with different classes of psychiatric disorders. Analyses suggested a modest univariate association between interpersonal flexibility deficits and depression, a pattern that is consistent with prior literature showing that deficits specifically in *interpersonal* self-regulation may be central to the maintenance and onset of depressive disorders (Blatt & Zuroff, 1992; Hames et al., 2013; Segrin, 2000). However, there have been mixed findings regarding the relative contribution of interpersonal flexibility and affective instability to depressive disorders and our results are no exception. When affective instability was entered into the model, interpersonal flexibility was no longer significantly associated with depression, suggesting there could be some shared variance between these two constructs relative to depression. On the one hand, deficits in emotion regulatory skills are known to prospectively predict depressive symptoms (Berking, Wirtz, Svaldi, & Hofmann, 2014; Hofmann, Sawyer, Fang, & Asnaani, 2012; Radkovsky, McArdle, Bockting, & Berking, 2014; Stange, Alloy, & Fresco, 2017) and studies have suggested that affective instability may impair interpersonal functioning among depressed individuals by increasing hostility and unpredictability in interpersonal exchanges (Thompson et al., 2012). On the other hand,

there is also some evidence that interpersonal impairments precede depressed mood, suggesting that affective deficits reflect issues in relating to others (Hammen & Brennan, 2002; Petty, 2004). Clearly, the current data do not permit commentary regarding the temporal precedence of these two psychological flexibility sub-types.

Similarly, consistent with the notion that these two forms of variability in psychological flexibility may be associated with different psychiatric disorders, is the finding that affective instability was associated with greater odds of bipolar disorder but lower odds of a psychotic disorder, as well as the finding that instability did not show an association with depressive disorders. In addition to being methodologically important (i.e., demonstrating that affective instability is not indexing “good” or “bad” functioning per se), these findings are consistent with a large literature documenting the role of affective lability in bipolar disorder (Birmaher et al., 2013; Stange et al., 2016). However, given that affective instability was also associated, albeit inversely, with psychotic disorders suggests caution is warranted and methodological interpretations are also possible. While there is some prior evidence that mood instability is associated with schizophrenia, albeit less robustly than bipolar disorder (Marwaha, Broome, Bebbington, Kuipers, & Freeman, 2014; Patel et al., 2015), the pattern we identified here may also reflect the weighting the BOR-A scale places on “control over mood”, or the fact that mood is not being elicited by external stimuli in the pathology of psychosis in the same way that it is for other disorders.

Perhaps unsurprisingly then, it appears that psychological flexibility is indeed a double-edged sword, with findings pointing toward several intriguing possibilities. Affective science research has tended to denote the benefits associated with emotional flexibility, but study samples have not always looked at clinical groups (Kashdan & Rottenberg, 2010) and/or have examined symptoms rather than diagnosis (Coifman & Bonanno, 2010). Potentially, when taken to an extreme or combined with other vulnerabilities, emotional flexibility may become a liability (affective instability) and contribute to the onset, maintenance, or etiology of psychopathology. Indeed, it may be that psychopathology is characterized by the same types of emotional flexibility that are associated with adaptive functioning, but that flexibility does not work to one’s advantage in the context of psychiatric disorders. Finally, while some variability under stress appears to be useful (Ong, et al., 2017), it may be that stressful situations elicit *excessive* or uncontrolled interpersonal or affective variability in certain individuals. Research consistent with this interpretation has found that individuals with highly variable interpersonal behavior were less likely to demonstrate flexible give-and-take interactions with other individuals (Erickson, Newman, & Pincus, 2009). In terms of clinical implications, our findings are consistent with transdiagnostic models (Barlow et al., 2004) in that we find dysregulation in core elements of functioning may have relevance to multiple psychiatric disorders. Similar phenotypes of flexibility may underlie several disorders, yet understanding how much variability, the type of variability, and whether the variability is controlled are important to consider in future research.

Though not the focus of the current report, the present findings also offer some initial support for scoring the DOM and WRM subscales of the PAI using the flexibility algorithm described here. To our knowledge, this is the first report to combine these scales in this way and could represent a methodological innovation useful to future studies. Our findings

provide some preliminary validity for an index of interpersonal flexibility derived from the Dominance and Warmth subscales of the PAI. The association between this index and depressive disorders is consistent with prior theoretical work suggesting that deficits in interpersonal flexibility are predisposing and maintaining mechanisms in depression (Blatt, 2004; Coyne, 1976; Markowitz, 2003; Segrin, 2000) as well as with evidence-based treatments such as Interpersonal Psychotherapy for depression that seek to resolve interpersonal crises linked in depressive mood (Klerman, Weissman, Rounsaville, & Chevron, 1984; Markowitz, 2003). While the ability of a composite score of interpersonal flexibility to accurately predict responses to psychotherapy remains untested, preliminary findings from this study suggest further research in this area could be warranted. Fortunately, initial research is likely to be straightforward. For example, archived psychotherapy outcome studies that captured PAI data at baseline can be retrospectively scored for the composite flexibility score and compared with treatment outcome.

Although this report is strengthened by the inclusion of a large, community-based sample and use of a clinical diagnosis rather than symptoms, several limitations to the study should be considered. Most importantly, our measures of interpersonal flexibility and affective instability were cross-sectional and assessed using self-report, which represents an indirect measure of actual interpersonal flexibility or affective instability. Secondly, our primary outcome measure of psychiatric diagnosis was based on clinician referral diagnosis and is likely to introduce some questions about validity of diagnostic category. However, this approach has high ecological validity in the sense that it reflects standard practice in the medical community regarding diagnostic procedures. Furthermore, even if the present results were contested in terms of their associations with specific diagnoses, our findings would still suggest that clinicians are detecting and differentiating between these two phenotypes in their assessments and diagnostic conclusions. Third, prior work has been largely characterized by cross sectional approaches to studying a complex behavior defined by temporal variation (Ebner-Priemer, Eid, Kleindienst, Stabenow, & Trull, 2009), and ours is no exception. This limitation is important given that flexibility constructs are implicitly based on the assumption that individuals change over time and that context is an important factor influencing expressed variability. Direct behavioral observation, longitudinal, and experimental approaches are clearly needed. Relatedly, we could not rule out the potential influence of response bias; ideally, future studies will compare self-reported interpersonal styles with more proximal indicators of interpersonal relating obtained from daily diary assessment or momentary analysis. Finally, we did not consider the likely moderating effect of adaptive functioning in our analyses. Future studies should consider measuring adaptive factors that are likely of relevance, such as self-regulation, self-compassion, and social support.

In conclusion, findings from the current investigation suggest that interpersonal flexibility and affective instability are distinct constructs, some of which are associated with specific psychiatric disorders while others are not. Though it is likely that there is shared variance between these two phenotypes, further research into their associations with psychiatric disorders could serve to illuminate core dynamics of psychopathology.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Highlights

- Interpersonal flexibility deficits are associated with depressive disorders.
- Affective instability is associated with bipolar disorder and negatively associated with psychotic disorders.
- PAI subscales may be combined to generate an index of interpersonal flexibility

Table 1.

Zero-order Spearman's correlation coefficients among study variables.

Variable	1	2	3	4
1. Age	-			
2. Gender	-.02	-		
3. Flexibility	.07 [*]	.00	-	
4. PAI BOR-A	-.18 ^{**}	-.04	-.35 ^{**}	-
Primary Diagnostic Category				
5. Depression	.13 ^{**}	.01	-.06 [*]	.04
6. Bipolar	-.07 ^{**}	.01	-.01	.12 ^{**}
7. Anxiety	-.07 [*]	.05	.01	-.03
8. Psychotic	-.11 ^{**}	.02	-.04	-.04

Note.^{*}
 $p < .05$ ^{**}
 $p < .01$

PAI BOR-A = Affective Instability Subscale, Personality Assessment Inventory (PAI). Correlations between primary diagnostic categories not reported in this table as categories are mutually exclusive because of binary yes/no coding scheme.

Table 2.

Hierarchical regression models predicting psychiatric disorders with interpersonal flexibility and affective instability, controlling for gender and age in all models.

Outcome	Predictor	<i>B</i>	Std. Err	<i>p</i>	<i>Odds Ratio</i>	<i>95% C.I.</i>
Depression						
Step 0	Age	.02	.00	<.001	1.02	1.01-1.03
	Gender	-.07	.13	.560	.93	.73-1.19
	Co-morbidity	-.12	.08	.152	.90	.76-1.04
Step 1	Flexibility	-.09	.04	.011	.92	.86-.98
Step 2	Flexibility	-.07	.04	.058	.93	.87-1.00
	Instability	.01	.01	.122	1.01	1.00-1.02
Bipolar						
Step 0	Age	-.01	.01	.240	.99	.98-1.01
	Gender	-.06	.18	.716	.94	.67-1.32
	Co-morbidity	.04	.11	.712	1.04	.83-1.31
Step 1	Flexibility	-.02	.05	.629	.98	.89-1.07
Step 2	Flexibility	.04	.05	.458	1.04	.94-1.15
	Instability	.03	.01	<.001	1.03	1.01-1.04
Anxiety						
Step 0	Age	-.01	.01	.214	.99	.98-1.01
	Gender	-.22	.19	.240	.80	.55-1.16
	Co-morbidity	.23	.12	.065	1.26	.99-1.60
Step 1	Flexibility	.04	.05	.458	1.04	.94-1.15
Step 2	Flexibility	.02	.06	.790	1.02	.91-1.13
	Instability	-.01	.01	.216	.99	.98-1.01
Psychotic						
Step 0	Age	-.05	.01	<.001	.95	.93-.97
	Gender	-.15	.29	.611	.86	.49-1.53
	Co-morbidity	-.60	.20	.003	.55	.37-.81
Step 1	Flexibility	-.08	.08	.281	.92	.79-1.07
Step 2	Flexibility	-.15	.08	.074	.86	.73-1.02
	Instability	-.03	.01	.028	.97	.95-1.00

Note: significant p-values are highlighted in bold text.