Summer 2010

Conceptualization of psychosocial functioning: understanding structure and relations with personality and psychopathology

Eunyoe Ro
University of Iowa

Follow this and additional works at: https://ir.uiowa.edu/etd

Part of the Psychology Commons

CONCEPTUALIZATION OF PSYCHOSOCIAL FUNCTIONING: UNDERSTANDING STRUCTURE AND RELATIONS WITH PERSONALITY AND PSYCHOPATHOLOGY

by

Eunyoe Ro

An Abstract
Of a thesis submitted in partial fulfillment
of the requirements for the Doctor of
Philosophy degree in Psychology
in the Graduate College of
The University of Iowa

July 2010

Thesis Supervisor: Professor Lee Anna Clark

ABSTRACT

Psychosocial functioning is a broad construct that encompasses a wide range of behaviors. Impairment in one or more areas of functioning is commonly observed in psychiatric patients. Moreover, an enduring, rigid pattern of maladaptive behaviors (e.g., interpersonal conflict) are frequent manifestations of personality pathology. The purpose of this study was to understand this comprehensive, yet underexamined, construct of psychosocial functioning by studying the construct's structure and associations with external correlates (e.g., personality traits and pathology, mood symptoms). The study was conducted in two phases. In Phase 1 study, 429 community residents (student N = 218; community sample N = 211) were recruited and administered eight psychosocial functioning measures sampled from three psychosocial functioning domains: Daily functioning measures typically used in Axis I disorders, personality functioning measures developed for use with Axis II disorder, and quality of life/ satisfaction measures. Personality traits—specifically the big five personality traits (Neuroticism, Extraversion, Agreeableness, Conscientiousness, and Openness)—and mood/affect measures also were administered to understand their associations with psychosocial functioning scales. Results suggested that psychosocial functioning could be understood as having a three-factor structure: Positive General Functioning, Poor Personality Functioning, and Poor Basic Functioning. When four of the five personality traits were added as variables (Openness excluded), a four-factor structure emerged—Positive General Functioning, Poor Basic Functioning, Internalizing Dysfunction, and Externalizing Dysfunction—with personality traits strong markers of the psychosocial functioning factors with the exception of Basic Functioning. In Phase 2, psychiatric outpatients were recruited

(*N*=181) and were administered psychosocial functioning scales that had been refined by factor analyzing the Phase 1 data, and also personality trait measures focused on the more extreme, typically maladaptive range of the dimensions and personality pathology measures based on the *Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition* (*DSM-IV;* American Psychiatric Association, 1994) personality disorders. The three-factor solution was replicated in this patient group. In a hierarchical regression, psychosocial functioning explained significant additional variance in predicting *DSM-IV* personality pathology after controlling for abnormal-range personality traits. In sum, the study revealed a multidimensional structure of psychosocial functioning that is closely linked to personality and psychopathology dimensions.

Abstract Approved: _____
Thesis Supervisor

_____
Title and Department

_____
Date

CONCEPTUALIZATION OF PSYCHOSOCIAL FUNCTIONING: UNDERSTANDING STRUCTURE AND RELATIONS WITH PERSONALITY AND PSYCHOPATHOLOGY

by

Eunyoe Ro

A thesis submitted in partial fulfillment
of the requirements for the Doctor of
Philosophy degree in Psychology
in the Graduate College of
The University of Iowa

July 2010

Thesis Supervisor: Professor Lee Anna Clark

Graduate College
The University of Iowa
Iowa City, Iowa

CERTIFICATE OF APPROVAL

PH.D. THESIS

This is to certify that the Ph.D. thesis of

Eunyoe Ro

has been approved by the Examining Committee
for the thesis requirement for the Doctor of Philosophy
degree in Psychology at the July 2010 graduation.

Thesis Committee: _____
Lee Anna Clark, Thesis Supervisor

_____
James N. Marchman

_____
Kristian E. Markon

_____
Carolyn L. Turvey

_____
David B. Watson

Above all, don’t fear difficult moments. The best comes from them.
Rita Levi-Montalcini

ACKNOWLEDGMENTS

This project would not have existed without the help of my mentors. My first and foremost gratitude goes to my advisor, Lee Anna Clark. Ever since she has graciously accepted me into her lab, she has been the source of intellectual stimulation and support. This project could not have been completed without her encouragement and enthusiasm for our work together. Thank you so much, Lee Anna. I would also like to thank James Marchman for being an inspirational teacher. My gratitude also extends to David Watson for all his teaching, knowledge, and patience. I hope to be a good mentor to my future students as these amazing teachers were to me.

I also would like to thank my classmates – Aliza, Lilian, Waki, Kim, and Liz – for their support. I could not have survived graduate school without these amazingly talented, warm friends. You are the best! I would like to extend my thanks to the Clark lab research assistants Vicki, Nicole, Stephanie, Jon, Erin, Suzie, Megan, Nam, and Kelly for their help with the project. Best wishes to you all. Finally, my hearty gratitude goes to my family: my parents Youngmoo Ro and Okgoo Rhee, as well as my husband and daughter, Jeahong and Daboh. They have been an unwavering source of love and support. I thank them for accompanying me through this journey and making every minute of this privileged experience worthwhile.

ABSTRACT

Psychosocial functioning is a broad construct that encompasses a wide range of behaviors. Impairment in one or more areas of functioning is commonly observed in psychiatric patients. Moreover, an enduring, rigid pattern of maladaptive behaviors (e.g., interpersonal conflict) are frequent manifestations of personality pathology. The purpose of this study was to understand this comprehensive, yet underexamined, construct of psychosocial functioning by studying the construct's structure and associations with external correlates (e.g., personality traits and pathology, mood symptoms). The study was conducted in two phases. In Phase 1 study, 429 community residents (student N = 218; community sample N = 211) were recruited and administered eight psychosocial functioning measures sampled from three psychosocial functioning domains: Daily functioning measures typically used in Axis I disorders, personality functioning measures developed for use with Axis II disorder, and quality of life/ satisfaction measures. Personality traits—specifically the big five personality traits (Neuroticism, Extraversion, Agreeableness, Conscientiousness, and Openness)—and mood/affect measures also were administered to understand their associations with psychosocial functioning scales. Results suggested that psychosocial functioning could be understood as having a three-factor structure: Positive General Functioning, Poor Personality Functioning, and Poor Basic Functioning. When four of the five personality traits were added as variables (Openness excluded), a four-factor structure emerged—Positive General Functioning, Poor Basic Functioning, Internalizing Dysfunction, and Externalizing Dysfunction—with personality traits strong markers of the psychosocial functioning factors with the exception of Basic Functioning. In Phase 2, psychiatric outpatients were recruited

(*N*=181) and were administered psychosocial functioning scales that had been refined by factor analyzing the Phase 1 data, and also personality trait measures focused on the more extreme, typically maladaptive range of the dimensions and personality pathology measures based on the *Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition* (*DSM-IV;* American Psychiatric Association, 1994) personality disorders. The three-factor solution was replicated in this patient group. In a hierarchical regression, psychosocial functioning explained significant additional variance in predicting *DSM-IV* personality pathology after controlling for abnormal-range personality traits. In sum, the study revealed a multidimensional structure of psychosocial functioning that is closely linked to personality and psychopathology dimensions.

TABLE OF CONTENTS

LIST OF TABLES

Table

CHAPTER I

INTRODUCTION

According to the *Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition* (*DSM-IV:* American Psychiatric Association, 1994), psychopathology is conceptualized as "a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom" (p. xxi)[i]. Nonetheless, research on symptoms and functional impairment has hardly been a balanced enterprise. Rather, research endeavors, especially in the area of psychopathology classification, have been focused primarily on symptoms. The interplay of symptoms and impaired functioning in psychopathological diagnosis rarely has been studied carefully.

Recent activity heading towards the *DSM-5* has revitalized interest in evaluating individuals' functioning levels, and has become a major impetus for further research regarding assessment of daily functioning and psychopathology / diagnosis. Most notably, personality disorder (PD) research is one of the leading areas in which accurate assessment of functioning is emerging as a critical component, as the field considers moving toward incorporating trait and functional impairment dimensions in PD diagnosis. However, empirical examination of diagnostic issues is still a challenge because the field lacks a psychometrically strong, multidimensional assessment tool for psychosocial functioning. The Global Assessment of Functioning (GAF; American Psychiatric Association, 1987), for example, is the main psychosocial functioning

assessment tool of the *DSM-IV*, constituting Axis V. The GAF, however, is limited as a measure of individuals' functioning for a number of reasons (a detailed review is provided on pp 21 – 25), including that it is designed to consider both psychiatric symptom severity and level of dysfunction in a single rating system.

Thus, although the assessment of psychosocial functioning has been part of the diagnostic system for several decades, the field still faces important tasks in this domain, including, first, close examination of existing functioning measures to understand both their properties and limitations. Second, as the example of the GAF indicates, developing methods to assess this construct reliably and validly remains a significant task for the future. Third, we need to examine relations between psychosocial functioning and psychopathological symptom criteria in order to determine each component's contribution to diagnosis. Starting this third task within the realm of PD seems promising: As Rounsaville and colleagues (2002) stated, "There is a clear need for dimensional models to be developed and their utility compared to that of existing typologies in one or more limited fields, such as personality. If a dimensional system performs well and is acceptable to clinicians, it might be appropriate to explore dimensional approaches in other domains" (p.13).

This introduction covers three broad topics in order to lay the groundwork for the proposed project. First, literature in the area of personality and functioning is reviewed. Second, approaches to dimensional diagnosis of PD and how the assessment of functioning can be incorporated into the diagnostic system are discussed. Finally, existing measures of functioning are comprehensively reviewed, leading to an overview of the proposed study.

Personality and Functioning

Personality and functioning clearly are intimately related constructs – after all, one may state that our personality plays a big role in explaining why we function in a certain manner throughout life. Two major lines of research summarize personality/PD and functioning relations, which has been well captured by Gordon Allport (1937). Allport (1937) stated and Cantor (1990) expanded upon the notion that personality "*is*" something and personality also "*does*" something. From these two approaches stem two different methods of conceptualizing relations between personality and functioning. If one focuses first on personality traits – the "personality is" aspect – one is then in a position to develop adjunctively an '*adaptive functioning*' measure that is (quasi-)independent of personality traits. That is, such a functioning measure would not be '*innately*' related to personality traits in terms of its content. In contrast, focusing from the start on how one functions – on the "personality does" aspect – will lead to measures that assess functioning innately correlated with personality traits (i.e., a '*personality functioning*' measure). Research findings from each view are reviewed below.

Separate Assessment of Personality and Functioning

From the "personality is…" perspective, relations between adaptive functioning and PD have been studied most extensively in the Collaborative Longitudinal Personality Disorder Study (CLPS: Skodol, Gunderson et al., 2005). In the CLPS, a large sample (baseline *N*=733), comprised of four PDs (schizotypal, borderline, avoidant, obsessive-compulsive) and patients with major depressive disorder without a PD diagnosis was followed longitudinally. The study included two adaptive psychosocial functioning measures: the Longitudinal Interval Follow-Up Evaluation (LIFE: Keller et al., 1987) and

the GAF. Results of this separate examination of adaptive functioning and PD symptomatology indicated, unexpectedly, a fairly independent trajectory of functioning level and PD diagnosis. Although PD diagnoses proved to be surprisingly unstable and showed moderate to strong remission over 2 years, the level of psychosocial functioning remained stable and showed little improvement from baseline to 2 years (e.g., Skodol et al., 2004; Skodol, Oldham et al., 2005). A 4-year follow-up report yielded the same results–little change in functioning despite continued modest decreases in criterion levels (Skodol, 2007).

Peter Tyrer and colleagues have conducted several studies examining relations among psychopathology, personality disturbance, and social functioning. For example, Nur, Tyrer, Merson, and Johnson (2004) recruited participants from psychiatric emergency settings and conducted longitudinal assessment of these patients through initial assessment, and 2, 4 and 12 weeks post the initial visit. Personality disturbance was assessed using the Personality Assessment Schedule (PAS: Tyrer & Alexander, 1988), psychopathology was assessed by the Comprehensive Psychopathological Rating Scale (Åsberg, Montgomery, Perris, Schalling, & Sedvall, 1978), and adaptive social functioning was assessed by the Social Functioning Questionnaire (Tyrer et al., 2005). Path analytic results indicated that the 2-week social functioning level was equally well predicted by the level of psychopathology and personality traits at baseline. Interestingly, however, at the 4-week follow-up, social functioning was predicted better by baseline personality traits than psychopathology. Further, in a sample of 210 patients with internalizing disorders (e.g., dysthymic disorder, generalized anxiety disorder, and panic disorder), Seivewright, Tyrer, and Johnson (2004) found that personality problems at

baseline significantly predicted social dysfunction at 12-year follow-up.

In sum, these studies suggest that poor social functioning may be more stable than a PD diagnosis, and that baseline personality traits in the maladaptive range are significantly related to long-term social dysfunction. Despite separate assessment of psychosocial functioning and personality, these results indicate not only that they are strongly related, but also that social dysfunction clearly is an—if not the—essential component of PD.

However, a major caveat regarding the measurement of adaptive functioning in these studies is in order: Specifically, depending on the measure, it is confounded with the assessment of personality traits to varying degrees. For example, many items in these measures inadvertently confound personality trait and psychopathology simply by using trait (e.g., negative emotionality) terms in the items (e.g., "*not interested* in going to work," or "I feel *lonely* and *isolated* from other people").

With these limitations in mind, Hill and colleagues conducted a study in which they separated trait abnormality and social dysfunction from a personality trait measure (i.e., PAS). The researchers modified the PAS (M-PAS) by deleting social functioning items and retaining only trait items. Nevertheless, correlations between personality and social functioning assessed using the Adult Personality Functioning Assessment interview (Hill, Harrington, Fudge, Rutter, & Pickles, 1989) were similar (around .60 for patient reports) regardless of whether they used the PAS or the M-PAS. The authors concluded that as trait abnormalities become more extreme in social functioning contexts, personality traits and maladaptive functioning may be too similar to be considered separate constructs. Further, the authors went so far as to suggest that the distinction

between traits at maladaptive levels and social functioning impairment may be artificial. These conclusions, however, need to be understood in the context that (1) the manuscript does not describe which and how many items were removed from the PAS to form the M-PAS, and (2) the correlations were in the .60 range (rather than .70 ~ .80 range). No other published studies exist that deliberately separate personality traits and adaptive functioning at the item level. Therefore, the phenomenon needs replication before we can conclude definitively that separating personality traits and maladaptive functioning is artificial.

Unified Assessment of Traits and Functioning

The second line of research in personality functioning is the "personality does…" approach, where personality traits and functioning are hypothesized to be related inherently conceptually, and practically are indistinguishable. Several researchers interested in functioning and personality have developed measures proposing them as "*personality* functioning" measures rather than "*adaptive* functioning" measures. These measures assess individuals' functioning in the context of personality traits and thus incorporate questions about trait and functioning behavior within items. Specifically, Gordon Parker developed a "Disordered Personality and Functioning" assessment tool (Parker et al., 2004), and Roel Verheul and colleagues have proposed a measure of "Severity Indices of Personality Problems (Verheul et al., 2008)." These two measures will be discussed in more detail when the existing measures of functioning are reviewed, and therefore are not elaborated on in this section.

The personality "does" perspective is supported by research findings in which social dysfunction has been found to be a key underlying substrate of PD. For example,

in developing the Iowa Personality Disorder Scale, a PD screening interview, Langbehn and colleagues (1999) reported that social difficulty, especially in the form of avoidance, was a common dysfunctional theme among PD patients. Parker and Hadzi-Pavlovic (2001) also found that disordered functioning (e.g., low cooperativeness, inflexibility) was the common denominator across various personality styles (e.g., avoidant style, histrionic style) thus leading to associations among purportedly independent PD types. These findings are interesting because the dysfunctional commonalities across PD types emerged even without the researchers making an effort to assess functioning separately.

Adaptive Functioning or Personality Functioning?

In sum, both lines of research–that is, those focused on what personality *is* and what personality *does*–indicate that personality and functioning are closely related constructs. Given such findings, which would be a better way to assess individuals' functioning level – the "adaptive functioning" approach, the "personality functioning" approach, or perhaps both?

From the "adaptive functioning" perspective, one would assess various functioning domains (e.g., work, relationship) by using items that are not innately related to personality at the content level. Such sets of items are not difficult to find (e.g., How many days of work did you miss? How many arguments did you have with your partner?), but one anticipated problem is that such measures may be more focused only on overt behaviors, which may lead to an overly restricted assessment of functional level, by omitting any assessment of respondents' evaluation (e.g., affective reactions, satisfaction) to their functioning. On the other hand, from the "personality functioning" perspective (i.e., "personality does" aspect), functional level assessment may not be as

restricted, because functioning and personality constructs will be correlated inherently, so items necessarily will reflect both functioning and personality at the content level. The difficulty inherent in this approach is determining the nature of an ideal "personality functioning" measure. How would we know that the items appropriately blended traits and functioning? What would be an ideal item to assess "personality functioning"? These are important questions that have not yet been answered and that require both further theoretical consideration and empirical investigation.

The dilemma is that on the one hand, personality traits and affect or mood may be considered unnecessary or less relevant dimensions of functioning (i.e., the "personality is" approach), whereas on the other hand, personality traits and affect/ mood may be considered legitimate components of functioning, so thinking only about behavioral aspects of functioning may overly restrict the construct (i.e., the "personality does" approach). However, the field currently lacks the empirical evidence needed to settle *a priori* whether the "adaptive functioning" or the "personality functioning" approach is preferable. Thus, it is impossible to separate out personality traits and affect/ mood content from behavioral content in the blended measures without risking the possibility of overly restricting their content to purely behavioral items because it has not been determined whether it is theoretically and conceptually appropriate to do so. Consequently, as a starting point, it seems to make the most sense to incorporate both types of measures and to test empirically to what extent they are associated—or confounded—with personality traits and psychopathology symptoms.

Diagnosis of PD and Incorporation of Functioning

Psychosocial functioning has emerged as an important construct in part because of scientific interest in understanding the relations between functioning and personality. In addition to such scientific inquiries, however, there also exists a practical issue concerning PD classification. That is, improving PD diagnosis by incorporating the research findings in both personality traits and psychosocial functioning would be a good exemplar of the National Institute of Mental Health's vision with regards to collaboration between scientific research and clinical practice (Widiger, 2005).

The existing current categorical diagnostic system has been criticized widely for such problems as (1) excessive diagnostic co-occurrence, (2) lack of diagnostic stability, (3) within-diagnosis heterogeneity and (4) poor diagnostic agreement among PD instruments (for reviews, see Clark, 2007; Clark, Livesley, & Morey, 1997; Trull & Durrett, 2005; Widiger, 2005). Dimensional approaches have been discussed as the alternative for two decades. However, further examination and integration of existing dimensional models are needed before any particular dimensional model is incorporated into the official diagnostic system.

Widiger and Simonsen (2005) summarized existing models of dimensional diagnostic approaches and described 18 extant models which fit into four broad types. The first type of model simply provides dimensional profiles using the existing *DSM-IV* categorical diagnostic criteria. This type of dimensional approach was suggested by Oldham and Skodol (2000) and was used in the Collaborative Longitudinal Personality Disorder Study (CLPS; Skodol, Gunderson et al, 2005). This model provides a smooth transition from the current categorical system to a dimensional approach. However, it is

founded upon existing categorical conceptualization of PDs, which is problematic for a number of reasons (e.g., continued high co-occurrence among PDs).

The second and third model types both focus on reorganizing traits to elucidate underlying PD dimensions. These two approaches differ in the source from which the traits are derived and their focus of assessment: one approach is based in using traits derived from existing PD diagnostic criteria and is focused on assessing the typically maladaptive range, whereas the other derives traits from the normal personality literature and focuses on assessing the adaptive range of the trait dimensions. The Schedule for Nonadaptive and Adaptive Personality (SNAP: Clark, Simms, Wu, & Casillas, in press) and the Five-Factor Model (FFM) measures are representative of these respective approaches. The FFM measures (e.g., Big Five Inventory; John & Srivastava, 1999) assess five basic personality dimensions – Neuroticism (N), Extraversion (E), Agreeableness (A), Conscientiousness (C), and Openness to experience (O) – and posit that given personality traits span a continuum from normal to abnormal, these trait dimensions can explain abnormal-range personality. The SNAP-2 similarly captures broad three temperament dimensions (i.e., Negative Temperament, Positive Temperament, and Disinhibition) each with component lower order traits but targets assessment of the abnormal end of the continua, which are more relevant to personality pathology. As Widiger (1998) stated, "personality disorders are not qualitatively distinct from normal personality functioning, they are simply maladaptive, extreme variants of common personality traits" (p. 865), so these two approaches may be considered complementary rather than distinct. Evidence that these approaches are complementary includes that the FFM can be used to describe the *DSM-IV* PDs (see Saulsman & Page,

2004, for a review), and the facets of the most frequently used measure of the FFM, the NEO Personality Inventory-Revised (NEO PI-R; Costa & McCrae, 1985) overlap substantially with the SNAP scales (Reynolds & Clark, 2001). However, with a few notable exceptions (e.g., Haigler & Widiger, 2001; Trull et al., 1998), existing measures of the FFM are not sufficient to characterize PD, because they do not assess the more extreme, typically maladaptive end of its component traits, and thus cannot describe completely personality disorder as currently conceptualized (e.g., Morey, Gunderson, Quigley, & Lyons, 2000; Morey, Gunderson, Quigley, & Shea, 2002; Saulsman & Page, 2003).

The final type of dimensional model articulated by Widiger and Simonsen (2005) conceptualizes Axes I and II along continuua and integrates these two domains using a set of spectra (e.g., a spectrum from avoidant PD to social phobia, a spectrum from schizotypal PD to schizophrenia). Although this approach does not have a representative measure, it has gained wide theoretical attention.

With these advances of dimensional approaches to PD diagnosis, interest in the evaluation of functioning also has emerged as critical. Dissatisfaction with and scientific limitations of the current diagnostic system has led researchers to call for an enhanced, independent method of evaluating psychosocial dysfunction and personality traits. Consequently, in an effort to incorporate functioning into the diagnosis of PD, several theoretical models have been proposed.

One dominant model is the “two-pronged model” where social functioning and personality traits are assessed independently and considered as mutually contributing parts of the diagnosis. For example, Livesley and colleagues (1994) proposed that the

degree of impaired psychosocial functioning should be assessed and contribute to a PD diagnosis, which would be placed on Axis I. Axis II then would be rated for the underlying personality traits, both those that are maladaptive and give form to the Axis I PD diagnosis, and those that are more adaptive and thus available as internal resources in treatment.

Similarly, Parker and colleagues (Parker et al., 2002, 2004) suggested a multi-axial diagnosis of PD incorporating assessment of both disordered personality functioning and personality style (e.g., histrionic personality style, avoidant personality style). He implied that PD diagnosis based on disordered personality functioning will be a more efficient way to detect PD due to limitations in a personality style-dependent diagnosis (e.g., style / trait maladaptivity depends on environmental context and situation). However, the authors failed to mention that the same limitations may apply to disordered personality functioning. For example, the two higher order disordered personality functioning factors they identified (Parker et al., 2004)—non-coping and non-cooperativeness—are also constrained by these limitations (e.g., a high degree of non-cooperativeness may not always be dysfunctional, but will depend on the context).

Widiger, Costa, and McCrae (2002) also incorporated evaluation of impaired social and interpersonal functioning along with comprehensive assessment of personality using existing FFM measures in suggesting a 4-step PD diagnostic procedure using the FFM: (1) assessment of personality traits (both higher and lower order FFM traits), (2) identification of functioning impairment related to step 1's extreme traits, (3) determining whether the dysfunction and distress level are clinically significant (e.g., using the Global Assessment of Functioning [GAF; American Psychiatric Association, 1987] scores), and

(4) matching the personality trait profile to the diagnostic constructs.

Review of Existing Measures of Functioning

It is obvious from the above review that "psychosocial functioning" is a broad construct that requires comprehensive assessment. Existing definitions of social functioning tend to be fairly general stating, for example, that functioning represents an interaction between the individual and the social environment (e.g., Paykel, 1999; Weissman, 1975). Such high level of abstraction is understandable on the one hand, but is problematic on the other, because it does not provide much guidance as to what constitute relevant domains. As a result, the field is overflowing with measures that are related to the assessment of daily functioning in varying degrees, but still lacks a measure of functioning that is comprehensive and psychometrically strong, and is based on a clear theoretical, conceptual understanding of the construct and its structure.

Generally speaking, existing measures of functioning can be divided into those typically used in studies relevant to Axis I psychopathology versus those developed specifically for PD research. Examples of the former include the GAF (American Psychiatric Association, 1987), the Social Adjustment Scale (SAS; Weissman & Bothwell, 1976; Weissman, Paykel, Siegel, & Klerman, 1971), the Longitudinal Interval Follow-up Evaluation-Range of Impaired Functioning Tool (LIFE-RIFT; Leon et al., 1999), the Social Functioning Questionnaire (SFQ; Tyrer et al., 2005), and the World Health Organization Psychiatric Disability Assessment Schedule-II (WHO/DAS II; WHO, 2000). Examples of the latter include the Adult Personality Functioning Assessment Measure (APFA; Hill et al., 1989), Gordon Parker's measure of disordered personality and functioning (Parker et al., 2004), and the Severity Indices of Personality

Problems (SIPP; Verheul et al., 2008).

From another perspective, measures also can be separated into those examining daily behaviors per se versus those examining the quality of these activities. Examples of the former measures largely overlap with aforementioned lists, whereas the latter type include the Medical Outcome Study (MOS) 36-item Short-Form Health Survey (SF-36; Ware & Sherbourne, 1992), Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), and Scales of Psychological Well-being (SPWB; Ryff, 1989). Below several representative measures of functioning in each of these domains are reviewed.

Functioning Assessment in Axis I Disorder

Global Assessment of Functioning (GAF: American Psychiatric Association, 1987). The *DSM* incorporated the GAF into its multiaxial system as Axis V beginning with the *DSM-III-R* (APA, 1987), so the GAF became one of the most well-known and widely used measures of global functioning. Functioning is broadly defined and assessed in the GAF, incorporating the domains of social/interpersonal, occupational, psychological (e.g., satisfaction), and psychiatric (i.e., symptoms) functioning into a single rating scale ranging from 100 (highest level of functioning) to 1 (lowest level of functioning; 0 is given if there is insufficient information to score). A written description is provided for each 10-point block to guide raters. *DSM* instructions are to rate patients "picking a single value that best reflects the individual's overall level of functioning"[ii] for the "current period [which] is operationalized as the lowest level of functioning in the past week." However, other time frames or methods may be used (e.g., the highest level of functioning for at least a few months during the past year if needed, for example, in a

brief follow-up interview with a patient in clinical settings). The rating typically is made shortly after a clinical interview with the patient.

The strength of the GAF is that it is short and accessible: There is only one item to rate, and it already is incorporated into the *DSM*. The GAF is used frequently as an outcome measure in treatment research studies and in studies with severely dysfunctional patient groups, such as those with schizophrenia (e.g., Sim, Chua, Chan, Mahendran, & Chong, 2006), bipolar disorder (e.g., Pini et al., 2003), antidepressant-refractory depressive disorders (e.g., Inoue et al., 2006), geriatric patients (e.g., Whitney, Kunik, Molinari, Lopez, & Karner, 2004), or severely mentally ill patients in residential care (e.g., de Girolamo et al., 2005).

However, the GAF also has several critical shortcomings. First, it is designed to consider both psychiatric symptom severity and functional level together in a single rating system. For example, a score in the 41-50 range indicates "serious symptoms OR any serious impairment[iii] in social, occupational, or school functioning" (emphasis in original). Thus, the GAF confounds assessment of psychiatric symptoms with that of social and occupational dysfunction, a problem that has been raised consistently over the past decade (e.g., Kennedy & Foti, 2003; Moos, Nichols, & Moos, 2002; Piersma & Boes, 1995). Bacon, Collins, and Plake (2002) asked clinicians to list the top three reasons behind their GAF ratings of patients and found that they were influenced strongly by symptom severity and not necessarily by adaptive functioning level.

A second problem of the GAF is unreliability. Reported intra-class correlation coefficients (ICC) for the GAF vary widely from, for example, .28 in a sample of learning-disorder patients (Oliver, Cooray, Tyrer, & Cicchetti, 2003) to .86 in a geriatric

patient study (Hildebrand, McCann, Nelson, & Wass, 2003). Large measurement error when assessing intraindividual change in functioning also has been reported (Soderberg, Tungstrom, & Armelius, 2005). These results are not unexpected when we examine the descriptors provided for scoring. For example, what constitutes "serious symptoms" and "serious impairment" are not clearly defined and therefore are subject to individual raters' interpretations.

Finally, the GAF explicitly instructs users to rate patients' impairment "with respect only to psychological, social, and occupational functioning and not that due to physical (or environmental) limitations" (APA, 1994). Yet, how to determine empirically—or even whether it is possible to determine empirically—the *cause* of an individual's impairment has not been established, let alone whether raters can distinguish accurately between impairment caused by psychological versus physical and environmental factors. Moreover, the importance of understanding disability caused by the *overall conditions* of the interviewee without regard to etiology has been raised (World Health Organization, 2000), so whether the *DSM* instructions in this regard are optimal is debatable.

The Social and Occupational Function Assessment Scale (SOFAS; American Psychiatric Association, 1994; Goldman, Skodol, & Lave, 1992) has been proposed as an alternative to the GAF to address at least some of these limitations. The SOFAS differs from the GAF in two major ways: (1) symptom descriptors have been eliminated so that only social and occupational functioning are measured, and (2) functioning due to overall illness (both psychological and physical) is to be considered, rather than only that due to psychological conditions. The SOFAS has been shown to yield varying interrater

reliability coefficients ranging from fair (i.e, intraclass correlation = .57; Roy-Byrne, Dagadakis, Unutzer, & Ries, 1996) to very good (i.e., intraclass correlations over .89; Hay, Katsikitis, Begg, Da Costa, & Blumenfeld, 2003; Hilsenroth et al., 2000).

Evidence regarding the SOFAS' validity also is variable. Hilsenroth and colleagues (2000) reported, not surprisingly, that the GAF correlated more highly than the SOFAS with a self-report symptom measure, whereas the SOFAS related more strongly to measures of social adjustment (i.e., Social Adjusment Scale; Weissman & Bothwell, 1976) and interpersonal problems (i.e., Inventory of Interpersonal Problems; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). Similarly, in 196 mental health outpatients, Patterson and Lee (1995) found that scores on the GAF-Modified scale (which is virtually identical to the SOFAS) scores were explained most by "the ability to use transportation (30.4%)" (p. 1387, Table 1), followed by other functioning variables such as medication compliance and current living situation, which explained 6.5% and 3.6 % of the variance, respectively. In this study, Axis I and II diagnoses each explained less than 2% of the variance.

In other studies, however, the SOFAS related primarily to psychiatric symptoms rather than other domains of adjustment. For example, Eisen and colleagues (2006) assessed functional levels in obsessive-compulsive disorder patients and conducted a hierarchical regression with the SOFAS as the dependent variable, and (in order of entry into the model) age, marital status, education level, illness duration, obsessions, then compulsions from the Yale-Brown Obsessive-Compulsive Scale (YBOCS; Goodman et al., 1989), cognitive beliefs, and depression symptomatology as independent variables. YBOCS obsessions accounted for 43% incremental variance, whereas marital satisfaction

and depressive symptoms each contributed a significant 4% additional variance in predicting SOFAS scores. That is, depressive symptoms, despite being included in the final step, still predicted significant incremental variance. That psychopathology symptoms are significant predictors of psychosocial functioning is not surprising. However, that symptoms accounted incrementally for nearly half the SOFAS' variance raises the possibility that the ratings still may be confounded with symptoms, beyond the "true" level of relation between functioning and psychopathology, although it is possible that the inherent overlap is, in fact, this strong. Improving upon some limitations of the SOFAS, such as its vague descriptors (e.g., "serious impairment," "moderate difficulty") which give raters little guidance on the basis for scoring, may be a good starting point to improve the psychometrics of the measure and thus contribute to understanding the true strength of relations between functioning and psychopathology.

Longitudinal Interval Follow-Up Evaluation (LIFE: Keller et al., 1987; Shapiro & Keller, 1979). The LIFE is a semi-structured comprehensive interview measure developed to examine the long-term course of psychiatric disorders. It is designed to track changes in psychopathology-related symptoms, nonpsychiatric medical illness, and psychosocial functioning (both global and specific) meticulously over the course of 6 months. The interview provides detailed information on relapse to, or recovery from, a particular disorder, and is well-suited to investigate research questions targeted at understanding the trajectory of a disorder.

Information is obtained primarily from the patient, but interviewers are expected also to review past interviews and clinical records, and to talk with other informants (e.g., spouse, friends, relatives, therapists) when available. The symptoms for each

psychological disorder with which an individual is diagnosed are assessed weekly for the past 26 weeks, retrospectively, but using anchor dates (e.g., holidays, birthdays) to facilitate recall. Similarly, psychosocial functioning is assessed monthly for the past 6 months.

The psychosocial functioning section of the LIFE includes specific domains such as work, familial and interpersonal relationships, extrafamilial friendships, sexual functioning, recreation, satisfaction, and global social adjustment. Specific probes are provided for each domain (e.g., "Have you had arguments or conflicts with your partner?" "How often do these occasions arise?" "How do you and your husband deal with disagreements?" and "How have you felt about your partner?") to assess the occurrence and frequency of problematic events, quality of interactions, and subjective reactions of the patient. After the interview, an overall rating (0 – 6 rating scale) is made for each specific domain. The LIFE also uses the GAS (Global Assessment Scale; Endicott, Spitzer, Fleiss, & Cohen, 1976), which is an earlier version of the GAF to assess overall level of functioning at the end of the interview. Keller et al. (1987) reported ICCs for the psychosocial functioning domains ranging from .52 to .98.

The LIFE is a complex, lengthy, and time-consuming (i.e., administration may require 2-4 hours) interview tool, for which at least moderate amount of training is required and, perhaps in part for this reason, validity evidence on the psychosocial functioning section of the LIFE is limited. However, out of the need for a shorter measure that focuses on the functioning aspect of the LIFE, the LIFE-RIFT (Leon et al., 1999) was developed, and its validity examined in several studies. The LIFE-RIFT is a semi-structured interview measure assessing four domains (work, interpersonal

relationships, recreation, overall satisfaction) and yields a total scale score. The LIFE-RIFT is identical to the LIFE psychosocial functioning section except for a few modifications. First, two of the LIFE domains (e.g., Extrafamilial friendship, Sexual functioning) were merged into other relevant sections, resulting in four rather than six domains. Second, the total scale score is derived by summing the scores for the four domains. When there is more than one rating per domain (e.g., work consists of employment, housework, and school [for students]), the worst level of functioning is the domain score. The LIFE-RIFT interview is comprised of 9 scales—Employment, Housework, School Work, Relationship with Spouse, Relationship with Children, Relationship with Relatives, Relationship with Friends, Leisure, and Satisfaction—each requiring no longer than a 5-minute interview to complete (Leon et al, 1999). Therefore, depending on the interviewee's demographic status (e.g., marital status, work status, whether the person has children), the interview takes a maximum of approximately 45 minutes.

Leon et al. (1999) administered the LIFE-RIFT to patients with major depressive disorder participating in the NIMH Collaborative Depression Study at four time points (6, 12, 18, and 24 months after study intake) and reported psychometric properties for the measure: (1) Cronbach's alpha coefficients for the 4 ratings ranged from .81 to .83, (2) the four items best fit a one-factor model of general functional impairment, and (3) impaired functioning was negatively associated with recovery and positively associated with recurrence. Additional support for a one-factor solution was provided by a confirmatory factor analysis by Leon and colleagues (2000) in a bipolar I disorder sample across 4 different assessment points (6, 12, 18 and 24 months after intake), with strong

item-factor loadings (median = .75). The overall ICC for the LIFE-RIFT total score is reported as high (.94; Leon et al., 1999; Leon et al., 2000). At the item level as well, the ICCs were generally high: .90 (Work), .77 (Interpersonal), .85 (Satisfaction), and .91 (Recreation) (Leon et al., 2000).

Eisen and colleages (2006) used the LIFE-RIFT, SOFAS (American Psychological Association, 1994), Medical Outcome Study (MOS) 36-item Short-Form Health Survey (SF-36: Ware & Sherbourne, 1992) and Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q; Endicott, Nee, Harrison, & Richard, 1993), the latter two of which are the second type of functioning measure discussed later, to assess psychosocial functioning in obsessive compulsive disorder (OCD) patients (N = 185). In this study, the LIFE-RIFT correlated -.74 with the SOFAS, -.68 with the Q-LES-Q short form, and -.56 with the SF-36 social functioning domain, thus correlating most strongly with another psychosocial functioning measure of the same type, but also moderately strongly with two measures of the other type.

At the same time, however, the LIFE-RIFT predicted later bipolar symptomatology severity even after controlling for initial symptom severity, with an odds ratio of 1.13 between symptomatology and LIFE-RIFT (CI: 1.04 ~ 1.21, $p < .001$) (Leon et al., 2000). Eisen and colleagues (Eisen et al., 2006) also showed that the LIFE-RIFT correlated .60 concurrently with the YBOCS (Goodman et al., 1989), which again raises the issue of inherent versus confounding relations between functioning and psychopathology. It must be noted further that—although we have classified the LIFE-RIFT interview as a measure of daily functioning—it does include “satisfaction” as a functional domain and, importantly, specific queries used to assess other functional

domains (e.g., work, relationships) may contain varying degrees of affect and psychopathology content, depending on interviewers' specific follow-up questions. Thus, no definite conclusions can be drawn regarding the degree of confound in this measure versus its "actual" degree of relation, particularly given that we lack knowledge concerning the "true" level of correlation between symptoms and functioning; thus, further research is needed to clarify the meaning of these relations more generally, as well as to investigate this particular measure specifically.

The LIFE-RIFT has been used primarily in studies on affective disorder (e.g., major depression, dysthymia, bipolar disorder), and also is beginning to be used with anxiety disorder (e.g., Eisen et al., 2006). Given the generality of the domains covered by the measure, it appears to be easily applicable in other mental health domains as well. One limitation of the LIFE-RIFT suggested in the literature regards the instruction to use the *worst* functional level as the domain score, which may be problematic by restricting the range of possible scores (e.g., Leon et al., 2000). Additional scoring methods (e.g., mean scoring) which might make fuller use of the information derived from the LIFE-RIFT interview should be explored in future studies.

Social Adjustment Scale (SAS: Weissman et al., 1971). The SAS is one of the most widely used measures of social functioning, and exists in both interview (Weissman et al., 1971) and self-report (SAS-SR: Weissman & Bothwell, 1976) form. The format and content of the SAS interview is based on the Structured and Scaled Interview to Assess Maladjustment (SSIAM; Gurland et al., 1972; Gurland, Yorkston, Stone, Frank, & Fleiss, 1972), and was developed for use in a depression treatment study to assess social adjustment and behaviors separately from depressive symptoms. However, as

described subsequently, its items do not entirely unconfound functioning and psychological symptoms.

The SAS has two types of scales scored from the same item pool. The first scale type provides a score for the overall level of functioning in each of seven domains (italicized words indicate scale names): individuals' *Workrole* (e.g., paid worker, homemaker, student), four interpersonal domains (*Marital*, *Parental*, nuclear family *Unit*, extended *Family*), *Spare* time/leisure activity (including social/interpersonal relations), and *Economic* (financial) functioning. The second set of scales provides scores for different types of functioning aggregated across the aforementioned seven domains: *Instrumental* role performance, *Interpersonal* behaviors, *Friction* with others, and *Feelings* and satisfaction. Of note, the *Friction* and *Feelings* items consist mainly of guilt and negative affect-related material (e.g., have you felt ashamed; have you felt upset, worried, uncomfortable, etc.). Thus, content related to psychopathology is both concentrated in these scales and also dispersed throughout the seven scales assessing different domains of social functioning.

The interview takes 45-60 minutes to administer, whereas the self-report measure can be completed in about 15-20 minutes. The two forms have different time frames: "past 2 months" for the interview and "past 2 weeks" for the self-report, with the differences due to the original purpose of development (i.e., the interview was developed for a maintenance trial and the self-report version for acute-treatment trials). Several adaptations of the SAS also exist: (1) a version of the SAS-SR (SAS-M: Cooper, Osborn, Gath, & Feggetter, 1982) was developed for use in England with modifications in wording and response format, (2) the SAS-II (Weissman, Sholomskas, & John, 1981)

was developed for assessing functional impairment in schizophrenia patients, and (3) the SAS for the severely mentally ill (SAS-SMI; Wieduwilt & Jerrell, 1999) was validated with patients suffering from schizophrenia and substance abuse as well as depression.

The psychometric properties of the SAS have been examined in multiple studies. In the original study to develop the SAS interview form using 40 depressed, and 40 non-depressed women, Weissman and colleagues (1971) reported 86% interrater agreement and a .80 correlation between interviewers' ratings. Intraclass correlation reliability reported for sites in the National Institute of Mental Health (NIMH) Treatment of Depression Collaborative Research Study (TDCRP) ranged from .45 to .96 for the overall score, .84 to .99 for the social and leisure domain score, and .84 to .97 for the work domain score (Imber et al., 1990). Using the SAS-SR in a small sample (N = 15) of depressed outpatients, Weissman & Bothwell (1976) reported agreement correlations for the overall function rating among three sources: (1) patient self-report and interviewer rating, r = .70, (2) self- and informant- (usually significant other) report, r = .74, and (3) informant and interviewer, r = .54. Using the SAS-M, the correlation between self-report and a psychiatrist's interview rating of overall functioning was .80 (N = 57 to 63 women), and that between self-report and husband's rating was .70 (N = 37 to 45) (Cooper et al., 1982).[iv]

Reported correlations between psychological symptoms and SAS social functioning scores have varied, and the SAS also is open to the criticism that it confounds symptoms in its assessment of functioning. Therefore, it may not accurately reflect the true magnitude of relations between depressive symptom and social functioning given that it already incorporates the former (e.g., in its Friction, Feelings, and satisfaction

items). Cooper et al. (1982) reported that the SAS-M correlated .33 to .64 with the Present State Examination, and .35 to .72 with the Profile of Mood States. Paykel, Weissman, and Prusoff (1978) correlated depression symptom scores in 40 depressed women with factor analytically derived SAS scales (Work Performance, Anxious Rumination, Submissive Dependency, Family Attachment, Interpersonal Friction, Inhibited Communication, and Total Score; however, the article does not provide the factor analytic results per se). In the acute phase of depression, the two measures were fairly independent (*r*s $\leq$ .20), whereas at 8-month follow-up, during the recovery phase, the correlations ranged from .11 with Submissive Dependency to .47 with Anxious Rumination, and .54 with the Total Score. Finally, the SAS-SR has been shown to be sensitive to symptom change, in that the social functioning score is higher after treatment (e.g., Vittengl, Clark, & Jarrett, 2004). However, the correlation with depression both pre- (r = .69) and post-treatment (r = .74), as well as between *change* in functioning and in depression (r = .72) was sufficiently strong to raise the question of whether the SAS was simply tapping depressive symptom levels (Clark, Vittengl, Kraft, & Jarrett, 2003).

Perhaps because it covers social functioning domains comprehensively, the SAS (particularly the SAS-SR) is widely used in research on social adjustment outcomes. As mentioned earlier, however, a crucial problem with the SAS is that the items are confounded with symptomatology. For example, the primacy of guilt and negative affect-related material in the *Friction* and *Feelings* scales explains both the findings of Jarrett and colleagues (Clark et al., 2003; Vittengl et al., 2004) and also why Paykel et al. (1978) found that the depressive symptom of “guilt” correlated the most broadly with

various aspects of social maladjustment. (Recall that the *Friction* and *Feelings* domain items are interspersed across the seven domains of social functioning).

The factor analytic results of the SAS in the latter study indicated that personality traits (e.g., dependency) as well as symptoms (e.g., anxious rumination) are incorporated into the measure, which undermines the validity of SAS as a social functioning measure per se unless we draw the line between functioning and symptomatology rather close to psychopathology end of the spectrum.

In addition, the scoring of the measure, particularly the self-report version, is very complicated for a variety of reasons. First, the response choices vary; for example, when items are irrelevant to a respondent's situation (e.g., an item about co-workers, if the respondent is a homemaker), sometimes "this is not applicable" is a response option, whereas other times respondents are instructed to skip the item. Because this variation creates potential confusion for respondents, it also complicates scoring, in that one must determine for each respondent whether "skippable" items were skipped legitimately or by mistake. Conversely, participants may respond to such items variably or even inappropriately (e.g., some currently unemployed person may respond to items about their previous functioning at work, whereas others may skip them), so such items also must be examined to determine whether they were answered when they should have been skipped or vice versa. Finally, in all versions, total scores must be computed so they accurately reflect the person's functioning relative to their status in the various domains (i.e., including parental functioning only when the respondent is a parent); moreover, because total scores reflect different sets of items across respondents (e.g., only some people respond to parenting or work items), it is not possible to compute internal

consistency indices.

World Health Organization Disability Assessment Schedule (WHO/DAS: World Health Organization, 1988). The WHO/DAS is a semi-structured interview measure for assessment of social functioning in psychiatric patients that is comprehensive and applicable to various cultural settings. Disability is defined as a loss or restriction of the capacity to perform particular social roles normally expected of individuals in their habitual environment (International Classification of Impairments, Disabilities, and Handicaps (ICIDH; WHO, 1980). The WHO/DAS contains five sections: overall behavior (e.g., self care, social withdrawal), social role performance (e.g., marital role, parental role, occupational role), patient in hospital (e.g., ward behavior, contact with the outside world), modifying factors (e.g., specific assets, home atmosphere), and global evaluation. Each rating is made taking into consideration the "severity" of the functional impairment and the "duration" of the dysfunctional behavior. The evaluation is based primarily on an interview with a "proxy" or "key" informant (usually someone from the patient's household), but a brief interview with the patient and using records also are recommended.

The WHODAS-II (World Health Organization, 2000) is a major revision from the original WHO/DAS. One important difference is the WHODAS-II's broad definition of social functioning, and its evaluation, as existing in the context of individuals' broad medical diagnoses, not the more limited context of only psychological illness. Another difference is the WHODAS-II's various alternative forms in addition to an interview-rating version, including a self-administered and several proxy (i.e., informant) versions (proxy self-administered, proxy interviewer-administered, and clinician self-

administered, which is when the clinician provides input regarding patient's functioning as a proxy without a specific patient interview). Third, both 36- and 12-item versions in both interviewer- and self-administered forms are available; the WHO recommends the 36-item interview version for comprehensiveness. Finally, the WHODAS-II consists of six domains (communication, mobility, self-care, interpersonal, work, and participation in society), and an overall global rating score can be calculated. Respondents are instructed to consider the level of functioning during the past month.

Multiple field trials (16 centers across 14 countries) have been conducted to examine the instrument's reliability, sensitivity to change (e.g., after treatment), and predictive validity (i.e., ability to predict disability-related outcomes). For example, Chwastiak and Von Korff (2003) assessed functional impairment in depressed and back pain patients in a primary care setting and reported that (1) internal consistency (Cronbach's alphas) for the subscales of the 36-item self-report measure ranged from .65 to .91 in the back pain sample (mean alpha = .81, N = 76) and .68 to .91 (mean alpha = .83, N = 73) in the depressed patient sample; (2) improvement in scores were associated with alleviation in physical pain and psychological distress, and (3) moderate to high correlations were reported among WHODAS-II domain scores and the SF-36 (another widely used measure of health status). Psychometric properties tested in a Spanish-speaking sample from Puerto Rico, Texas, and California (Chávez et al., 2005) showed good internal consistency coefficients (alphas .72 to .97) with one exception (self-care alpha = .47).

The WHODAS-II has multiple strengths. It is comprehensive and allows comparisons of general disability and six domain-specific disabilities; it is applicable to

both psychological and physical disorders; and it has been translated into 15 different languages and is applicable to multiple cultures. Psychometric evaluation of the measure is still in its infancy, however, and research comparing its relations with existing measures of disability and functioning is especially needed. Also, the WHODAS-II items tend to assess basic human functioning ability (e.g., basic self-care ability, mobility problems) and may not be as informative for average to high functioning individuals.

Social Functioning Questionnaire (SFQ; Tyrer et al, 2005). The SFQ is an 8-item self-report measure designed to assess social functioning over the past 2 weeks simply and conveniently, across such domains as work and home tasks, financial concerns, relationships with family, sexual activities, social contacts, and spare time activities. The measure originated from the Social Functioning Schedule (SFS; Remington & Tyrer, 1979), a semi-structured interview that targeted 14 dimensions of various functioning domains. The facets were reduced for the SFQ, because substantial intercorrelations among domains indicated that a reduced number would be sufficient for comprehensive global assessment of social functioning.

The SFQ has been used primarily in studies examining links between psychopathology, personality, and social functioning outcome. For example, Nur and colleagues (Nur, Tyrer, Merson, & Johnson, 2004) examined social functioning at baseline, 2, 4, and 12 weeks after patients made an emergency psychiatric visit. The stability of scores between different time periods was somewhat greater for people diagnosed with personality disorder (PD)—*r*s ranged from .66 to .83—than for the non-PD group, in which *r*s ranged from .38 to .71.

Seivewright, Tyrer, and Johnson (2004) assessed PD status (at baseline) and

social functioning (at baseline and 12 year follow-up) in patients diagnosed with dysthymia, generalized anxiety disorder, and panic disorder. The results indicated that baseline PD—as assessed by the Personality Assessment Schedule (Tyrer & Alexander, 1988)—related significantly to disturbed social functioning 12 years later. More specifically, patients' with PD showed worse level of functioning than patients' without PD (overall effect size = .60), particularly in the domains of close relationships, stress in completing tasks, use of leisure time, and family relationships.

The SFQ is short and easy to administer, but limited as a comprehensive measure of daily functioning due to the small number of items comprising each domain. In addition, the measure incorporates affect-laden items (e.g., I feel lonely and isolated from other people; I enjoy my spare time), which once again may confound psychopathology and social functioning, and may account—at least in part—for the strong relations between PD and functioning.

Summary. The review of measures commonly used in Axis I disorder generated following notable points.

(1) Measures exist in multiple formats (e.g., self-report, interview format) with various time frames ranging from 1 week to 1 month. Sometimes no time frame is specified, which yields a more general assessment of functioning.

(2) Measures include multiple domains—consistently assessing the domains of work and relationships, and often including basic self-care, leisure time, financial functioning, and satisfaction ratings.

(3) Measures vary in the types of questions used to assess functioning, often including both behavioral and affect items. Some measures have a preponderance of

negative-affect-laden items, which potentially overestimates relations between daily functioning and psychopathology.

Functioning Assessment in Axis II Disorder

Adult Personality Functioning Assessment (APFA: Hill, Harrington, Fudge, Rutter, & Pickles, 1989). Although many social functioning measures exist, the APFA is unique because it is one of the only existing interview measures that specifically focuses on psychosocial functioning in the context of PD. The measure provides an evaluation of individuals' long-term, general level of functioning rather than short-term, present level of functioning given certain type of psychological or medical conditions.

The APFA is an investigator-based standardized interview assessing six functioning domains that most people experience regardless of their idiosyncratic situations: Work, Love relationships, Friendships, Non-intimate social contacts, Negotiations, and Everyday coping. According to the manual, the APFA is recommended for use in adults 23 years or older, with functioning between ages of 21 and 30 is considered as a "baseline" period, and the past 5 years' functioning rated as "current" functioning. If subjects are between ages of 18 – 23, the adolescent version of this interview is recommended for use (i.e., Adolescent to Adult version: ADAPFA; Naughton et al., 1996). History of psychopathology is obtained via interview and whenever possible, dysfunction is assessed in periods absent of Axis I psychopathology.

An important consideration for rating is that the scores are to be based on the interviewees' description of *behaviors* (rather than their attitudes, cognitions, or self-concepts). Dysfunction is evaluated using a six-point scale (0 – 5) where higher scores indicate more dysfunction, and an operationally defined score of 16 or greater is

suggested as an indication of generalized dysfunction. Both *level* and *type* of dysfunction are scored (e. g., a discordant dysfunction type is used when there is evidence of violence in a relationship vs. an avoidant dysfunction type is used when there is clear lack of intimacy in a relationship).

Recently, a version of the APFA adapted for use in adolescent samples has been introduced (the Adolescent to Adult Personality Functioning Assessment; ADAPFA, Bolton et al., 2004) as well as a revised version of the APFA (Revised Adult Personality Disorder Functioning Assessment; RAPFA, Hill et al., *2008*). The RAPFA includes several modifications, including more detailed descriptions of each domain based on examination of cumulative data using the APFA.

Psychometric results reported on the APFA include: (1) the ICC among three interviewers in 21 subjects was .87 for the total score (Hill et al., 1989), (2) a LISREL model suggested that 55% of general social dysfunction was explained by the six specific domains (Hill et al., 1989), (3) good subject and informant agreement was demonstrated on the level of dysfunction (ICCs = .38 - .77) (Hill, Fudge, Harrington, Pickles, & Rutter, 1995), (4) moderate convergence was found with the PAS, a personality-trait measure (*r*s = .44 to .60 when the PAS was modified to include only traits) (Hill, Fudge, Harrington, Pickles, & Rutter, 2000), and (5) the Negotiation and Coping domains yielded weaker ICCs compared to the others (Hill et al., 1989, 1995).

Difficulties with the APFA are that it requires intensive interviewer training and its length limits its utility in regular clinical settings and even in research. Also, current functioning is assessed regarding the most recent 5 years, which raises the question of how accurately an interviewee can answer such questions. In addition, no research exists

to date comparing the APFA with other interview measures of social functioning, such as the LIFE or the LIFE-RIFT. Such research will provide interesting information on whether social functioning focused on a longer time frame will generate qualitatively different information from that focused on shorter time frames. Nonetheless, the APFA (and the RAPFA) is an interview-based measure with many merits. It is comprehensive, psychometrically strong, and provides a detailed manual to guide interviewers. Given less strong psychometric evidence with regards to the Negotiation and Coping domains, using a shortened version of the interview seems promising.

Measure of Disordered Personality and Functioning (Parker et al., 2004). Gordon Parker and colleagues in Australia are proponents of a two-tiered model of PD assessment in which psychosocial dysfunction and personality style (types) are assessed separately to derive a PD diagnosis. They developed measures of functioning based on broad literature reviews on personality and PD (Parker et al., 2004).

For the development of this measure, a large item pool (17 constructs and 141 items) was developed initially by reviewing existing literature and measures. Factor-analytic procedures identified 11 domains of dysfunction (Disagreeableness, Inflexibility, Uncaring to Others, Non-Empathic, Ineffectiveness, Self-Defeating, Failure to Learn from Experience, Impulsivity, Pessimism, Instability Under Stress, Lacking Self-Direction) assessed with 65 items. From these items, two higher-order factors – Non-cooperativeness and Non-coping – were extracted. Ten items with the highest loadings on each factor comprised the final 20-item scale and no specific time frame is indicated in the instructions, which suggests that the items are to be answered “generally” without explicitly instructing raters in this regard.

Parker and colleagues (2004) conducted discriminant analyses between a PD and a no-PD control group comparing personality style and the two higher order factors of functioning. Both style and functioning proved to be equally capable of discriminating the two groups. The final Non-Cooperativeness and Non-coping scales were correlated also with the 15 personality styles, with *rs* ranging from .33 (between Non-Cooperativeness and Dependent PD) to .78 (between Non-Coping and Depressive PD), suggesting that the newly developed measure of psychosocial functioning is moderately to strongly related to individuals' personality style.

An examination of the items suggests that the strength of these correlations is due, in part, to blending of personality style and functioning at the item level (e.g., an example of a personality functioning item is "People at work see me as cooperative and agreeable"). However, as mentioned previously, although it is a compelling hypothesis that one's personality style and one's daily functioning level are related, this hypothesis may be difficult to test with blended items. Thus, although Parker and colleagues' measure is a good start in investigating this issue, it may require refinement, especially given their two-tiered theoretical model in which individual functioning should be rated as independently as possible from personality characteristics.

Severity Indices of Personality Problems (SIPP: Verheul et al., 2008). The SIPP is a 118-item self-report measure (with a 60-item short form) developed by researchers in the Netherlands (Roel Verheul and colleagues). The measure is designed to evaluate the core component of maladaptive personality functioning that is changeable as opposed to the more stable personality style (the term is used the same way as Parker and colleagues), and utilizes a past-3-months time frame.

Maladaptive functioning was defined operationally simply as “the lack of adaptive functioning” and 25 facets of adaptive functioning were derived rationally (e.g., frustration tolerance, autonomy) assessed by an initial pool of 277 items. The final measure has five higher order domains comprised of 16 lower order facets: Self-control (Emotion regulation, Effortful control, Stable self-image, Self-reflexive functioning, Aggression regulation), Identity integration (Frustration tolerance, Self-respect, Purposefulness, Enjoyment), Relational capacities (Feeling recognized, Intimacy, Enduring relationships), Responsibility (Responsible industry, Trustworthiness), and Social Concordance (Respect, Cooperation). The SIPP has been translated into English and other European languages and currently is undergoing psychometric evaluation research.

The SIPP, being a new measure in the field, has not been widely used and tested. The idea, however, of conceptualizing separately aspects that are stable and aspects that are changeable in PD patients reflects an interesting perspective to disentangling presumably more stable personality traits from conceptually less stable dysfunction in daily activities. The item composition of the SIPP also is interesting in that it concerns not only maladaptive characteristics that are consistent with the existing criteria for PD but also addresses domains such as Purposefulness (e.g., I strongly believe that life is worth living). Such domains have been less studied in relation to social functioning in both the Axis I and II domains, although there is increasing awareness of the importance of such concepts in therapeutic contexts.

The SIPP, however, contains items that again seem to confound personality traits and functioning (e.g., It is hard for me to cooperate unless others submit to my way of

doing things; Some people have criticized me because of insufficient sense of responsibility). Therefore, the measure needs further empirical examination as a comprehensive psychosocial functioning measure.

Summary. This review of functioning measures developed within the context of PDs generates several noteworthy points.

(1) Both self-report and interview measures have been developed in this area. The time frame in assessing functioning varies, but tends to focus on a longer period of time (ranging from 2 weeks to 5 years) when compared to the measures used in Axis I research, which rarely extend beyond past one month.

(2) Domains assessed in the aforementioned measures vary, although common themes tend to be in the work and relationship domains. The APFA and SFQ contain largely the domains assessed in measures for Axis I, whereas Parker's measure and the SIPP are quite different, assessing domains that are more specific and more directly relevant to dysfunction rooted in maladaptive personality traits.

(3) To varying extents, psychosocial functioning measures specifically developed for PD research are confounded—whether intentionally or unintentionally—with personality traits and psychopathology symptoms.

Quality of Life, Well-Being, and Life Satisfaction

In this section, I review several quality of life, well-being, and life-satisfaction measures. Early measures of these domains of functioning emerged shortly after the advent of *DSM-III* (APA, 1980), and recently have been discussed frequently in the realm of positive psychology, which focuses on human potential rather than psychopathology. Examination of functioning from this perspective may yield a more comprehensive

assessment of functioning than one focused purely on behavioral indices, but necessarily depends on individuals' subjective self-assessments.

Medical Outcome Study (MOS) 36-item Short-Form Health Survey (SF-36: Ware & Sherbourne, 1992). The SF-36 is one of the most widely used generic measures of health status and functioning and frequently is referred to as a health-related quality-of-life measure, presumably because it covers comprehensive domains ranging from physical health, mental health, functional impairments, and well-being/vitality. It has been used in more than 500 studies examining outcomes for a range of physical (e.g., diabetes, cancer, back pain, cardiovascular disease) and psychological (e.g., depression, trauma, substance abuse) disorders. The measure originated in a pool of 149 items, developed by adapting items from a variety of sources that assessed general psychological well-being, physical functioning, role functioning, and health perceptions. An early version of the SF-36, the SF-20 (Steward, Hays, & Ware, 1988), was expanded to improve the breadth and depth of the assessment by incorporating both more items (e.g., in the pain and social functioning domains) and additional domains (e.g., vitality, general health perceptions). The SF-36 includes eight health domains, each assessed by multiple items, with "on a typical day" or "past 4 weeks" as standard time frames. Domains are physical functioning (10 items), role-physical (i.e., role limitations due to physical health problems, 4 items), role-emotional (i.e., role limitations due to emotional problems, 3 items), bodily pain (2 items), general health perceptions (5 items), vitality (4 items), social functioning (2 items), and mental health (i.e., psychological distress and well-being, 5 items). The instrument has summary scores for physical and mental health, and has both self-report and interviewer-based versions, each of which takes about 10

minutes to administer.

Reported alpha reliability indices of the SF-36 domains and the two summary scores are generally above .80 (Brazier et al., 1992; McHorney, Ware, Lu, & Sherbourne, 1994; Ware, 2000) with reported exceptions on the two-item Social Functioning scale (e.g., alpha of .68; Ware, 2000). McHorney, Ware, and Raczek (1993) administered the instrument in a study assessing the validity of the SF-36 in measuring physical and mental health constructs. They defined four mutually exclusive patient groups based on clinical criteria (e.g., disease-specific criteria, depression symptom scale; see McHorney et al., 1993, for details): minor medical conditions only (i.e., controls; *N*=576); serious medical conditions only (*N*=168); psychiatric condition only (*N*=163); and both psychiatric and serious medical conditions (*N*=45). Of note, the psychiatric condition assessed in this study was primarily major depressive disorder.

The authors then compared the SF-36 domains' mean scores across groups and reported a relative validity (RV) index, with a greater mean difference resulting in a higher RV index. Results indicated that domains that examined physical health (i.e., physical functioning and role-physical) were best at distinguishing levels of severity in medical patients (i.e., comparing the serious vs. minor medical conditions groups; RV indices 1.00 and .71 for physical functioning and role-physical, respectively), whereas domains tapping mental health (i.e., mental health, role-emotional) were effective in distinguishing the psychiatric condition and control (minor medical conditions) groups ; RV indices 1.00, 0.54, and 0.54 for mental health, role-emotional, and social functioning, respectively). In addition, social functioning, vitality, and general health perception were shown to explain roughly equal variance in both physical and mental health role

functioning (*rs* ranged from .37 to .69; Ware, 2000).

In sum, the SF-36 is one of the most used health outcome measures tapping into both physical and mental health domains. The measure's strengths include that (1) it was developed after a review of the medical health outcome assessment literature; (2) its eight domains cover the most frequently explored constructs in this literature; and (3) it reasonably balances psychometrically valid and comprehensive assessment with clinical utility (e.g., brevity).

One of the major problems with the SF-36, however, is that it is intended to assess activity limitations *due to* health conditions or emotional conditions. As discussed earlier, it is questionable whether the raters (both patients and clinicians) can distinguish whether certain impairments actually are due to physical or emotional dysfunction. Indeed, the empirical status of the etiology of impairment is far from established by research. Another limitation of the SF-36 is that certain domains could be improved with additional items. Developing a brief and convenient measure was a strong driving force behind this instrument's development, but psychometric evidence suggests that at least the Social Functioning domain is too short to assess the domain fully (e.g., Ware, 2000). Further, social functioning is an important outcome domain and assessment by only two items necessarily limits its utility.

World Health Organization Quality of Life (WHOQOL; Bonomi, Patrick, Bushnell, & Martin, 2000; WHOQOL Group, 1995; WHOQOL Group, 1998). The WHO defines quality of life as "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (WHOQOL Group, 1995, p. 1405). The definition

indicates that quality of life includes subjective aspects of both positive and negative life conditions. Also, quality of life is assumed to be a multidimensional construct that includes such domains as physical, psychological, social, and spiritual aspects of life. The WHO thus undertook the task of developing "a genuinely international quality of life assessment" (WHOQOL Group, 1995, p. 1404) by collaborating with researchers from various countries in the construct and item development process. After series of translations and back translations, two quality-of-life measures were developed: the WHOQOL-100 and WHOQOL-BREF. The measures have been field tested in 15 countries, including, for example, the U.S., England, Italy, India, and Japan.

The WHOQOL-100 includes six domains (physical, psychological, level of independence, social relationships, environment, and spirituality/religion/personal beliefs) and 24 facets (e.g., "pain and discomfort" under the physical domain), with four items comprising each facet, plus four additional items that assess overall quality of life and health. The WHOQOL-100 internal consistency alphas range from .82 to .95 across domains (U.S. version), and correlations between the overall WHOQOL score and 8 domains of the SF-36 range from .26 to .60 (Bonomi et al., 2000). Test-retest reliabilities (2 ~ 8 weeks interval) across four domains were .66 for physical health, .72 for psychological, .76 for social, and .87 for environment (WHOQOL Group, 1998). The WHOQOL-BREF (WHOQOL Group, 1998) is an abbreviated version of the WHOQOL-100 and assesses four domains (physical, psychological, social, and environment, omitting independence and spirituality). One item was selected from each of the 24 facets to maintain comprehensiveness, and two of the overall assessment items were included, yielding 26 total items. Items were chosen based on two psychometric

criteria: explaining a large proportion of variance of the target domain and maintaining the structure of the WHOQOL-100.

Psychometric research on the WHOQOL-BREF has yielded several positive results using data collected from 13 ~ 23 field centers around the world where patients using health care facilities were recruited (Skevington, Lotfy, & O'Connell, 2004; WHOQOL Group, 1998): the four-domain model (1) provided a good fit (Comparative Fit Index = .90), (2) showed fair to good internal consistency (alphas ranged from .66 to .84; AICs = .07 to .17), (3) correlated strongly (from .89, social relationship to .95, physical) with the corresponding WHOQOL-100 domain scores, (4) discriminated ill and healthy respondents equally well compared to the WHOQOL-100, (5) contributed significantly (all four domains) in explaining the overall quality-of-life variance, with the physical domain contributing the most (mean standardized beta = .34) and social relationships contributing the least (mean standardized beta = .15), and (6) had 2-8 week test-retest correlations that were moderately high to high, ranging from .66 (physical) to .87 (environment).

The WHOQOL is a multidimensional measure of well-being that has numerous strengths, one of which is that it is culturally sensitive. Culture is an important contextual variable in psychological research and practice; however, it rarely is considered across all measure-development phases. The WHOQOL group utilized a multi-center approach and collaborated with researchers in different countries (e.g., France, India, Japan, Panama, Russia, Thailand). The WHOQOL group also was cognizant of the complex nature of the quality-of-life construct, and conceptualized it broadly and systematically. As a result, the measure assesses domains, such as spirituality, that are important yet not

commonly included. The development of a short-form, the WHOQOL-BREF, enhances its utility and is especially helpful given that it evidences strong psychometric properties. A weakness of the measure is that the domain of social relationships has only 3 items and frequently yields internal consistency alphas below .70 (e.g., Skevington et al., 2004), so this subscale has limited utility in assessing this domain.

Scale of Psychological Well-Being (PWB; Ryff, 1989). Discussions of human happiness and satisfaction in the psychological literature have been guided by two theoretical / philosophical perspectives: Hedonic and Eudaimonic well-being (e.g., Ryan & Deci, 2001). Hedonic well-being, which can be traced back to such philosophers as Aristippus, defines human happiness as being maximized by increasing pleasure and reducing pain. The eudaimonic well-being literature, in contrast, emphasizes deriving meaning in life by facing existential challenges–including embracing negative affect–and pursuing valued goals, following such philosophical traditions as Aristotle's. The PWB is one of the widely used measures assessing eudaimonic well-being. After a broad literature review on well-being and mature functioning, including major psychological approaches to positive human functioning, (e.g., Maslow's (1943) *self-actualization*, Rogers' (1961) *fully functioning individual*, and Erikson's (1959) *psychosocial stage model*), Ryff (1989) developed the 84-item PWB with six subscales–autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance.

The subscales have been shown to be internally consistent (alphas > .80), but they also overlap with psychopathology and/or big five personality traits. For example, self-acceptance and environmental mastery correlated -.70 with N; personal growth correlated

.43 and .42 with E and O, respectively; and positive relations with others correlated .52 with A (Schmutte & Ryff, 1997). Moreover, factor analysis of the PWB scales with these measures suggested a three-factor solution in which self-acceptance and environmental mastery loaded (negatively) with measures of negative affect (e.g., depression, low self-esteem), and autonomy with locus-of-control measures, with only purpose in life, positive relations with others, and personal growth forming a pure well-being factor (Ryff, 1989), thus raising the question of discriminant validity from personality/psychopathology for at least certain aspects of this concept of functioning. That is, whereas correlations of ~.40 between subjective well-being and certain personality traits may be defensible on conceptual grounds, correlations as high as .70 suggest that the measures are tapping facets of a single construct, requiring either reconceptualization of personality and/or positive functioning, or reconsideration of the measure(s) if it is to assess positive functioning independent of personality and psychopathology.

Satisfaction with Life Scale (SWLS; Diener et al., 1985). Complementary to the PWB, the SWLS is one of the most widely used measures in the hedonic well-being literature. Hedonic well-being ('subjective well-being' in the positive psychology domain) is theorized to incorporate life satisfaction, positive affect, and low negative affect components. The SWLS is comprised of 5 items that focus explicitly on global life satisfaction (Pavot & Diener, 1993). Originally, 48 items concerning life satisfaction were generated, which yielded three factors: life satisfaction, positive affect, and negative affect. Elimination of the positive and negative affect items (due to their redundancy with established constructs and measures) and items loading < .60 on the life satisfaction factor resulted in 5 items that formed a single factor explaining 66% of the total variance

(Diener et al., 1985). Nonetheless, the SWLS total score correlated -.48 with neuroticism (Diener et al., 1985), -.32 with a measure of negative affect (Larsen, Diener, & Emmons, 1985), and .26 with positive affectivity (Urry et al., 2994).

Good internal consistency is reported (alpha = .79 ~ .89; AIC = .43 ~ .62), and the measure has shown good convergence with other life satisfaction measures (Diener et al., 1985; Pavot & Diener, 1993). For example, r = .47 with PWB in a community sample of women (Urry et al., 2004), and r = .46 with the Life Satisfaction Index (LSI: Neugarten, Havighurst, & Tobin, 1961), which is widely used in geriatric research. Test-retest correlation coefficients range from .54 (over 4 years) to .82 (over 2 months), indicating both short-term stability and sensitivity to change due to life events (Diener et al., 1985; Magnus, Diener, Fujita, & Pavot, 1992; Vitaliano, Russo, Young, Becker, & Maiuro, 1991). Pavot and Diener (1993) report normative data on a range of populations, including college students, psychotherapy clients, and older samples.

In sum, the SWLS has shown strong psychometric properties and has demonstrated validity for assessing subjective life satisfaction. However, the measure has only 5 items and thus provides only global information regarding life contentment rather than satisfaction about any specific life domains (e.g., job, family, finances). Also, the measure focuses on assessing life satisfaction and not the specifically affective portion of the hedonic well-being construct, and thus is theoretically limited as an ideal, comprehensive measure of hedonic / subjective well-being.

Summary. Findings from quality of life/satisfaction literature are as below.

(1) Quality of life is a broad term, and measures of this type are commonly multidimensional. The significance of this multidimensional subdomain in the context of

the broader domain of functioning is its potential to add assessment of mature human functioning and a specifically subjective evaluative component. Further, relations with measures of daily functioning are understudied and remain interesting and important empirical questions to pursue.

(2) Several measures in this domain overlap with personality and affect measures. Understanding the extent to which they "should" overlap remains an important theoretical and empirical challenge.

Overview of the Study

As the above review of the literature indicates, further research is needed to clarify our understanding of the significant, yet underexamined, domain of functioning and its relations with personality traits and disorder. A review of the literature in the domains of self-care, social functioning, life satisfaction, and quality of life—to name a few of the relevant domains—reveals measures in both self-report and interview format that have been used to assess individuals' level of psychosocial functioning. However, no systematic evaluation of these constructs incorporating the broad existing literature is known to date. That is, the current field has dozens of measures and lacks a coherent structural model. Given our current level of understanding, we can only speculate about the measures' interrelations, and their relations to the overarching constructs of individual functioning, personality traits, and psychopathology.

Several key questions mandate attention at this point. *First*, considering the entire broad domain, how is psychosocial functioning assessed using current measures? That is, what are the major domains encompassed under this construct, and how well is psychosocial functioning differentiated from personality traits and affect at the level of

item content? *Second*, how strongly are psychosocial functioning and personality traits related? This question, to our knowledge, has never been examined utilizing comprehensive measures of functioning that derive from both the adaptive functioning and personality functioning domains. *Finally*, does the two-pronged diagnostic model that currently is advocated by many researchers supporting a trait dimensional approach to the diagnosis of Axis II work? More specifically, does the assessment of functioning contribute significant additional variance in predicting PD diagnosis in addition to personality traits?

The proposed study proceeded in two phases to examine these questions. *First*, multiple existing measures of functioning were administered to the same sample and their interrelations analyzed to examine which scales were highly confounded (i.e., $r \geq |.70|$) with personality traits and affect, and to explore the structure of the broad construct of functioning. *Second*, using the items and functioning structure identified in phase one, relations among psychosocial functioning, personality traits, and PD diagnosis were examined in a second sample. Testing the validity and utility of the two-pronged model was one of the major foci of the second phase.

Data collection proceeded in two stages. The <u>first stage</u> involved refining the psychosocial functioning item pool and examining the underlying structure of the construct. College students and staff members at the University of Iowa Hospitals and Clinics (UIHC) were invited for participation in this phase of the study. Participants completed self-report measures assessing major functioning domains (e.g., self-care, major role functioning, relationship functioning, life satisfaction), personality traits, mood, and affect.

The second stage involved examining relations among functioning, personality traits, and PD utilizing the refined psychosocial functioning item pool generated from the first phase. College students and patients in various mental health clinics in Iowa City were invited for participation in the second stage. Participants completed a self-report battery including measures of functioning, personality traits, and PD. Interviews also were conducted with this group of participants to screen for Axis II diagnoses, and to derive clinician-rated functioning rating. Of note, all the measures used in both study phases were either in the public domain or were used with the permission of the respective copyright owners.

Study Hypotheses

The current study encompassed both exploratory and confirmatory hypotheses. Exploratory analyses examined:

(1) The multidimensional structure of the functioning construct

Hypotheses tested in the study included:

(2) Existing measures of functioning have considerable overlap with personality traits and affect.

(3) Refined functioning measures are moderately correlated with personality traits, PD screener scores, and affect measures.

(4) Psychosocial functioning contributes significant additional variance to personality traits in explaining personality pathology. Personality pathology was assessed by continuous scores based on PD criteria.

CHAPTER II

STUDY ONE

Method

Participants

To identify the structure of psychosocial functioning, multiple existing measures of this construct were administered to community participants. Four-hundred and twenty nine adults (*N* = 218 students, 211 community adults) completed the set of measures. College students were recruited mainly from the University of Iowa, Department of Psychology research participant (RP) pool, as well as various student organizations (e.g., Asian student associations) and flyers throughout campus. The UIHC staff members were recruited by advertisement in a daily newsletter ("The Noon News") and via word of mouth.

To be eligible for the study, participants had to be 18 years or older and able to complete measures in English (e.g., sufficiently fluent in English, without mental retardation, dementia/delirium, or active psychosis). Interested RP pool students signed up for the study through the RP website and were scheduled for a 2-hour appointment in the Department of Psychology, where they completed the questionnaires on-line. The RP students received research credits toward fulfilling a course requirement for their participation. Other participants called or emailed the lab to indicate their interest. They were given the option of coming to the lab or using a computer of their choice to complete the survey, in which case they were e-mailed a link to the questionnaire, and a unique ID and password. Participants received a $20 gift card for completing the battery.

Participants' demographic information is provided in Table A1, overall and separately by subpopulation. Overall mean age was 25, with students younger and more

homogeneous in age than community adults (20.5 vs. 29.6, respectively; t (241) = 10.15; p < 001; range = 18-38 for students, 18-81 for community adults). The majority of the sample (65%) was female (60% of students and 71% of community adults; X^2[1] = 10.2) and Caucasian (78% of students, 85% of community adults, *ns*). Students more often had lower incomes and were single or dating, whereas community adults more often were married or cohabiting, and a significantly greater percentage had a college or advanced degree. There was no difference in the percent of students (7.3%) versus community adults (11.8%) who reported a history of mental health problems, with depressive disorder (e.g., major depression, postpartum depression) the most commonly reported condition.

Measures

For a comprehensive assessment of psychosocial functioning, multiple measures from various literature domains (e.g., psychosocial functioning, quality of life, PD and functioning) were incorporated into this first study phase. In addition, personality and mood/affect measures were included, to identify and eliminate psychosocial functioning domains that were redundant with these constructs. Psychosocial functioning measures that were reviewed in the introduction are listed briefly below. Psychometric information is not repeated here.

Psychosocial Functioning Measures

Social Adjustment Scale (SAS: Weissman et al., 1971). The SAS was administered in its full form (i.e., 56 items), which asks about social functioning in the "past two weeks." Only the SAS total score was used in the analyses.

WHO Disability Assessment Schedule II (WHODAS-II; World Health Organization, 2000). The WHODAS-II 36-item self-report version was used in its full form. The time frame for this measure is "past one month." The WHODAS-II includes the domains of Understanding/ communicating, Getting along, Self-care, Getting around, Life activities, Participation, and Work/school. The Work/school domain was dropped from the factor analyses due to the inevitable missing values created by participants who responded to neither of these domains.

Social Functioning Questionnaire (SFQ; Tyrer et al.,2005). The full 8-item version of the SFQ was included. The measure utilizes a "past two weeks" time frame and assesses global functioning.

Measure of Disordered Personality and Functioning (MDPF; Parker et al., 2004). The 65-item version of this measure of functioning was administered. A 20-item version, generated by selecting the 10 items that had the highest loadings on the measures' two factors, namely, "Non-Coping" and "Non-Cooperativeness," is the final form of the measure. However, this method of item selection yielded a scale that is internally consistent but limited in comprehensiveness. Therefore, to assess the functioning construct more comprehensively, the 65-item version of the measure, which was the item set Parker and colleagues used to derive the final 20 items, was used in this study. No specific time frame was indicated for this measure and its response format is a 4-point Likert-type scale (1 = Definitely false; 2 = Mostly false; 3 = Mostly true; 4 = Definitely true). The MDPF measures following domains: Disagreeableness, Non-empathic, Uncaring to others, Fail to learn from experience, Inflexibility, Self-defeating, Lack of self-direction, Ineffectiveness, Pessimism, Impulsivity, and Instability.

Severity Indices of Personality Problems-Short Form (SIPP-SF: Verheul et al., 2008). The 60-item version of the SIPP was used in the study. The SIPP-SF measures the same five higher order domains (i.e., Self-Control, Identity Integration, Responsibility, Relational Functioning, and Social Concordance) as the 118-item version with a reduced number of items. The five higher domain scores derived from the short-form and the long-form are reported to be correlated above .90 (personal communication with the author, May 8th, 2007). The SIPP uses a "past 3 months" time frame with a 4-point Likert scale (1 = Fully disagree, 2 = Partly disagree, 3 = Partly agree, 4 = Fully agree).

WHO Quality of Life-BREF (WHOQOL-BREF; WHOQOL Group, 1998). The 26-item WHOQOL-BREF, which has been shown to be highly related to the 100-item full version measure (Skevington et al. 2004; WHOQOL Group, 1998), was used in this study. The measure uses a "past 2 weeks" time frame and 5-point Likert-type scale format (1 = Not at all, 2 = Not much, 3 = Moderately, 4 = A great deal, 5 = Completely), and assesses the following domains: General, Physical, Psychological, Social Relations, and Environment.

Satisfaction with Life Scale (SWLS; Diener et al., 1985). This five-item scale was used with its "general" time frame and a 7-point Likert scale format (1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Neither agree nor disagree, 5 = Slightly agree, 6 = Agree, 7 = Strongly agree). The measure yields an overall satisfaction score that was used in the analyses.

Subjective Psychological Well-Being (PWB; Ryff, 1985). The 54-item version of the scale was used. The measure has a "general" time frame and a 6-point Likert scale (1 = Strongly disagree, 2 = Moderately disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Moderately agree, 6 = Strongly agree). Six domains were used in this study: Autonomy, Personal Growth, Acceptance, Positive Relations with Others, Environmental Mastery, and Purpose in Life.

Personality Traits and Affect Measures

Big Five Inventory (BFI; John & Srivastava, 1999). The BFI is a 44-item self-report measure examining five broad dimensions of personality: Neuroticism (8 items; e.g., "I worry a lot"), Extraversion (8 items; e.g., "I am outgoing; like to be with people"), Agreeableness (9 items; e.g., "I am kind and considerate to almost everyone"), Conscientiousness (9 items; e.g., "I keep working until things are done"), and Openness (10 items; e.g., "I like artistic and creative experiences"). The 5-point rating scale ranges from "strongly disagree" to "strongly agree." The alpha reliabilities are reported to be within a .79 to .88 range (John & Srivastava, 1999), with good convergent correlations with the NEO Five Factor Inventory (Costa & McCrae, 1992) (rs = .85 to .96).

Inventory of Depression and Anxiety Symptoms (IDAS; Watson et al., 2007, 2008). The IDAS is a comprehensive and multidimensional measure of depression that provides scores on various symptom dimensions of depression (e.g., dysphoria, appetite loss, suicidality). The IDAS also includes anxiety symptom items that show good discriminant validity from depressive symptoms.

The IDAS consists of 64 items asking about symptoms in the past 2 weeks and follows a five-point Likert-type scale (ranging from "not at all" to "extremely"). The

domains included in IDAS are General Depression (which overlaps with other domain items), Dysphoria (e.g., “I felt inadequate”), Lassitude (e.g., “It took a lot of effort for me to get going”), Insomnia (e.g., “I woke up much earlier than usual”), Suicidality (e.g., “I had thoughts of suicide”), Appetite Loss (e.,g., “I did not have much of an appetite”), Appetite Gain (e.g., “I ate more often than usual”), Ill Temper (e.g., “I was furious”), Well-Being (e.g., “I felt optimistic”), Social Anxiety (e.g., “I found it difficult to make eye contact with people”), Panic (e.g., “I was short of breath”), and Traumatic Intrusion (e.g., “I had memories of something scary that happened”). Research shows that the IDAS has strong psychometric properties (i.e., internal consistency, test-retest reliability, convergent and discriminate validity) (Watson et al., 2007) and has incremental validity over the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996) and Beck Anxiety Inventory (Beck & Steer, 1990) for *DSM-IV* diagnoses (e.g., major depression, GAD, PTSD) (Watson et al., 2008).

Positive and Negative Affect Schedule (PANAS; Watson, Clark, Tellegen, 1988). The PANAS is a 20-item self-report measure of positive and negative affect on which participants are asked to rate to what extent a set of mood words describes how they feel. It uses a five-point Likert-type scale. Negative affect reflects various subjective-distress-related aversive mood states, such as “distressed,” “upset,” and “nervous.” Positive affect includes mood states that are related to feelings of enthusiasm, alertness, and energy, such as “interested,” “excited,” and “determined.”

The scale allows investigators to use the time frame relevant to their research question, and we used a “past 2 weeks” time frame. Watson et al. (1988) presented data showing that: (1) the PA and NA dimensions are largely uncorrelated (maximum

correlations are approximately -.30), (2) the NA and PA scales are internally consistent over various time frames (alphas range from .84 ~ .90), and (3) the scales exhibit moderate stability consistent with their assessing variable mood states across 8-weeks (correlations ranged from .39 ~ .71).

Results

The goals for these analyses were (1) to examine existing psychosocial functioning measures' psychometric properties, (2) to examine existing measures' interrelations as well as their relations with external correlates (i.e., personality traits/ mood symptoms/ affect), (3) to select a reduced number of items (i.e., in domains less confounded with personality traits/ mood symptoms/ affect and with less redundancy) to be used in the study's phase two, and (4) to explore the overall structure of this comprehensive construct both within psychosocial functioning measures and in conjunction with personality traits / mood symptoms/ affect. Thus, the following data analytic procedure was followed: (1) examined the basic psychometric properties (e.g., internal consistency coefficients) of all measures; (2) examined the measures' interrelations, (3) eliminate psychosocial functioning domains with correlations $\geq |.70|$ with personality traits, mood symptoms, and affect measures, and (4) factor analyze functioning measures (principal-axis factor analysis, varimax rotation) to identify items for elimination that either do not represent the structure well or that are overly redundant with other items. After a reduced number of psychosocial functioning items was selected, the structure of the broad psychosocial functioning construct was examined using both the original and factor-analytically derived (sub)scales.

Internal Consistency Reliability

Mean scores, ranges, Cronbach's alphas, and average inter-item correlations (AICs) for all measures and their subscales are reported in Table A2. Alpha coefficients ranged from .61 to .92 for psychosocial functioning measures. Those of the SWLS and subscales of the SIPP-SF and PWB all were > .80, as were 5 of 7 WHODAS-II, 5 of 11 MDPF, and one WHOQOL-BREF subscale, versus < .80 but > .60 for the SFQ and the remaining WHODAS-II, WHOQOL-BREF, and MDPF subscales. The lower internal consistency reliabilities stemmed to a large degree from short scale length, as the AICs for all (sub)scales except the SFQ (.21), SIPP-SF Social Concordance (.29) and WHOQOL-BREF Environment (.28) were > .30. This reflects that the SFQ is comprised of a broad range of items tapping multiple domains of functioning that are moderately intercorrelated. The MDPF's two higher order scales—non-cooperativeness and non-coping—had alphas/AICs of .85/.36 and .83/.33, respectively, and correlated .42. The BFI, IDAS, and PANAS had good alpha coefficients (range .73 ~ .91).

Correlations among Psychosocial Functioning Measures

Within-Psychosocial Functioning Categories. Correlations among psychosocial functioning measures are presented in Tables A3 through A8. Table A3 shows correlations among daily functioning measures. The mean correlation among all daily functioning measures was .42 (all mean correlations were computed after *r*-to-*z* transformation and then reconverted to *r*s). The SAS and SFQ correlated the highest (r = .63) suggesting that the SAS and SFQ total scores reflect a similar construct (i.e., global general functioning). Average correlations of the WHODAS-II scales with the SAS and SFQ were close in magnitude: *rs* = .41 and .44, respectively, with the lowest correlations

being with the WHODAS-II basic functioning domains (i.e., self-care, mobility; *rs* ranging .18 ~ .28).

Table A4 shows correlations within personality functioning measures. The overall mean correlations were .37 within MDPF scales and .59 within SIPP-SF scales, indicating that the MDPF scales were more diverse in content than the SIPP-SF scales. Specifically, about 50% of the within-SIPP-SF correlations were over .60 and Self-Control and Identity had especially high correlations with the remaining SIPP-SF scales (Mean r = .62). Within the MDPF scales, the correlation range was wider: rs = .01 ~ .65. The MDPF Impulsivity and Instability had lower correlations with other MDPF scales (Mean rs = .30 and .33, respectively), whereas the Disagreeableness, Uncaring to Others, and Self-Defeating scales had two or three correlations over .60. The mean correlation between the MDPF and SIPP-SF scales was .45. SIPP-SF Identity correlated over .60 with four MDPF scales assessing internalizing dysfunction (i.e., Self-Defeating, Lack of Self-Direction, Ineffectiveness, Pessimism) and SIPP-SF Social Concordance related strongly to the MDPF Disagreeableness (r = .71).

Table A5 shows correlations among quality of life/ satisfaction measures. Correlations among all measures (and their scales) were .46. All average within-measure as well as between-measure correlations were in the moderate range (.44 ~ .55: WHOQOL-BREF, .55; PWB, .52; WHOQOL-BREF with SWLS, .54; WHOQOL-BREF with PWB, .44; and SWLS with PWB, .49). Notably high correlations were PWB Self-Acceptance scale with WHOQOL-BREF Psychological (r = .74) and SWLS (r = .72) indicating that one's level of self-acceptance is strongly correlated with life satisfaction and enjoyment.

Across-Psychosocial Functioning Categories. Next, correlation patterns across different psychosocial functioning categories were examined (Tables A6-A8). Regarding correlations between daily functioning and personality functioning measures (overall Mean *r* = .43; Table A6), the WHODAS-II correlated less with both MDPF (*r* = .23) and SIPP-SF (*r* = .35) than did the SFQ (Mean *r*s = .30 and .60, respectively) or SAS (Mean *r*s = .45 and .54, respectively). The WHODAS-II basic functioning scales (i.e., mobility, self-care) displayed the lowest correlations (all < .25), indicating that how one handles basic daily functioning is relatively independent from personality functioning. The SFQ and SIPP-SF correlated .60, which is greater than most of the within-SIPP-SF correlations. In particular, the SFQ correlated .67 and .69 with SIPP-SF Identity and Relations, respectively, indicating that SFQ overlaps most with the SIPP-SF in terms of relationship dysfunction (e.g., SFQ: "I get on well with my family and other relatives") and subjective distress, due to affective content in the items (e.g., SFQ: "I find my tasks at work and at home very stressful").

Correlations between daily functioning measures and quality of life/ satisfaction measures are reported in Table A7 (overall Mean *r* = -.43). The SFQ and SAS had higher correlations with the quality of life/satisfaction measures (*rs* range = -.46 ~ -.54:) than did the WHODAS-II (*rs* range = -.37 ~ -.25). Specifically, Mean *r*s SFQ/ WHOQOL-BREF, -.53; SFQ/ SWLS = .53; SFQ/ PWB, -.53; SAS/ WHOQOL-BREF, -.54; SAS/ SWLS = .56; SAS/ PWB, -.46; WHODAS-II/ WHOQOL-BREF, -.37; WHODAS-II/ SWLS, -.25; WHODAS-II/ PWB, -.27. Once again, the basic functioning scales of self-care and mobility displayed the lowest correlations.

Of the WHOQOL-BREF scales, the SFQ and SAS correlated most strongly with the WHOQOL-BREF Psychological domain scales (Mean *r* = .57), although the other mean correlations were also all above .50. Of the PWB scales, Environmental Mastery had the highest correlation with the SFQ and SAS (Mean *r* = .65), whereas Autonomy (Mean *r* = .30) and Personal Growth (Mean *r* = .31) were among the lower ones. These results reflect that the PWB scales range from those that are more closely related to daily functioning level to those that reflect subjective well-being. The WHOQOL-BREF, however, showed consistent moderate relations with daily functioning measures, indicating that it is more focused on quality of life/ satisfaction associated with successful daily functioning behaviors.

Correlations between personality functioning measures and quality of life/satisfaction measures (Table A8; overall Mean *r* = -.40) revealed that the SIPP-SF had slightly higher correlations with all of the quality of life/ satisfaction measures (Mean *rs* ranged -.49 ~ -.41) than did the MDPF (Mean *rs* ranged -.39 ~ -.32). Specifically, Mean *rs*: WHOQOL-BREF/ MDPF, -.32; WHOQOL-BREF/ SIPP-SF, -.44; SWLS/ MDPF, -.33; SWLS/ SIPP-SF,-.41; PWB/ MDPF, -.39; PWB/ SIPP-SF, -.49). Thus, the SIPP-SF scales are not only more similar in content (to each other) than those of the MDPF, but also they contain more subjective-evaluation content than do the MDPF scales.

In sum, both within- and between-functioning domain correlations were generally in the moderate range with the exception of the WHODAS-II basic functioning scales (i.e., Getting Around, Self-Care) whose correlations were always in the lower range. Even within the same daily functioning domain, these two basic functioning domains

correlated around .25 (range = .18 to .28) with SFQ and SAS, although they correlated equally strongly with other WHODAS-II scales. The SFQ and SAS, on the contrary, were moderately correlated with all personality functioning measures as well as quality of life/satisfaction measures. These moderate correlations indicate that the SFQ and SAS are global functioning measures encompassing both personality and affect as well as general functioning.

Correlations between Psychosocial Functioning and Personality/Mood Symptom Measures

BFI. Correlations between psychosocial functioning measures and normal personality traits are shown in Table A9. Several points were notable about these data. First, correlations between daily functioning measures (i.e., SAS, SFQ, WHODAS-II) and the BFI revealed that (1) the SAS and SFQ had the highest correlations with N (r = .40 and .41, respectively) and the second highest correlations with C (r = -.36 and -.33, respectively), (2) the WHODAS-II had the highest average correlation (r = .27) with C and the second highest with N (r = .19), and (3) the BFI O is virtually uncorrelated with daily functioning domains (rs ranging from -.13 ~ .02). The BFI N and C were moderately related with measures assessing daily functioning, especially those assessing more comprehensive and less basic daily functioning aspects. Basic functioning domains, such as self-care and mobility as assessed by the WHODAS-II, were more strongly linked to C than N, whereas the reverse was true for the more global measures.

Secondly, the personality functioning measures (i.e., MDPF, SIPP-SF) both correlated moderately with A (Mean r = -.35 and -.38 with MDPF and SIPP-SF, respectively). The SIPP-SF scales also had moderate average correlations with C (Mean

r = -.39), which was affected by a high correlation between SIPP-SF Responsibility and BFI C (r = -.68); with this scale removed, the average correlation dropped to .31, which is essentially equivalent to the MDPF average of .29, and also highly similar to that of the WHODAS-II. The MDPF Instability scale is also correlated .73 with N. Due to this high correlation, MDPF Instability subscale will be dropped from the final factor analyses. With this scale removed, the average correlations of the MDPF and SIPP-SF scales with N are .29 and .36, respectively, thus falling in between that of the SAS/SFQ and the WHODAS-II.

Finally, quality of life measures' (i.e., WHOQOL-BREF, SWLS, PWB) highest mean correlations were with N (Mean *r* = -.35, -.35, and -.31 with WHOQOL-BREF, SWLS, and PWB, respectively), though with a wide range from |.18| [PWB Purpose in Life] to |.51| [PWB Environmental Mastery]). Mean correlations with A (Mean *rs* = .18 to .20 range), C (Mean *rs* = .25 to .28), and E (Mean *r*s = .25 to .28) were similar across these measures, although they varied widely across subscales. Interestingly, O also had moderate correlations with PWB Autonomy (*r* = .36) and Personal Growth (*r* = .45), and averaged .26 across all PWB subscales.

In summary, the highest correlations of the daily functioning and quality of life measures were with N (Mean *r* = .24) and C (Mean *r* = .29), whereas personality functioning measures had the highest correlations with A (Mean *r* = .37), with N and Cs correlated slightly less (Mean *r*s = .35 and .33, respectively), though these correlations were actually slightly higher, in an absolute sense, than with the other two types of measures (QOL measures' Mean *r*s were .34 and .28, respectively, with N and C).

Finally, two PWB scales (i.e., Autonomy, Personal Growth) had moderate correlations with Os, and the mean correlation for the PWB as a whole with O was .26.

These differential correlation patterns suggest how these measures incorporate and are related to slightly different aspects of normal personality dimensions. Moreover, the .20 to .30 correlations of N and C with the WHODAS-II scales—as well as the .05 to .15 correlations with the other personality measures—may represent the lower limit of inherent correlations between personality and daily functioning. In the overall R^2 analyses which was conducted to estimate how much variance the big five traits, taken together, explained in each type of functioning measure, personality functioning measures had the greatest variance explained (R^2 = .41 and .36 for SIPP-SF and MDPF, respectively) followed by the SAS and SFQ (R^2 = .30 for both measures), quality of life/ satisfaction measures (R^2 = .29, .22, and .21 for PWB, WHOQOL-BREF, and SWLS, respectively), and the WHODAS-II (R^2 = .14). Once again, the WHODAS-II established the lower boundary of the magnitude of relations between functioning and personality traits, whereas the personality functioning measures suggested the higher boundary.

IDAS. Next, correlations between psychosocial functioning measures and depressive / anxiety symptoms were explored (Table A10). First, the daily functioning measures' (i.e., SAS, WHODAS-II, SFQ) highest average correlations were with IDAS General Depression scale (Mean *rs* = .61, .43, and .58 with SAS, WHODAS-II, and SFQ, respectively). This trend continues at the WHODAS-II subscale level, with a few minor exceptions (e.g., WHODAS-II Getting Along with People subscale's highest correlation was with the IDAS Social Anxiety scale, r = .51 rather than General Depression, r = .45).

It is noteworthy that—as was the case with the personality measures—the WHODAS-II correlations were consistently lower than those with either the SAS or SFQ.

The personality functioning measures—MDPF and SIPP-SF—showed highly similar correlation ***patterns*** with the IDAS subscales, but the SIPP-SF consistently was slightly more highly correlated (Mean *r* difference = .15, range = .07 to .23) with these scales than was the MDPF, likely stemming from the greater subjective-evaluation variance in the SIPP-SF noted earlier. The SIPP-SF also had its highest correlations with General Depression (Mean *r* = .53) whereas the MDPF subscales' highest average correlation was with Well-Being (Mean *r* = -.38).

The quality of life/satisfaction measures—WHOQOL-BREF, SWLS, and PWB—again correlated the most highly with the IDAS General Depression (WHOQOL-BREF: Mean *r* = -.54) and Well-Being (SWLS and PWB: Mean *r*s = .58 and .52, respectively) scales. These differential patterns may indicate the extent to which measures assess absence / presence of depression versus absence / presence of well-being, which are of course related, but differ in emphasis.

Comparing across the different types of functioning, and examining the specific (WHODAS-II) and global (SAS and SFQ) daily functioning measures separately, it is noteworthy that the global functioning measures consistently were the most strongly correlated with the IDAS scales, with the exception of Well-being, which correlated most strongly with the quality of life/ satisfaction measures, whereas the MDPF was consistently the least correlated, again with the exception of Well-being, which correlated least strongly with the WHODAS-II scales. Thus, whereas the MDPF, a personality functioning measure, not surprisingly, was more strongly correlated with personality trait

scales, the more traditional functioning measures were more strongly correlated with this measure of psychopathology. The slightly different correlational *pattern* between the MDPF and the SIPP-SF is notable. The MDPF scales have varied level of correlations suggesting that different scales contain different level of psychopathology/ mood incorporated into items. For example, the MDPF Non-empathic and Uncaring to others had particularly low correlations with the IDAS.

PANAS. The correlational results between psychosocial functioning measures and a positive and negative affect measure, the PANAS, are shown in Table A11. All psychosocial functioning measures were correlated on average in a similar range with both PA and NA with all mean *rs* ranging between |.25| ~ |.44|, although several subscales' correlations fell below |.20|, specifically, WHODAS-II Self-Care and Life Activities, and MDPF Impulsivity correlated with PA -.17, -.15, and -.18, respectively. These three scales correlated at a relatively low range with NA as well, although none were below |.20|. Generally speaking, impairment in basic functioning was less related with the past 2 week's mood—both positive and negative—when compared to other types of functioning, whereas quality-of-life measures were most strongly correlated with PA and global daily (poor) functioning with NA.

Overall, comparing the psychosocial functioning measures' correlations with these external variables, the BFI (personality traits), IDAS (psychopathology), and PANAS (mood/ affect) results showed that (1) the daily functioning measure WHODAS-II had the lowest mean correlation with the BFI (Mean r = .16) compared to the IDAS (Mean r = .31) and PANAS (Mean r = .29), (2) both personality functioning measures showed the highest mean correlation with the PANAS (*rs* = .35 and .41 with the MDPF

and SIPP-SF, respectively); however, the MDPF's next highest correlation was with the BFI (Mean *r* = .29), whereas the SIPP-SF's was with the IDAS (Mean *r* = .38), and (3) quality of life/ satisfaction measures had the highest correlations with the IDAS (Mean *rs* = .38 and .39 with the WHOQOL-BREF and PWB, respectively) and the lowest with the BFI (Mean *rs* = .23 and .26 with the WHOQOL-BREF and PWB, respectively).

Generating a Refined Item Pool for Phase 2 Use

Next, each psychosocial functioning measure was factor analyzed separately at the item level with the goal of generating a reduced and refined psychosocial functioning item pool. In all of the analyses, a principal-axis factor analysis with varimax rotation was conducted. Items were selected by first determining the most appropriate factor structure for each measure and selecting representative items from each factor. In general, the following four principles were used to select items: (1) factor loading > .40; (2) no cross-loadings > .40; (3) correlations with other selected items > .20 and <.70, to control the range of inter-item correlations; and (5) item content as a whole representative of the factor.

SAS (Weissman et al., 1971). The SAS could not be factor-analyzed at the item level due to legitimately missing values as people function in various domains in life (have children vs. no children; work vs. stay at home). Thus, no items were eliminated from SAS and the total score of this measure will be used in following analyses.

WHODAS-II (World Health Organization, 2000). The WHODAS-II without the four work/school items (which also were frequently legitimately missing due to individuals' different statuses as employees or students) were factor analyzed. First, six factors were extracted using the remaining 32 items plus the two global questions, to

determine whether the original WHODAS-II subscales would emerge, as suggested by the measure's development. Although the six-factor structure was generally a clean solution, explaining 97.4% of the common variance and 51.6% of the total variance, later factors were small and so extracting fewer factors likely would yield psychometrically stronger factors. Although there was a very large general factor accounting for just over half the common variance and about one-quarter of the total variance, subsequent factors were large enough to be considered (eigenvalues for the first 8 factors were 9.27, 2.55, 2.15, 1.55, 1.12, 0.91, 0.60, 0.43). Thus, the two- through five-factor solutions were examined.

The two-factor solution explained 65.7% of the common variance (34.8% of the total variance). Items assessing Difficulties handling household duties/ chores and addressing Getting along with others and Understanding/ Communicating loaded most strongly on the first factor, whereas the second factor's high loaders were items regarding Health-related life interference and Mobility items. Basic self-care items split between the two factors. Thus, each factor's content was diverse and it appeared that additional factors should be extracted.

In the three-factor solution (explaining 77.6% of the common variance, 41.1% of the total variance), the items were reorganized such that the first factor contained items assessing Self-care, Mobility, Understanding/Communicating, and Getting along with others, the second factor's items were those focused on Health-related life interference, and the third factor's items addressed Difficulties handling household duties/chores. Thus, the first factor in this solution remained somewhat heterogeneous.

In the four-factor solution (explaining 86.2% of the common variance, 45.6% of the total variance), the large first factor of the three-factor solution split into two separate factors: Getting along with others and Understanding/Communicating formed the first factor and basic functioning pertaining to self (i.e., Self-care, Mobility) emerged as the third factor. The second factor was Health-related life interference, and the final factor was Household duties (explaining 17.6% of the common variance). The first through fourth factors explained 24.7%, 22.9%, 20.9% and 17.6% of the common variance, respectively.

Finally, the five- factor solution was formed by the four-factor solution's first factor splitting into Getting along with others and Understanding/Communicating to form the fourth and fifth factors. The other three factors were Health-related life interference, basic Self-care, and dealing with Household duties, respectively. This solution explained 92.4% of the common variance (48.9% of the total variance).

The three- , four-, and five-factor solutions were each meaningful and interpretable; however, the four-factor solution was chosen instead of the three-factor structure because forming a separate interpersonal factor was deemed meaningful. Further separation of factors into a five-factor solution was determined as not contributing significant additional information.

Within this factor structure, the aforementioned principles were used to select 17 final items from the WHODAS-II (Table A12). As most of the items were psychometrically sound, there was leeway to consider content factors. The WHODAS-II was formed originally with six homogenous item clusters (HICs), so the decision regarding which particular item to select (e.g., "ability to have conversation" vs. "ability

to understand" in Understanding / Communicating HIC) was less critical than extracting a roughly equal proportion (~50%) from each of the six HICs (i.e., the original WHODAS-II factors) that constituted the four-factor solution.

SFQ (Tyrer et al., 2005). The SFQ is an 8-item measure, and the factor analysis suggested one large general factor. Therefore, measure was kept as is.

MDPF (Parker et al., 2004). Parker and colleagues proposed two higher order and 11 lower-order factors of MDPF. Eigenvalues for the first 12 variables of this measure were: 14.65, 5.35, 3.13, 2.20, 1.82, 1.10, 0.96, 0.84, 0.79, 0.74, 0.63, 0.54, suggesting that a maximum of six factors could be extracted, so the two- through six-factor solutions were examined.

In the two-factor solution (explaining 59.3% of common variance and 30.8% of total variance), the factors were composed, respectively of scales assessing internalizing (e.g., Instability under stress, Pessimism, Self-defeating) and externalizing (e.g., Uncaring to others, Disagreeableness, Non-empathic) dysfunction. These two factors mapped well onto the original non-coping and non-cooperativeness higher factors proposed by Parker et al. (2004). This was a clear solution with very few cross-loadings. However, more factors were extracted to determine whether these two broad factors could be further differentiated.

In the three-factor solution (explaining 77.6% of the common variance and 41.1% of the total variance), an Impulsivity factor separated out from the Internalizing dysfunction scale to form a third factor with Externalizing and Internalizing dysfunction forming the first and second, respectively. When four factors were extracted (explaining 75.1% of the common variance and 39.0% of the total variance), the first three factors

continued to be Externalizing and Internalizing dysfunction and Impulsivity, but Instability under stress separated off from Internalizing dysfunction to form a fourth factor. These four factors explained, respectively, 26.8%, 25.3%, 11.5%, and 11.5% of the common variance.

Finally, when five- and six-factor solutions were explored, the Internalizing dysfunction factor became further differentiated. In both solutions the first four factors were identical to the four-factor structure (i.e., Externalizing dysfunction, Internalizing dysfunction, Impulsivity, and Instability); however, in the five-factor solution the final fifth factor was an amalgamation of multiple scales' items (e.g., ineffectiveness, pessimism, lack of self-direction items) and was difficult to interpret. In the six-factor solution Inflexibility and Fail to learn from experience formed the last two factors. However, these last two factors were quite small and their extraction did not appear to add meaningful additional variance.

Therefore, the four-factor solution was selected for inclusion in the analyses (see Table A13). Thirty representative items were selected from this four-factor structure using the principles articulated previously. Also, to select a good representation of items, at least 50% of items from scales that primarily comprised the factors were selected.

SIPP-SF (Verheul et al., 2008). The SIPP-SF items were factor analyzed and the first 10 eigenvalues were: 16.92, 2.83, 2.50, 2.05, 1.48, 1.15, 0.83, 0.78, 0.69, and 0.57. Reflecting the high scale intercorrelations seen previously, there clearly was a large, general factor, but additional factors appeared to have sufficient variance to warrant consideration, and Verheul and colleagues posited a five-factor solution, so solutions from two up to six factors were examined. In both the one- and two-factor solutions

items from one or more scales loaded across different factors and there were many cross-loading items, so these solutions seemed underidentified.

In the four-factor solution, the Identity items coalesced to form the first factor along with some Relations items, the Responsibility items formed a clean second factor of their own; the third factor had items primarily from Social Concordance and Self-Control, and the final factor also was comprised of Relations items. However, a review of the Relations items loading on the first and fourth factors revealed a clear distinction, with those loading on the final factor representing difficulty expressing affection or getting close to people, whereas those on the first factor (which contained such Identify items as having a low opinion of oneself) were focused on how one felt viewed by others (e.g., hard to believe others love me), so they easily could be considered "relational identity" items, thus clarifying the meaning of the first factor. Four additional Self-control items dispersed across other factors in ways that made conceptual sense. For example, "often act impulsively" factor with the Responsibility items, whereas "do things I regret" factored with Identity items such as "have a low opinion of myself." This solution explained 77.0% of the common variance (43.0% of the total variance), with the four factors accounting for 23.4%, 20.7%, 20.4%, and 12.5% of the common variance, respectively.

Of interest for the five-factor solution, which explained 81.7% of the common variance and 43.0% of the total variance, was the question of the extent to which it would reflect the instruments' five scales. Although Responsibility, Social Concordance, and Relations items formed the second through fourth factors, respectively, Identity items split between the first and fifth factor, joined by Self-control items on the first factor. In

the six-factor solution, which explained 83.5% of the common variance and 44.9% of the total variance, Responsibility, and Relations each formed their own factor, but the Identity, Social Concordance, and Self-control items divided across factors, suggesting overextraction. Beyond six factors, the solutions became more difficult to interpret.

Given that the five-factor solution did not clearly replicate the originally proposed five-factor solution (Verheul et al., 2008), and the principles described earlier did not indicate a clear choice between the four- or five-factor solutions, the four-factor solution was chosen balancing psychometric and conceptual reasons (see Table A14). Because the Self-control scale items consistently failed to form a clear factor, perhaps because these items represented different domains in which self-control is manifested, it seemed appropriate to allow them to be interspersed across different factors (as in the four-factor solution) rather than allowing the Identity items to split across factors (as in the five-factor solution). To develop a reduced item pool from this solution, all items that loaded < .40 and had no cross-loading < .40 were selected.

WHOQOL-BREF (Bonomi et al., 2000; WHOQOL Group, 1998). Examination of the eigenvalues (the first five were: 7.83, 1.26, 0.97, 0.63, 0.60), suggested that either a one- or two-factor solution likely would be best, with a maximum of three factors, so the one- through three-factor solutions were examined. The one-factor solution explained 70.5% of the common variance (30.1% of the total variance) and had loadings ranging from .32 ~ .73 with the higher loading items reflecting psychological enjoyment/satisfaction and lower loading items being from the Physical (e.g., necessity of medical treatment) and Environment (i.e., satisfaction with transportation and health service access) scales.

In the two-factor solution (see (Table A15), which explained 81.9% of the common variance and 35.0% of the total variance, the first factor was comprised of items from Psychological, Physical, and Social domains, reflecting individuals' health state, whereas only Environmental items loaded on the second factor. These factors explained 43.7% and 38.2% of the common variance, respectively. In the three-factor solution (explaining 90.6% of the common variance and 38.7% of the total variance) the Physical items split off and formed a third factor. However, there were a number of cross-loading items in this solution. Therefore, the two-factor solution was chosen, and all items that loaded < .40 and had no cross-loading < .40 were selected.

SWLS (Diener et al., 1985). This 5-item measure was kept in its current form given that it is already a very short measure and the factor analysis indicated a large general factor with all items loading .60 ~ .87.

PWB (Ryff, 1985). Previous factor analyses of the PWB indicated a six-factor structure, and examination of the eigenvalues (first 10 eigenvalues: 15.0, 2.47, 2.11, 1.83, 1.24, 1.13, .97, .72, .67, .64) indicated a large first factor, a break in the scree plot at four factors, and suggested that a maximum of six factors may be extracted. Therefore, the two- to six-factor solutions were examined.

The two-factor solution explained 63.9% of the common variance and 32.3% of the total variance. It was formed by Autonomy items forming the second factor and all other items loading on the first factor which, therefore, was rather undifferentiated with several items loading < .30. The three-factor solution (see Table A16) was formed by the first factor breaking into two factors, one with Self-Acceptance, Positive Relations, and Environmental Mastery, and a second formed by Purpose in life and Personal growth

items; these were labeled Positive engagement (both with self and others) and Actualization, respectively. Autonomy items formed the final factor. The three factors explained 32.3% , 23.3%, and 16.1% of the common variance, respectively.

In a four-factor solution (explaining 78.3% of the common variance and 39.6% of the total variance), the items reorganized such that the four factors were formed, respectively by the items from (1) Environmental Mastery and Purpose in Life, (2) Positive Relations with Others and Self-Acceptance, (3) Personal Growth, and (4) Autonomy. In the five-factor solution (explaining 82.8% of the common variance and 41.9% of the total variance) Positive relations and Self-acceptance split into two factors, whereas the other factors remained the same. Finally, the six-factor solution replicated the original factor structure, explaining 87% of the common variance and 44% of the total variance.

The three-factor solution was selected for item generation, despite the replication of the original six-factor solution because it was meaningful yet more parsimonious, whereas the item combinations in the four- and five-factor solutions were more difficult to interpret. Using the three-factor solution, 33 items were selected, about half the number of items from each scale that met the item selection criteria described previously, on the basis of item content diversity.

Revised Measures' within- and between- Measures

Correlation Analyses

Correlations among the revised psychosocial functioning measures are presented in Table A17. The mean correlations both within and between measures were similar in magnitude to those of the original measures, as shown in Table A18. Differences

between the original and revised within-measure correlations were < .09, whereas those between the original and revised between-measure correlations all were < .07 difference. As before, the correlations were all in the moderate range, with the WHODAS-II displaying lower correlations with personality functioning, especially the MDPF (*r* = .22), as well as with the PWB (*r* = -.23). The revised personality functioning and quality of life/ satisfaction measures were mostly moderately correlated with each other, although several correlations were elevated (i.e., > .70): WHOQOL-BREF Health with SIPP-SF Identity *r* = -.73; PWB Positive Relations with SIPP-SF Identity *r* = .83; and MDPF Internalizing Dysfunction with PWB Positive Relations *r* = -.73.

Revised Measures' Correlations with Personality, Psychopathology, and Affect Measures

The revised measures' alphas, AICs, and correlations with personality (BFI) and mood (IDAS) and affect measures (PANAS) also were examined (Table A19). All internal consistency (alpha) coefficients were greater than .75 and AICs were in .30 ~ .59 range with the one exception of the WHODAS-II Daily Tasks, which had 2 items and AIC of .79. Regarding correlation patterns, WHODAS-II had the highest mean correlation with Conscientiousness (*r* = -.24) followed by Neuroticism (*r* = .18), which was also the pattern found in the original measures. Both personality functioning measures were correlated with Agreeableness (*rs* = -.36 and -.37 for MDPF and SIPP-SF, respectively), Neuroticism (*r*s = .40 and .32 for MDPF and SIPP-SF, respectively), and Conscientiousness (*r* = -.35 and -.41, respectively). Again, this pattern was similar to that with the original measures. The MDPF's higher association with Neuroticism was driven mainly by the MDPF Instability Under Stress scale (*r* = .70); when this scale was

excluded the .40 correlation dropped to .27. Similarly, the SIPP-SF's higher correlation with Conscientiousness was primarily due to SIPP-SF Responsibility (r = -.67); without this scale the mean correlation was reduced to r = -.28.

Quality of life/satisfaction measures both showed the highest correlations with Neuroticism (rs = -.40 and -.30 with WHOQOL-BREF and PWB, respectively). However, the WHOQOL-BREF's second highest correlation was with Conscientiousness (r = .34) whereas the PWB associated with Extraversion (r = .30, the same as with Neuroticism) and also related moderately to Openness (r = .29), as also was found with the original measures.

Overall R^2 analyses indicated that the WHODAS-II was least explained by the five personality traits (R^2 = .11), and the SIPP-SF had the greatest explained variance (R^2 = .39). Again, the explained variance level was similar in magnitude to that of the original measures. Thus, in terms of relations with the BFI, the revised measures followed the original measures pattern.

The revised measures' associations with the IDAS are presented in Table A20. As did the original measures, the revised measures showed the highest correlations with the IDAS General Depression and Dysphoria (rs ranged |.38| ~ |.62|). Exceptions were with the PWB and WHOQOL-BREF, where IDAS Well-Being showed either the highest (r = .51 with PWB) or second highest associations (r = .59 with WHOQOL-BREF), which was also found in original measures.

Revised measures' correlations with the PANAS also were similar in pattern and magnitude to those of the original measures (Table A21); that is, the past two-weeks affect level was related moderately to the revised psychosocial functioning measures.

With the WHODAS-II and SIPP-SF, negative affect had higher associations (mean *rs* = .33 and .44 for WHODAS-II and SIPP-SF, respectively) than positive affect. The quality of life/ satisfaction measures showed higher association levels with positive affect (mean *rs* = .46 and .44 for WHOQOL-BREF and PWB) than negative affect, which was a pattern also found in the original measures.

Factor Analyses

To understand the structure of the broad construct of psychosocial functioning, factor analyses were conducted with all of the measures. In order to examine the psychosocial functioning construct reasonably independently from personality, mood, and affect, MDPF Instability was not included, because it correlated .73 with BFI N. No other measures' (sub)scales correlated over |.70|. The factor structure was examined twice, first using the original measures' (sub)scales and then the factor-analytically derived (sub)scales to ensure that the simplification had not altered the basic structure of the domain. In all of the analyses, principal-axis factor analyses with varimax rotation were conducted.

In factor analyses using the original measures, the complete set of functioning (sub)scales were included. Of note, the 11 lower order scales of MDPF (and not the 2 higher order scales) were used and the MDPF Instability was excluded due to its high correlation with BFI Neuroticism. Finally, the WHODAS-II Work/School scale was excluded due to legitimately missing values which were thus excluded from forming revised item set as well.

Factor Analysis of the Original Psychosocial Functioning Measures. In this analysis (eigenvalues listed in Table A22), there was a very large general factor, accounting for 67% of the common variance and 40.9% of the total variance. Examination of the scree plot suggested a maximum of 3 additional factors, accounting for almost 25% more of the common variance (10.5%, 8.4%, and 5.8%, respectively). Two- through four-factor solutions were examined. In the two-factor solution a subset of MDPF, SIPP-SF, and PWB subscales broke off to form a second factor characterized by poor social and interpersonal relations (e.g., MDPF uncaring, SIPP [lack of] social concordance, and PWB [lack of] positive relations with others), but the first factor was still quite large and relatively undifferentiated. In the three-factor solution, method variance dominated, with the second factor almost entirely loaded by WHODAS-II subscales and the third factor by MDPF subscales. However, when a fourth factor was extracted, the resulting solution, while still exhibiting some method-variance influence, yielded factors that also afforded a psychological interpretation as well, so this solution, accounting for 92% of the common variance (56.0% of the total variance) is presented in Table A23.

The first factor, accounting for 35.6% of the common variance and 21.7% of the total variance, was loaded most strongly on the high end by measures of positive well-being, quality of/ satisfaction with life, and on the low end by measures of general dysfunction and negativism. However, a number of the personality functioning scales (e.g., MDPF Pessimism) also marked this factor strongly (negatively). About 53% of these variables had cross-loadings on other dimensions, reflecting the fact that the matrix as a whole had a strong general factor. This dimension was labeled Positive Functioning.

All of the WHODAS-II subscales and the two WHOQOL-BREF subscales that reflect physical characteristics—personal and environmental—loaded on the second factor, which accounted for 21% of the common variance and 12.8% of the total variance. The factor represents a dimension of basic functioning related to mobility, self-care, participation in work and society, and physically and environmentally based limitations. This factor was labeled Poor Basic Functioning.

The third and fourth factors, which accounted for 19.3 and 16% of the common variance (11.8% and 9.8% of the total variance), respectively, were comprised of subscales of the MDPF and SIPP-SF—the personality functioning measures — with a few cross-loadings from PWB, a quality-of-life measure. The third factor, which was termed Poor Interpersonal and Social Relationships, was externally focused, with loadings by scales such as uncaring to others, disagreeableness, lack of empathy, poor social concordance, and inflexibility.

Finally the fourth factor, termed Low Self-Mastery, assessed impulsivity, irresponsibility, lack of internal self-control or self-direction, and failure to learn from experience, with cross-loadings from other MDPF and PWB scales, such as MDPF ineffectiveness and PWB [lack of] purpose in life.

Factor Analysis of the Revised Psychosocial Functioning Measures. Next, principal-axis factor analysis with varimax rotation was conducted on the revised measures of psychosocial functioning. Examination of eigenvalues (see Table A24) and scree plot suggested that at most 3 factors should be extracted. In the two-factor solution, basic functioning and personality functioning (e.g., Social concordance, Externalizing dysfunction, Impulsivity) split off from the first factor to form the second factor. The

basic functioning scales (e.g., WHODAS-II Basic Functioning, WHODAS-II Daily Tasks) then split off from the second factor to form a third factor. This two-factor solution explained about 87.5% of the common variance and 47.7% of the total variance. In this final three-factor solution (Table A25), the first factor, which explained 44.7% of the common variance and 24.4% of the total variance, was named Poor General Functioning, and was comprised of global functioning, satisfaction, internalizing dysfunction, poor interpersonal relationships, and the global overall general functioning measures. The second factor explained 28% of the common variance (and 15.3% of the total variance) and was named Poor Personality Functioning. This factor was loaded strongly by indicators of social dysfunction (e.g., lack of positive relations, low social concordance) as well as internal dysfunction (e.g., irresponsibility, impulsivity). The final factor explained 23.3% of the common variance (and 12.7% of the total variance) and was termed Poor Basic Functioning factor, which was formed by WHODAS-II and WHOQOL-BREF factors (e.g., basic functioning, cognitive functioning).

The revised measures' factor structure was not identical to that of the original measures, in part, of course, because reduction in the number of variables resulted in less variance to be explained. Factor analyses of the original measures resulted in a four-factor solution (Positive Functioning, Poor Basic Functioning, Poor Interpersonal/Social Functioning, Low Self-Mastery), whereas in the revised measures' analysis the Poor General Functioning and Poor Basic Functioning factors were retained, but the two personality dysfunction factors that emerged separately in the original measures' factor – Poor Interpersonal/Social Functioning and Low Self-Mastery – combined into a general Poor Personality Functioning. Thus, the revised measures' structure emerged as simpler

without diverging radically from the more differentiated structural framework of the original measures.

Factor Analysis of the Original Psychosocial Functioning Measures Plus the BFI. To explore relations between the structure of psychosocial functioning and personality traits, a principal-axis factor analysis with varimax rotation was conducted on the original functioning measures plus the BFI scales, excluding Openness, given its generally low correlations with psychosocial functioning. The first 12 eigenvalues from this analysis are shown in Table A26. The first factor was a large general factor explaining 62.6% of the common variance and 38.8% of the total variance, and examination of the scree plot suggested a maximum of four factors. Therefore, the two- through four-factor structures were explored . In the two-factor structure, the personality functioning measures formed a second factor with all other measures loading on the first, general factor. The BFI N and C loaded on the first factor, BFI A loaded on the second factor, and E cross-loaded on both (-.27 and -.28, respectively). When three factors were extracted, the basic functioning scales (e.g., WHODAS-II Getting around, WHODAS-II Self-care) split off and formed a separate factor. The BFI N and E loaded on the first general factor, C loaded with the basic functioning scales, and A loaded with the personality functioning scales.

Finally, in the four-factor solution (see Table A27), the personality functioning factor split into two factors. In this solution, the first factor, explaining 35.1% of the common variance (21.7% of the total variance), resembled the analysis without the BFI, with overall functioning and satisfaction plus a few personality functioning scales (e.g., SIPP-SF Identity) having the highest loadings. Both the BFI N and E loaded moderately

on this factor (.47 and -.47, respectively), which was labeled Poor General Functioning. Although the trait scales had the lowest loadings of any markers of this factor (i.e., all the psychosocial functioning measures loaded |.50| or higher), the fact that they do serve to mark the factor provided evidence of the overlap between personality and individuals' general level of functioning.

The second factor explained about 19.2% of common variance (11.9% of the total variance) and was labeled Poor Personal/Social Relationships, with scales such as MDPF Disagreeableness, Uncaring to others, and SIPP-SF [lack of] Social concordance loading most strongly. The BFI A loaded strongly (negatively) on this scale (-.71), as high or higher than some of the personality functioning measure, suggesting that—unlike general functioning, where it seemed most appropriate to say that personality is related to functioning—with personality functioning measures, the distinction was much less clear, and it may be said that personality and functioning variance were intertwined in these measures and this factor. The third factor also explained about 19% of the common variance (11.8% of the total variance) and was comprised of scales from the WHODAS-II and WHOQOL-BREF assessing basic functioning such as mobility, self-care, communication, and satisfaction in these basic domains. No personality factor loaded on this third factor.

Finally, the fourth factor explained about 14.7% of the common variance (9.1% of the total variance) and was labeled Low Self-Mastery. Its highest loadings included SIPP-SF (ir)Responsibility, Impulsivity, [lack of] Self-control, and MDPF Failure to learn from experience. The BFI C loaded strongly (-.66) on this factor, again as or more strongly than some of the personality functioning measures, so as with the second factor,

personality and functioning appeared to be intertwined in the personality functioning measures more thoroughly than was the case with either the general or basic functioning measures. In sum, the two- through four-factor solutions all demonstrated that normal personality traits are interrelated with measures of psychosocial functioning, but to varying degrees, depending on the type of functioning measures. Specifically, personality functioning and personality measures were strongly interrelated, to the point that it was difficult to separate them, whereas basic functioning is largely independent of personality, and general functioning was related to, but not subsumed by personality. Thus, the data supported the notion that psychosocial functioning and personality traits are interrelated, but to varying degrees depending on the particular functioning domain.

Factor Analysis of the Revised Psychosocial Functioning Measures Plus the BFI. When the BFI was included in a principal-axis factor analysis (varimax rotation) along with the revised functioning measures the BFI scales were strong markers of each. The scree again indicated a large general factor explaining about 68% of the common variance, and that up to four factors may be extracted (see Table A28 for the first 12 eigenvalues), so two- through four- factors were examined, and the four factor solution is shown in Table A29.

In the four- factor solution, the first factor explained about 37.8% of the common variance (12.0% of the total variance), and again reflected Poor General Functioning, with BFI N and E as moderate markers of the factor (.48 and -.51 loadings, respectively); quality of life/ satisfaction, and some personality functioning scales were the stronger markers. The second factor, Basic Functioning, explained 20.9% of the common variance (11.6% of the total variance) and, similar to the results with the original measures, none

of the BFI scales marked this factor. The third factor explained 20.3% of the common variance (11.3% of the total variance) and was termed Low Self-Mastery. BFI C loaded -.70 on this factor. Finally, the last factor explained 17.8% of the common variance (9.1% of the total variance) and was termed Poor Personal/Social Relationships. As expected. BFI A loaded strongly on this factor (-.76). Thus, when the personality scales were included in the analysis, the distinction between "internal" and "external" mastery—which could be made with the original, but not the revised, factors—reappeared (see Table A28).

Factor Score Correlations with the BFI, IDAS, and PANAS. Factor scores were obtained for each final factor structure (i.e., original measures and revised measures, with and without the BFI) and the scores were correlated with the BFI, IDAS, and PANAS scales to understand the factors' relations with personality traits, mood symptoms, and affect variables. When the BFI was included in factor analyses, only correlations with the IDAS and PANAS are reported.

Factor Analysis of Psychosocial Functioning Measures Only. Using the original psychosocial functioning measures factor scores, clearly interpretable differential correlation patterns emerged across the associations (see Table A30). First, the BFI N and E were clearly associated with the Positive Functioning factor (*rs* = -.42 and .43 with N and E, respectively), A with the Poor Interpersonal/ Social Relationships factor (*r* = -.63), and C with Low Self-Mastery factor (*r* = -.53). The second, Poor Basic Functioning, factor did not have any meaningful association with the BFI traits. Secondly, associations with the IDAS and PANAS indicated that the Poor Interpersonal/ Social Relationships factor is virtually unrelated to depressive mood and

negative/positive affect in the past 2 weeks. This interpersonal factor appeared to be strongly linked to more stable personality traits rather than to more transient affect or psychopathology symptoms. Thirdly, Positive Functioning, Poor Basic Functioning, and Low Self-Mastery showed strong associations with past-2-week's mood symptoms and affect level. Positive Functioning showed strong relations with both IDAS Well-Being (*r* = .65) and PANAS Positive Affect (*r* = .52); Poor Basic Functioning, although not related to personality traits, showed strong associations with the IDAS General Depression and Dysphoria scales (*r*s = .54 and .53, respectively), and with PANAS Negative Affect (*r* = .37); the Low Self-Mastery factor was most strongly linked with PANAS Negative Affect (*r* = .40).

The revised measures' factor score correlations also showed similar patterns with slight differences due to personality functioning being merged into one factor (see Table A31). Again, the BFI N and E were strongly associated with Poor General Functioning factor (*rs* = .47 and -.43 with N and E, respectively), A and C with Personality Functioning factor (*rs* = -.49 and -.46, respectively), and Poor Basic Functioning did not show any strong associations with personality traits. However, both the Poor Basic Functioning and Poor General Functioning factors were linked with the IDAS and PANAS, with the latter showing somewhat higher correlations (up to -.65 with IDAS Well-being. Poor Personality Functioning factor was less strongly associated with the IDAS and PANAS compared to other two factors (i.e., .20-.30 range).

In sum, these correlation patterns show that interpersonal/ social functioning is strongly related to personality traits, whereas basic functioning ability is virtually unrelated to personality traits. On the other hand, the ability to take care of basic

functioning is related to psychopathological mood symptoms, whereas Positive Functioning was associated with both personality traits and psychopathology symptoms and affect level. Finally, Low Self-Mastery was most strongly associated with personality traits (i.e., Conscientiousness), but also was related to mood symptoms and affect.

Factor Analysis with the BFI. The correlational analyses just reported were re-run, this time using the factor scores that included the BFI scales (minus O) along with the psychosocial functioning measures, except that only the factor score associations with the IDAS and PANAS were examined. The correlation patterns were extremely similar with both the original (see Table A32) and revised measures' factor scores (see Table A33) and the patterns were clearly interpretable. Consistent with previous results, Poor General Functioning and Poor Basic Functioning were strongly associated with the IDAS and PANAS whereas personality functioning factors (i.e., Poor Interpersonal/Social Functioning and Low Self-Mastery) were not, with the exception of Low Self-Mastery showing some correlations with the PANAS Negative Affect and the IDAS General Depression, Dysphoria, and Lassitude.

Summary

The current study shed light on findings regarding psychosocial functioning measures' interrelations, relations with external correlates, and the construct's structure. Commonly used psychosocial functioning measures were generally moderately related with each other but also specific findings such as basic functioning domains (e.g., self-care, mobility) setting the lower level correlations and general functioning domains (e.g., global assessment of daily functioning and satisfaction) setting the higher level relations

were found. Psychosocial functioning construct's structure showed that basic functioning, general functioning, and personality functioning measures form meaningful factors. Relations with external correlates (i.e., personality traits/mood symptoms/affect) indicated that personality traits were closely and differentially related with psychosocial functioning factors: general functioning with the BFI N and E, personality functioning with the BFI A and C, and basic functioning not showing a particular relation. Past two week's mood – assessed by the IDAS – showed that negative mood (e.g., general depression, dyphoria) was significantly related with general and basic functioning levels whereas only weakly related with personality functioning domains. Study 2 presented in the next chapter was designed to examine psychosocial functioning construct in a psychiatric patient sample and to understand the construct's contribution in personality pathology diagnosis. In such context, Study 1's findings regarding psychosocial functioning construct's structure and their associations with personality traits and mood symptoms provide a comprehensive overview.

CHAPTER III

STUDY TWO

Method

Participants

Data were collected on a sample of psychiatric outpatients (*N* = 181). To be eligible for the study, patients had to be 18 years or older and without mental retardation, dementia/delirium, or active psychosis. Recruitment of patients took place in various mental health clinics in Iowa City, including the UIHC Department of Psychiatry, Seashore Psychology Clinic, Mid-Eastern Council on Chemical Abuse (MECCA), and Community Mental Health Center for Mid-Eastern Iowa (CMHC), as well as via word of mouth. Participants were recruited directly (i.e., research assistants sat in waiting rooms and approached participants; research flyers were handed directly to patients during treatment groups) from the clinics. Recruitment flyers also were posted in Seashore Psychology Clinic waiting room as well as across the university campus. Interested participants contacted the research team via email or phone regarding their interest. At that time, participants were asked eligibility questions (e.g., age, current psychiatric treatment). Interested and eligible patients were scheduled for a 2.5 hour appointment at the Department of Psychology, Spence Labs, where they will complete the questionnaires on a computer and were interviewed for approximately 45 minutes. Patients received $25 for their participation.

Data were collected from 185 participants; however, four participants' data were dropped due to obvious invalid responding (*N* = 2 had identical SNAP answers) or ineligibility (*N*=2 were not currently receiving any mental health services); 1 individual

participated twice and the latter data were dropped. Participants' demographic information is provided in Table A34. Participants' mean age was 40.6 (*SD* = 12.3; range = 19 to 76). The sample was mostly female (75%) and Caucasian (81%). A majority (59%) reported their annual income as less than $20,000. About 28.1% indicated holding a full-time job, 20.8% a part-time job, and 30.9% indicated that they were unemployed. About 42.2% reported having at least a college degree education, and 41.7% had some college education. Thus, the sample likely was above average in education for patient samples, as only about one-sixth of the sample had only a high-school education or less. Finally, a majority of the patients were single (41.7%), 24.4% were married or living with a partner, and 22.3% indicated their relationship status as separated, divorced, or widowed.

A majority (~58%) were receiving mental health services at the CMHC (psychotherapy, psychiatric medications, or both), ~36% at the UIHC, and ~6% were in treatment elsewhere (e.g., private practice psychologist or psychiatrist, MECCA, Seashore Psychology Clinic). Finally, according to patient report, a depressive episode and related disorder (e.g., major depressive disorder, dysthymia, bipolar disorder with depressive episode) was the most common diagnosis (*N* = 100) either singly or comorbidly.

Measures

Psychosocial Functioning Measures

Functioning Assessment Scale. The set of refined psychosocial functioning measures generated from Phase 1 of data collection was administered. Measures whose copyright did not permit modification (i.e., WHODAS-II, WHOQOL-BREF) were

administered in their original form; however, only the reduced set of items was used in the analyses.

Psychosocial Functioning Interview. The LIFE-RIFT (Leon et al., 1999) interview was administered, which takes about 30-45 minutes. It was audio-recorded for the purpose of calculating inter-rater reliability. The interview assesses patients' past-month level of functioning regarding four life domains (Work, Interpersonal Relationships, Recreation, Overall Satisfaction) and generates four domain scores. In the Work domain, questions about paid work, housework, and/or schoolwork are asked, depending on participants' life domains. In the Interpersonal Relationship domain, relationship quality with spouse, children, relatives, and friends are asked, as relevant. However, only one score is generated per domain, the worst functioning score across all areas assessed.

Other Measures

Schedule for Nonadaptive and Adaptive Personality—2 (SNAP-2; Clark, Simms, Wu, & Casillas, in press). The SNAP-2 is a factor analytically derived 390-item self-report measure designed to assess personality traits ranging from the normal into the abnormal range. Three broad temperament scales (Negative Temperament, Positive Temperament, Disinhibition) and twelve specific trait scales (Mistrust, Manipulativeness, Aggression, Self-harm, Eccentric Perceptions, Dependency, Exhibitionism, Entitlement, Detachment, Impulsivity, Propriety, and Workaholism) are included, as well as seven validity scales. Psychometric data indicate strong internal consistency in normative adult, student and patient samples (scales' median coefficient alphas ranged from .74 to .92; grand median = .82) and high short-term test-retest correlations: In a community

adult sample, median *r* = .87 for intervals ranging from 7 to 131 days; median = 49.3 days. In a patient sample, median 1-week retest *r* = .81 (Clark et al., in press).

Structured Clinical Interview for DSM-III-R Personality Questionnaire (SCID-II PQ; Spitzer, Williams, & Gibbon, 1987). The SCID-II PQ is a 119-item yes-no format self-report measure of the 10 *DSM-IV* PD diagnoses. The measure includes such questions as "Have you avoided jobs or tasks that involved having to deal with a lot of people?" and "Do you often worry about being criticized or rejected in social situations?" Reported internal consistency coefficient alphas were mainly in the .60 range with three alphas exceeding .70 (Antisocial = .76, Borderline = .75, Avoidant = .80) and two falling below .50 (Paranoid PD = .36, Schizotypal PD = .59) (Ball, Rounsaville, Tennen, & Kranzler, 2001). The SCID-II PQ is more commonly used as a screening tool to determine which of the specific sections of the SCID-II interview to administer. However, the SCID-II PQ also has been shown to have good diagnostic agreement with the SCID-II interview measure, especially when the SCID-II PQ's diagnostic threshold is increased by one (i.e., requiring meeting X+1 number of criteria for diagnosis rather than simply X) to reduce false positives. Kappa agreements were reported at .78, .51, and .55 for Clusters A, B, and C, respectively (Ekselius, Lindström, von Knorring, Bodlund, & Kullgren, 1994). Although the values for clusters B and C are below conventional levels for good reliability, they are consistent with the results found with other measures and appear to reflect limitations in the *DSM* PDs themselves (Clark & Harrison, 2001). In this study, the SCID-II-PQ scores were calculated dimensionally by summing positive answers for each PD, rather than using a specific cutoff score to determine diagnoses.

"Iowa Personality Disorders Screen" (IPDS; Langbehn et al, 1999). The IPDS is a brief, structured PD screening interview, which takes about 5 minutes to administer. The interview was developed as existing "gold standard" PD diagnostic interviews were time-consuming. The IPDS enables researchers to screen quickly for the potential existence of a PD that warrants diagnosis via interview or other more extensive method. Langbehn and colleagues (1999) started with an 11-criterion screening measure and chose 7 final criteria (assessed with 12 questions) that displayed good sensitivity (79%) and specificity (86%) when the Structured Interview for *DSM-IV* Personality Disorders (*SIDP-IV*; Pfohl, Blum, & Zimmerman, 1995) was the reference measure. Trull & Amdur (2001) replicated Langbehn et al.'s (1999) results in a college student sample and reported that the IPDS has good positive and negative predictive power in relation to borderline PD diagnosis using the Structured Interview for *DSM-III-R* Personality (*SIDP-R*; Pfohl, Blum, Zimmerman, & Stangl, 1989) as the reference measure. In this study, individual IPDS items as well as the total score is used (i.e., adding all positive answers to each question) as an indicator of personality pathology severity.

Interviewer Training and Interview Data Coding

Three interviewers conducted the interviews –an undergraduate senior student majoring in psychology, a college graduate with a degree in psychology, and the author. Training was implemented in four stages. (1) The students first attended two 1-hour meetings at which the interview measures were explained and discussed, and the interviews' instructions and content reviewed. (2) The interviewers practiced the interview by role-playing with each other and they received feedback from the author. (3) The interviewers watched the author conduct 3-4 interviews with participants and

rated the interviews along with the author. After each session, ratings were compared and discussed. (4) Interviewers conducted approximately 5 interviews themselves with the author sitting in. After each session, interviewers were provided with feedback, ratings were compared, and discrepancies were discussed. When interviewers were deemed ready, they began conducting interviews on their own and inter-rater reliability coefficients were calculated in approximately 20% of the recordings among three raters.

Results

Data analyses were conducted in four stages. (1) Intercorrelations within and across measures of functioning, personality traits (i.e., BFI, SNAP-2), and PD diagnostic screeners (IPDS, SCID-II-PQ) were examined. (2) Factor analyses were conducted to examine the structure of psychosocial functioning with and without the BFI. (3) Hierarchical multiple regressions were conducted to test whether psychosocial functioning meaningfully explains *DSM*-based PD diagnostic criteria (SCID-II-PQ) as well as general personality pathology severity (IPDS total) above and beyond abnormal personality traits. (4) SEMs were calculated to test three models explaining the relations among abnormal personality traits, psychosocial functioning, and PD diagnosis.

Internal Consistency Reliability

Means, SDs, alpha reliability coefficients, and average inter-item correlations (AICs) for all measures are reported in Table A35. All WHODAS-II and WHOQOL-BREF (sub)scales, three of the four MDPF and SIPP-SF scales, and one PWB scale (i.e., Positive Relations) had reliability coefficients over .80. The SFQ, MDPF Instability under stress, SIPP-SF Relations, PWB Autonomy and PWB Actualization has alphas ranging from .71 to .77. These lower alpha reliabilities resulted from either diverse

content (SFQ and PWB scales' AICs were in the mid .20 range or scale brevity (the 3-item MDPF Instability's AIC = .51).

The BFI and IDAS scales had alphas greater than .75. The BFI's AICs were in the moderate range (.25 - .35), whereas those for the IDAS scales mostly ranged from .35 to .45, although five scales' AICs were ≥ .50, including one outlier, Appetite loss scale (3 items), for which the AIC of .73 indicated highly similar content across items. The SCID-II-PQ's alpha coefficients were variable, ranging from .49 (Obsessive-Compulsive) to .86 (Antisocial) with nine of 12 scales having alpha coefficients below .80, and AICs ranging from .10 (Obsessive-Compulsive) to .32 (Depressive). The low coefficients reflect the diverse item content of these scales. For example, the Obsessive-Compulsive PD questions include such items as "Do you have trouble finishing jobs because you spend so much time trying to get things exactly right?" "Is it hard for you to spend money on yourself and other people even when you have enough?" and "Do you or other people feel that you are so devoted to work (or school) that you have no time left for anyone else or for just having fun?" Finally, the SNAP-2 alpha coefficients are all over .80 with the exception of Workaholism (α =.76), whose AIC was .15, indicating that the scale covers a broad domain. The IPDS and LIFE-RIFT had kappas of 1.0 and .94 respectively. The IPDS is a short, straightforward structured interview measure that minimally involves rater's judgment and thus showed a perfect consistency across raters. The LIFE-RIFT also showed high inter-rater reliability.

Correlations within Psychosocial Functioning Measures

Correlations within psychosocial functioning measures and their (sub)scales are presented in Tables A36 – A40. All mean correlations are presented in Table A41 along

with Phase 1 correlations for easy comparison. The first three tables present correlation patterns within the same functioning domain (e.g., within daily functioning measures) and the latter three across domains.

Among the daily functioning measures (Table A36), the revised WHODAS-II scales were somewhat more strongly intercorrelated (.51 vs. .37) in this patient sample compared to the Phase 1 community/ student sample, a non-uncommon finding. The LIFE-RIFT scales, however, were not as strongly correlated (Mean r = .30). As in the Phase 1 data, the SFQ had moderately strong correlations with the other measures, correlating .47 and .42, respectively with the WHODAS-II and LIFE-RIFT. In contrast, the WHODAS-II and LIFE-RIFT's average correlation of .26 anchored the low end of correlations among the daily functioning measures. This low correlation was driven mainly by minimal correlations between the WHODAS-II Basic Functioning scale and the LIFE-RIFT scales (range = .14 to .24), and between the LIFE-RIFT Relationship scales and the WHODAS-II scales (range = .14 to .27). Thus, some moderate convergent correlations between these two measures were observed: LIFE-RIFT Work correlated .51 with WHODAS-II Daily Tasks; and LIFE-RIFT Satisfaction correlated .40 and .47 with WHODAS Cognitive / Interpersonal and Daily Tasks, respectively.

Within personality functioning measures (Table A37), the MDPF had slightly stronger scale intercorrelations in Study 2 compared with Study 1 (.33 vs. .42 for the MDPG) but the SIPP-SF scale intercorrelations were an identical .52. The two scale sets correlated .48 compared with .44 in Study 1. Several high correlations were notable: MDPF Internalizing Dysfunction correlated .78 and .68 with SIPP-SF Identity and SIPP-SF Responsibility, respectively.

Within the quality of life/ satisfaction measures' intercorrelations, the PWB scale intercorrelations were slightly lower (.43 vs. .48) compared to Study 1 (see Table A38). Correlations across measures ranged widely from *r* = .21 to .75 with an overall mean correlation of .51. The SWLS correlated strongly with both WHOQOL-BREF scales (.63 and .72) whereas the three PWB scales' correlations with these measures varied: for Positive Relations, Mean *r* = .65, for Actualization, Mean *r* = .47, and for Autonomy, Mean *r* = .21, indicating that the PWB scales assess a relatively broader range of life quality/ satisfaction.

Regarding cross-category correlations, those between daily functioning and personality functioning measures are reported in Table A39. The overall mean correlation was .31. The highest average correlations were with the SFQ (Mean *r*s = .56 and .44 for SIPP-SF and MDPF, respectively). Lower correlations were seen with the LIFE-RIFT (Mean *r*s = .20 and .27 for the MDPF and SIPP-SF, respectively), and between the WHODAS-II and MDPF (Mean *r* = .27), whereas that between the WHODAS-II and SIP-SF was more moderate (Mean *r* = .37). The WHODAS-II's lower correlations were again driven by its Basic Functioning scale and, to a lesser extent, Daily Functioning. Lower correlations were expected with the LIFE-RIFT, given that they also reflect method variance. Notably, the MDPF correlations with all of the daily functioning measures were generally lower (Mean *rs* ranging .20 ~ .44) than the SIPP-SF's (Mean *rs* ranging .27 ~ .56).

Table A40 reports correlations among daily functioning and quality of life/satisfaction measures (overall Mean *r* = -.39). The highest means correlations were between the WHOQOL-BREF and SFQ (average *r* = -.68) followed by the SWLS and

SFQ (*r* = -.65). Given the .68 correlation found between the WHOQOL-BREF and SWLS in Table A37, all three measures were shown to have a great deal of overlapping variance. The lowest average correlations were between the PWB and both the LIFE-RIFT and WHODAS-II (Mean *r*s = -.26 and -.30, respectively). The LIFE-RIFT Work and Relationship domains and WHODAS-II Basic Functioning having the lowest correlations of the Daily Functioning measures and, as before, the PWB scales increasing in correlation across Autonomy, Actualization, and Positive Relations. The remaining cross-correlations were all in the moderate range (*r*s = .38 to .53)

Table A40 also provides correlations between personality functioning and quality of life/ satisfaction measures. The overall average correlation was -.42 and all the average correlations between measure pairs were within the narrow range of -.32 to -.48, indicating that these measures were all similarly related. There were several individual correlations worthy of note. PWB Positive Relations correlated -.82 with SIPP-SF Identity and -.71 with MDPF Internalizing Dysfunction, which correlated .78 with each other. The WHOQOL-BREF Health also correlated -.73 with SIPP-SF Identity, and recall that it was strongly correlated with life satisfaction (i.e., SWLS, *r* = .72). Once again, the PWB scales generally showed the pattern of increasing correlations from Autonomy to Actualization to Positive Relations.

Correlations of Psychosocial Functioning Measures
with External Variables

BFI. Correlations between the BFI and functioning measures show general as well as specific relations (see Table A42). Averaged over all self-report measures, BFI N and C show the strongest relations (.47 and .44, respectively), E and A correlate

moderately with functioning (.31 and .32, respectively), and O is largely unrelated to functioning. Other differential patterns also may be noted. For example, excepting the WHODAS-II (Mean *r* = .34), BFI N correlated on average moderately strongly with all functioning measures (Mean *r*s ranged from .46 to .58 with the MDPF and SFQ, respectively), whereas C correlated in a narrow band across all measures, from Mean *r* -.40 to -.49 with the WHODAS-II and SFQ, respectively. BFI A had specifically stronger correlations with the personality functioning measures (Mean *r* = -.41 with both), especially with scales reflecting social, more than interpersonal relations (e.g., *r* = -.62 with MDPF Externalizing Dysfunction and -.57 with SIPP-SF Social Concordance), but had weaker correlations with all other types of functioning (Mean *r*s ranged from -.15 to .26 with the WHODAS-II and SWLS, respectively). Average correlations for E were all < .40, but it correlated differentially with a few measures, particularly ones that are more interpersonally focused (e.g., *r* = -.42 with WHODAS-II Cognitive/ Interpersonal, .53 with PWB Positive Relations, and -.51 with SIPP-SF Identity. Openness consistently correlated minimally with all the psychosocial functioning measures, indicating that this trait is rather independent from how people function in their lives, although it correlated .48 with PWB Actualization which, as seen previously, often shows differential correlations. The BFI scales' correlations with the LIFE-RIFT interview measure were generally lower, reflecting the effect of method variance, ranging from |.09| to |.25|. However, the general pattern was similar in that N, E, and C had the strongest average correlations.

Comparing the Phase 1 and 2 mean correlations, patients showed generally higher correlations for N and C, but not for A or E. A few differences were statistically

significant as follows: N with SFQ (t = -2.54, p < .05), SIPP-SF (t = -2.59, p < .05), SWLS (t = 2.52, p < .05), and PWB (t = 2.39, p < .05), and C with WHODAS-II (t = 2.00, p < .05) and SFQ (t = 2.17, p < .05). However, the differences were of small effect size, with the largest difference for N with PWB (rs = .18 vs .41 in Phase 1 vs. 2, respectively).

IDAS. Examination of correlations between the IDAS and various psychosocial functioning measures (see Table A43) showed that the General Depression and Dysphoria scales had the highest correlations with all psychosocial functioning measures (overall mean rs = .51 and .52, respectively). The strength of association was similar across different functioning measure categories (i.e., daily functioning, personality functioning, quality of life/satisfaction), indicating that the past 2 week's reported mood relates moderately with self-reported psychosocial functioning: Average *rs* ranged from |.38| to |.59|, except the average correlations of the SFQ and WHOQOL-BREF were > |.60|. In addition, three specific scales correlated ≥ .70.

The IDAS Well-Being scale also had fairly consistent (inverse) associations with all functioning measures (range of Mean rs = -.31 to -.65), indicating that a sense of low well being also is related to poor psychosocial functioning. The WHOQOL-BREF Health had the highest correlation with this scale (r = .70) and, in general, the WHOQOL-BREF, SFQ, and SWLS had the highest average correlations with the IDAS scales (Mean rs = .46, .49, and .41, respectively).

Mean correlations in Phase 1 and Phase 2 were compared and only eight (< 10%) were significantly different, all with small effect sizes. Phase 2 correlations were stronger in all cases: SFQ with General Depression (t = -2.08, p < .05), Dysphoria (t = -2.46, p <

.05), and Lassitude (t = -2.23, p < .05); SWLS with Dysphoria (t = 2.02, p < .05), Lassitude (t = 2.43, p < .05), Insomnia (t = 2.02, p < .05), and Traumatic Intrusion (t = 2.39, p < .05); and PWB with Lassitude (t = 2.09, p < .05). Thus, they mostly involved the SFQ and SWLS among the functioning measures and Dysphoria and Lassitude of the IDAS scales, all of which are more general than specific measures.

SCID-II-PQ and IPDS. Examining correlations between SCID-II-PQ PD categories and psychosocial functioning measures (see Table A44), the most noticeable trend was that Borderline personality pathology has the highest correlations with all measures (average *rs* range |.43| to |.58| with self-report measures and average r = .28 with the LIFE-RIFT), with the exception of the satisfaction measures (SWLS and PWB), which correlated most strongly with Depressive personality pathology. Two specific correlations were the strongest for each measure of the pair: SIPP-SF Identity with Depressive personality pathology (r = .77) and SIPP-SF Social Concordance with Borderline personality pathology (r = .66). These results indicate that Borderline personality pathology is associated generally with the greatest functional impairment and Depressive personality pathology with the lowest reported satisfaction and well-being. Moderate relations were shown with Avoidant, Passive-aggressive, Dependent and Paranoid personality pathology (*rs* ~ |.30| to |.50| range). Obsessive-compulsive, Schizoid, and Schizotypal PD categories had low to moderate correlations with psychosocial functioning measures (*rs* ~ |.15| to |.30|). Finally, Histrionic, Narcissistic, and Antisocial personality pathology were only mildly related with functioning impairment (*rs* ~ |.10|), except that interpersonal functioning measures (e.g., SIPP-SF

Social Concordance) correlated in the |.20| to |.40| range with these three types of personality pathology.

Conversely, among the functioning measures, the SIPP-SF and SFQ generally had the strongest average correlations, ~ .40 with personality pathology, although Relations tended to be less strongly related. Finally, the LIFE-RIFT showed similar patterns of correlations compared with other psychosocial functioning scales, yet again the magnitude of the relations was smaller, most likely reflecting the effect of the different methods of information attainment, ranging from |.01| (with Narcissistic) to |.28| (with Borderline) personality pathology.

The IPDS total score (i.e., sum of all positive responses) showed average *rs* in the |.39| to |.55| range with self-report measures, and |.25| with the LIFE-RIFT. Like Borderline PD and several other specific PD, the SIPP-SF and SFQ tended to correlate most strongly with the IPDS total score.

SNAP-2. Correlation patterns between the SNAP-2 and psychosocial functioning measures are reported in Table A45. The SNAP-2 Self-Harm scale had the highest correlations with the LIFE-RIFT (Mean r = |.39|) as well as all the psychosocial functioning self-report measures, except the MDPF (Negative Temperament correlated slightly higher); average correlations ranged from |.44| with the WHODAS-II and MDPF to |.69| with the SWLS. The SNAP-2 Negative Temperament also had moderately high correlations (Mean *rs* |.29| to |.56| with self-report measures and |.21| with the LIFE-RIFT). Positive Temperament showed moderate correlations, particularly with quality of life/ satisfaction measures with average correlations ranging from |.43| to |.48|. The

SNAP-2 correlated on a similar level with daily functioning, personality functioning, and quality of life/ satisfaction domains' measures.

A few specific correlations were notable as they were the highest for both members of the pair: SIPP-SF Identity with Self-harm (r = .75), Social Concordance with Aggression (r = .65), and Relations with Detachment (r = .58); MDPF Instability with Negative Temperament (r = .67) and MDPF Impulsivity with Impulsivity (r = .64); and PWB Autonomy with Dependency (r = -.56) and Actualization with Positive Temperament (r = .57).

Factor Analysis of Psychosocial Functioning Measures
with and without the BFI

Principal-axis factor analysis with varimax rotation was conducted to explore the structure of psychosocial functioning in this patient group using the factor analytically reduced set of scales from Phase 1. The main analytic focus was to examine the structure and its similarity to that which emerged in Phase 1's non-psychiatric sample. Two sets of analyses were conducted: (1) analyses using only the psychosocial functioning measures (both self-report and interview measures), and (2) analyses using all psychosocial functioning measures and the BFI (without Openness due to its low associations with psychosocial functioning measures in general). These analyses were run while excluding scales that correlated greater than |.70| with personality traits (either normal or abnormal) and/or mood symptoms (i.e., SIPP-SF Identity, SIPP-SF Responsibility, WHOQOL-BREF Health, and SFQ).

Factor Analysis without the BFI. The first four eigenvalues were 6.68, 1.37, 0.83, and 0.53, with four factors explaining 98.7% of the common variance (49.6% of the total variance; see Table A46), suggesting a large general factor, a clear second factor, and possibly two additional factors, so the two-through four -factor solutions were examined. In the two-factor solution, which explained 84.3% of the common variance (42.4% of the total variance, the personality functioning and PWB scales, plus LIFE-RIFT Leisure formed the first factor. The second factor was comprised of daily functioning (including the remaining LIFE-RIFT scales) and quality of life/ satisfaction scales.

In the three-factor solution (see Table A47), the first factor was formed by the personality functioning scales and PWB Autonomy and Actualization. The second factor was the quality of life/ satisfaction scales, including the LIFE-RIFT scales, whereas the basic functioning variables split off to form the third factor, along with LIFE-RIFT Work and WHOQOL-BREF Environment, which also strongly loaded on the second factor (loading of -.51 and -.57 on the second and third factors, respectively). This three-factor solution explained 93.1% of the common variance (46.8% of the total variance) and was deemed the most interpretable and meaningful structure, because the last factor of the four-factor solution contained only two markers, indicating overextraction.

Factor Analysis with the BFI. The BFI scales were included in the next factor analyses to explore links between psychosocial functioning and relevant basic personality traits. The eigenvalues (see Table A48) indicated a large first factor, explaining 64% of the common variance, with possibly 3 additional meaningful factors (13.5%, 8.5%, and 6.4%). Again, two-four factors were examined.

In the two-factor solution the first factor (explaining 40.1% of the common variance) was characterized by personality functioning measures, well-being measures, and all four BFI scales, with BFI A and SIPP-SF Social Concordance the strongest markers. The second factor, explaining 37.3% of the common variance was comprised of basic functioning and satisfaction. Thus, the measures split, roughly speaking, into personality (including well-being) and daily functioning (including satisfaction) factors. Moreover, four variables' highest loading was < .40, suggested underextraction.

In the three-factor solution (Table A49), which explained 86% of the common variance (47.2% of the total variance), basic functioning (WHODAS-II plus LIFE-RIFT Work) formed its own (third) factor. The first factor, explaining 29.5% of the common variance, was comprised of internalizing (e.g., instability under stress) and externalizing personality factors (i.e., lack of social concordance, impulsivity), and was anchored at one end by BFI A. The second factor, explaining 28.3% of the common variance included the remaining LIFE-RIFT domains (i.e., Leisure, Relationship, Satisfaction), the well-being scales, SIPP-SF Relations, and BFI N and E. About a quarter of the scales had strong cross-loadings, suggesting that this solution lacked simple structure; moreover, two scales had loadings <.30.

Finally, the four-factor solution (Table A50) was formed by the large first factor splitting into externalizing and internalizing dysfunction to comprise the third and fourth factors, respectively. The BFI A and C marked externalizing and N marked internalizing. These third and fourth factors explained 22.4% and 19.2% of the common variance, respectively. Factors 1 and 2, explaining 27.8% and 22.8% of the common variance, respectively, corresponded to factors 3 (basic functioning/quality of life, with the BFI C

having a strong secondary loading) and 2 (positive functioning / well-being / BFI E) of the three-factor solution, respectively. All scales loaded .35 or higher, with minimal cross-loadings, suggesting that this was a good solution.

Factor Score Correlations with the BFI, SNAP-2, and IDAS

Factor Scores without the BFI. Factor scores for the three psychosocial functioning factors (i.e., without the BFI scales) were obtained and then correlated with the BFI, SNAP-2, and IDAS scales. Results are provided in Table A51. The psychosocial functioning factors showed a clear, interpretable convergent/ discriminant pattern with the BFI. Specifically, N correlated strongly with Internalizing / Externalizing Dysfunction and secondarily with Poor Positive Functioning; E correlated most strongly (negatively) with Low Satisfaction / Poor Interpersonal Functioning, A had the strongest correlation with Internalizing/ Externalizing Dysfunction, and C correlated strongly with both that factor and Poor Basic Functioning.

Similarly, correlations of the factors with the SNAP were clear and interpretable (see Table A53). Negative Temperament correlated strongly (r = .60) with Internalizing/ Externalizing Dysfunction, as did all the scales that formed the Negative Temperament factor (i.e., Mistrust, Manipulativeness, Aggression, Self-Harm, and Eccentric Perceptions) to a lesser extent (.40-.52), with the exception of Dependency, which did not correlate strongly with any of the factor scores. Detachment, Disinhibition, and Impulsivity also correlated ~.40-.45 with this factor. Self-Harm correlated with all three factor scores, most strongly (r = .59) with Poor Positive Functioning and was the only scale with a moderately strong correlation with the Poor Basic Functioning Factor. (Low) Positive Temperament and Detachment also correlated strongly (|.40| to |.58|) with Poor

Positive Functioning. Finally, Exhibitionism, Entitlement, Propriety, and Workaholism did not correlate strongly with any psychosocial functioning factor.

The IDAS results showed that affective psychopathology had the highest number of strong correlations with Poor Basic Functioning factor (7 out of 12 scales) in contrast to the personality trait scales, indicating that past-2-week's symptom level was associated with basic functioning whereas personality traits were not. In contrast, whereas the personality trait measures correlated strongly with Internalizing/ Externalizing Dysfunction, only the Ill Temper scale of the IDAS correlated with this factor (r = .48). Lastly, IDAS Well-Being was the most (inversely) strongly correlated scale with Poor Positive Functioning factor (r = -.64), along with General Depression, Dysphoria, and Anxiety, which correlated .40 to .54. Thus, Poor Positive Functioning was equally strongly related to personality traits and psychopathology.

Factor Scores with the BFI. Next, factor scores were obtained from the four-factor solution, which included the BFI scales (i.e., N, E, A, C) and were correlated with the SNAP-2 and IDAS (see Table A52). Among the SNAP scales, Poor Basic Functioning was once again strongly related only with Self-Harm. Poor Positive Functioning had strong (inverse) relations with Positive Temperament (r = -.66) as well as Detachment (r = .62). Externalizing Dysfunction was strongly related with four negative temperament trait scales (i.e., Mistrust, Manipulativeness, Aggression, and Eccentric Perception), along with Disinhibition and Impulsivity. Finally, Negative Temperament and Self-Harm correlated strongly with Internalizing Dysfunction factor, which didn't emerge when factor analyzed without the BFI. As this factor became separated from Externalizing Dysfunction, the Negative Temperament and Self-Harm no

longer showed strong correlations with Externalizing Dysfunction. Once again, Dependency, Entitlement, Propriety, and Workaholism were not strongly related with any of the psychosocial functioning factors.

Most of the IDAS scales were correlated with Poor Basic Functioning (General Depression, Dysphoria, Lassitude, Insomnia, Well-Being (inversely), Panic, and Traumatic Intrusion) and Internalizing Dysfunction (General Depression, Dysphoria, Lassitude, Ill Temper, and Anxiety). Three IDAS scales (General Depression, Dysphoria, and Well-Being) correlated strongly with the Poor Positive Functioning factor, whereas none correlated strongly with Externalizing Dysfunction.

Hierarchical Regression

One of the main research questions was to explore the extent to which psychosocial functioning explains personality disorder characteristics, specifically, to test whether psychosocial functioning predicts personality pathology, even after controlling for abnormal personality traits. To test this hypothesis, a hierarchical regression analysis was conducted to test whether psychosocial functioning predicts significant incremental variance after controlling for abnormal personality traits in step one (R^2 change).

To determine what to use as the dependent variable (DV), the SCID-II-PQ PD scores and the IPDS total score intercorrelations were examined (see Table B7). The IPDS correlated moderately to strongly with all the SCID-II-PQ PD scores with the exception of Histrionic (*rs* ranged .23 ~ .71, with Histrionic r = .06). A factor analysis of these score also indicated a one-factor solution with IPDS having a strong loading (.70). Thus, the sum of the SCID-II-PQ (i.e., sum of all positive answers to the 12 personality disorder types) scores and the IPDS total score was deemed appropriate to be was used as

the DV in the subsequent regression analyses. The SNAP-2 15 personality traits (three temperament scores and 12 primary trait scores) were factor analyzed and a two-factor solution emerged (1st factor comprised of neuroticism and disinhibition scales explaining 53.7% of the common variance and 25.5% of the total variance; 2nd factor comprised of positive temperament scales explaining 30.2% of the common variance and 14.3% of the total variance). The two factor solutions' factor scores were used as the independent variables (IVs) representing maladaptive personality traits. The three factor scores calculated from the factor analysis of the psychosocial functioning measures (without the BFI scales) were summed up to form an overall functioning score and this overall score was used as the psychosocial functioning IVs. In the hierarchical regression the 2 SNAP-2 factor scores were included in the first step followed by the one overall psychosocial functioning factor score. The psychosocial functioning factor score explained 3% significant additional variance (See Table A53).

CHAPTER IV

DISCUSSION

Broadly speaking, this study was designed to advance our understanding of the construct of psychosocial functioning by examining existing measures and their relations with external correlates, such as personality traits (both normal and abnormal range) and psychopathology (mood and anxiety symptoms, in particular). Psychosocial functioning is intimately related with psychopathology symptoms, and recent *DSM* revision work has triggered a much-needed discussion regarding improving the conceptualization of psychosocial functioning in the context of psychopathology. PD diagnosis is one of the areas in which functioning is receiving particular attention as part of its diagnostic revision. A widely discussed current model of PD diagnosis – the two-pronged model – incorporates psychosocial functioning impairment to detect the presence of PD. Moreover, although impaired functioning is required in diagnosing all *DSM* defined psychopathology, it is a core element in PD, as the general diagnostic guidelines list interpersonal functioning as one of the four areas where PD's essential features may be manifested along with cognition, affect, and impulse control (APA, 1994).

In this context, the more specific purpose of this research was to examine (1) current conceptualization, assessment, and structure of existing measures of psychosocial functioning, (2) relations of these measures with external correlates (e.g., personality traits, mood and anxiety symptoms, and affect), and (3) the interplay of psychosocial functioning and abnormal personality traits in generating a PD diagnosis. The findings from this study and their implications are discussed below.

Findings and Implications

How is Psychosocial Functioning Assessed

in the Current Literature?

The study's first aim was to explore how psychosocial functioning is conceptualized and assessed in the current literature. A qualitative review of existing measures was conducted with the exception of measures specific for disorders associated with notably lower levels of functioning, such as mental retardation, schizophrenia. Based on the content or domains being assessed, it was possible, generally speaking, to divide the measures into those commonly used in studying (1) functioning in relation to Axis I disorders, (2) functioning in relation to Axis II disorders, (3) quality of life/ satisfaction based on the content / domains being assessed. The first group of measures (e.g., SAS, SFQ, WHODAS-II) typically assess adaptive daily functioning in a comprehensive manner. Questions about work, relationships, and leisure activities were common, and subjective assessment of these daily activities was a frequent target of inquiry as well (e.g., How satisfied are you with your work?). These measures corresponded well to our "common sense notions" regarding assessment of psychosocial functioning. A major puzzle, however, was whether the subjective evaluation of functioning (e.g., *satisfaction* regarding one's work performance, *interest/disinterest* regarding relationships) was a valid aspect of psychosocial functioning or whether it was an unnecessary and/or inappropriate confound that would result in over- or underestimation of relations between functioning and level of psychopathology. This important empirical question was explored in this study.

Functioning measures used specifically in relation to Axis II disorder were quite different from the first group of measures in their item content and domains. These measures were developed with the premise that functioning is an intrinsic aspect of personality. Thus, the item contents are amalgamations of aspects of traits with aspects of functioning, with the domains assessed concerning broad, fundamental, psychological (mal)adaptive capacities (e.g., self-control, impulse control, social concordance). Moreover, a longer time frame was used to assess this dysfunction compared to that of measures used to assess functioning in the context of Axis I disorders). In this study, the extent to which these measures overlap with personality traits was examined, as well as their role in predicting personality pathology.

Quality of life/ satisfaction measures (e.g., WHOQOL-BREF, SWLS, PWB) also were reviewed and examined empirically in relation to the two other types of functioning measures. Conceptually, high quality of life and satisfaction may be understood as a by-product of successful functioning. However, rating quality of life and satisfaction involves a subjective evaluation of one's daily living, which may not always be congruent with objective reality (e.g., good objective functioning, but low satisfaction; poor functioning, but high reported quality of life). Thus, this study was designed to explore how these measures relate to the psychosocial functioning measures typically used in the context of Axis I and II disorders, and whether the subjective aspects they tap are valid and legitimate markers of psychosocial functioning or represent a distinct domain. This will be further discussed below.

How are Existing Psychosocial Functioning Measures
Related to each other and How Do They Conjointly Form
the Construct of Psychosocial Functioning?

Following a review of existing measures, the interrelations of the three categories of measures were examined empirically, both within-category (e.g., within daily functioning measures) as well as across categories (e.g., between daily functioning and personality functioning measures). Broadly speaking, many moderate correlations were observed (i.e., *rs* in |.30| ~ |.60| range) both within- and across-categories, suggesting that no one category or measure was significantly distinct from an overarching psychosocial functioning construct so as to fall outside its domain and form a separate construct. However, specific domains within measures exhibited stable differential correlation patterns. The most noticeable pattern involved the WHODAS-II basic functioning domains (e.g., self-care, mobility), which are comprised of purely behavioral items (e.g., eating, standing up for a long period). As such, the WHODAS-II consistently set the lower boundary of correlations in analyses with other psychosocial functioning measures (in the |.15| to |.18| range). These results imply that the WHODAS-II may be limited in examining psychosocial functioning level comprehensively. First, in psychiatric patients, especially those whose daily-behavior functional level is average or above, the measure may provide limited additional information due to its lower functioning and behavioral focus. Secondly, because the correlational analyses indicate that functioning assessed by the WHODAS-II shares only a small amount of variance with other measures, it is recommended that it be used in conjunction with other measures (e.g., SFQ, SWLS) to capture functioning more comprehensively. However, the WHODAS-II may well serve

certain specific purposes, when there is an interest in basic functioning assessment with lower level functioning patients.

Less noticeably, but consistently, PWB Autonomy also correlated in the lower range with other psychosocial functioning measures in its original form. It also loaded consistently the lowest on the general functioning factor with no cross-loadings on other factors. Further, PWB Autonomy, as well as Personal Growth[v], were the only scales that correlated significantly with O, and no other BFI scales. Although recent research has revealed that it is necessary to map out psychopathology / personality pathology in the oddity domain for comprehensive coverage, the oddity domain appears quite distinct from O as assessed within the trait's adaptive range (see Watson, Clark, & Chmielewski, 2008 for review). Thus, although PWB Autonomy played a unique role and expanded the psychosocial functioning construct by capturing its associations with the O domain, its utility may be higher in examining normal range individuals' functioning than in assessing psychosocial functioning in the context of psychopathology.

The SFQ and SAS, both global daily functioning measures, correlated moderately with the WHODAS-II and consistently correlated strongly with other categories' measures (i.e., personality functioning and quality of life/ satisfaction measures). Such findings suggested that the SFQ and SAS are indeed "global" functioning measures capturing both daily functioning behaviors as well as the subjective, affective content associated with those behaviors. The SFQ and SAS also correlated .64 with each other. The SAS provides more detailed information about different functioning domains and would be useful in studies assessing within-individual pre-post changes in social functioning. In contrast, the SFQ is an 8-item measure, whereas the SAS is a 56-item

measure with a complex scoring system that inevitably leads to missing responses on some questions. Thus, the SFQ would appear preferable when a shorter measure or group-level analyses (i.e., without missing values) are needed. Of note, the SFQ correlated .70 with the IDAS Dysphoria scale in the patient sample (vs. .57 in the community sample). The SFQ appeared to be sensitive to increased psychopathology level more so than other measures and set the upper limit correlation level between general functioning and psychopathology (i.e., mood symptoms).

Factor analysis was used to understand how the various measures form the structure of a broad psychosocial functioning construct. Specifically, principal-axis factor analyses with varimax rotation were conducted using the psychosocial functioning measures' (sub)scales, after removing any scales that correlated $\geq |.70|$ with personality traits, mood, or affect, to explore the structure of the construct in both Phase 1 and Phase 2 studies. Removal of such scales was done to separate out those that appeared to be more indicative of personality traits and psychopathology than psychosocial functioning.

Several notable findings emerged. First, in all the factor analyses beyond one-factor solutions, poor general functioning (marked by low self-acceptance, poor general functioning, and low life satisfaction) and poor basic functioning factor (marked by poor self-care and mobility) emerged as distinct factors. Personality functioning measures formed their own factors and introduced distinct and important dimensions of psychosocial functioning, such as good versus poor self-mastery and social/interpersonal relationships. Depending on the analyses, poor internal self-mastery (e.g., instability, impulsivity, lack of direction) and social/interpersonal relationships emerged as separate factors or as a single factor.

As noted earlier, personality functioning measures typically use a longer timeframe than some measures of other functioning domains, raising the question of the extent to which this factor is based on method variance. However, the quality of life / satisfaction measures also use longer timeframes; for example, the SWLS and PWB have no specific time frame, just like the MDPF, and the SIPP-SF asks about the past 3 months, yet only the MDPF and the SIPP-SF formed the personality functioning factors. The SWLS and PWB instead formed factors with self-reported as well as interview-based general functioning measures that use shorter time frames (i.e., past 2 weeks, past 1 month). Thus, content overlap rather than method similarity was the primary determinant of the factors.

Secondly, results showed that satisfaction level is part of a broad, general factor of well-being and positive (vs. negative) functioning assessed by both global measures of overall functioning and more specific measures of mature functioning, such as self-acceptance. The SWLS, for example, was moderately correlated (~ |.40| to |.60|) with global functioning measures as well as personality functioning scales – the internalizing more than the externalizing type. That satisfaction emerged as a strong marker indicated "subjective positive evaluation" as a important component of general positive functioning, and that subjective as well as objective aspects of functioning must be included to capture individuals' functioning fully.

Finally, when LIFE-RIFT interview-based domains were added in the Phase 2 analyses, its Work domain always emerged as a marker of basic functioning whereas its other domains (i.e., Relationship, Leisure, Satisfaction) emerged as markers of positive overall functioning along with satisfaction. That work and relationship functioning

loaded onto separate factors is particularly interesting given the long standing acknowledgement of Freud's "to work and to love" as critical aspects of a well-functioning individual (Erikson, 1995). However, this result also must be interpreted within the context that the study's assessment of "work" functioning using the LIFE-RIFT was broad – that is, it was not limited to paid employment, but also includes housework and school work (and using the worst score if more than one for a given individual). The fact that only 28% of participants had a full-time job (with approximately 21% part-time job) and that about 31% were unemployed, this work functioning score reflects, in part, the ability to conduct basic household chores, which then corresponds well to the basic functioning domain.

How do Existing Psychosocial Functioning Measures

Relate to Personality Traits and Mood Symptoms?

One of the patterns noted in reviewing existing psychosocial functioning measures conceptually was the extent to which they incorporate personality traits, as well as mood/ affect at the item level. The WHODAS-II was a rare exception in being the only scale with primarily behavioral items. Therefore, it was hypothesized that psychosocial functioning measures would overlap considerably with personality trait, and mood/ affect measures (Hypothesis 1), and results generally confirmed the hypothesis, showing that psychosocial functioning measures and personality trait and affect measures correlated in the moderate range (*rs* ranging .30 ~ .60).

These results indicate that traits and mood, to a certain extent, may be considered legitimate components in the conceptualization of human functioning (e.g., interest in doing things, satisfaction with functioning). However, the increased correlations between

specific mood symptoms and personality traits in the psychiatric patient sample compared to community residents indicate that boundaries between these two domains become increasingly permeable at higher levels of psychopathology. In this context, some specific correlational patterns were noteworthy. First, BFI N and C showed moderate levels of general associations across all the psychosocial functioning measures, with the exception of the WHODAS-II basic functioning scales. Moreover, the N and C correlational magnitudes increased significantly in several Phase 2 measures (i.e., SFQ, SIPP-SF, SWLS, and PWB with N; SFQ and WHODAS with C). Thus, representative measures from all three psychosocial functioning domains (i.e., daily functioning, personality functioning, and quality of life/satisfaction) showed increased relations with N, whereas only the daily functioning measures' associations with C increased significantly. This seems to reflect N's more pervasive and broad associations with psychopathology and psychosocial functioning compared to C. Also, the stronger associations found in psychiatric patients compared to community residents suggests that as psychopathology increases, functioning and personality traits (particularly N) become more intertwined.

This finding indicates once more that the boundary between N and functioning becomes less clear at increased levels of psychopathology. Perhaps after a certain level of N, psychopathology and psychosocial functioning merge, with the effect of high N spilling over and infiltrating one's functional level, and vice versa, to the extent that impaired functioning and symptoms are indistinguishable. When factor analyses were conducted with the BFI scales included, N and C also emerged as among the strongest markers of poor general functioning/ internalizing dysfunction and low self-mastery (e.g.,

impulsivity), respectively. A similar finding was observed with the IDAS in which General Depression and Dysphoria consistently correlated most strongly with psychosocial functioning impairment. In Phase 2, in which abnormal personality traits also were examined, SNAP-2 Negative Temperament and Self-Harm consistently correlated strongly with all the psychosocial functioning scales. These findings have similar implications as the above findings with the BFI N and that increased level of psychopathology leads to increased associations with impaired functioning.

Secondly, the BFI E and A showed less general and more specific associations with social and interpersonally relevant psychosocial functioning measures. Similar correlation patterns were observed in both study phases; however, the correlations' magnitude did not increase in psychiatric patients as they did with N. This reflects that E and A have less broad associations with psychopathology compared to N, and thus an increased level of symptoms does not necessarily lead to increased associations. The BFI E, and A in particular, emerged as strong markers when included in factor analyses, particularly of poor general functioning and social/interpersonal/externalizing factors, suggesting that these personality traits are strongly linked with psychosocial functioning, specifically to social/interpersonal dysfunction. Specific relations also were found for IDAS Well-Being and SNAP-2 Positive Temperament, which were more strongly correlated with quality of life/ satisfaction than with other measures, indicating that quality of life/ satisfaction domains among others are the ones that tap into positive affect and well-being rather than being the opposite of demoralization.

Thirdly, the BFI O correlated minimally with psychosocial functioning measures with the exception of the PWB scales – Autonomy and Personal Growth, in particular –

in both study phases. The Phase 1 and 2 correlations with the BFI O were not significantly different. As discussed previously in the context of PWB Autonomy's low-correlation pattern with other psychosocial functioning measures and its unique association with the BFI O, this finding further supports the notion that BFI O minimally explains psychopathology symptoms and personality pathology. Finally, factor scores based on factor analyses without the BFI scales were correlated with the BFI scales in both study phases. This correlation pattern summed up well relations between factors of psychosocial functioning and normal personality traits. Each factor showed a clear correlation patterns with specific BFI scales: Internalizing dysfunction (in the four-factor solution) or poor general functioning (in the three-factor solution) with N; poor general functioning and low satisfaction with E; poor interpersonal functioning with A, and C mostly loading on poor personality functioning with a cross-loading on poor basic functioning in the patient sample. Also notable was that personality functioning factors (e.g., internalizing dysfunction, externalizing dysfunction) were correlated most strongly with personality trait measures (i.e., BFI, SNAP-2), whereas the poor basic functioning factor was minimally correlated with personality trait measures but strongly correlated with a mood symptom measure (i.e., IDAS). The poor general functioning factor's correlations fall in between those of personality functioning and basic functioning factors with personality traits.

The findings regarding relations between personality traits/ psychopathology symptoms and psychosocial functioning may be interpreted to mean that personality traits are an integral part of functioning, and the specific relations found suggest that PD patients will tend to display internalizing/ externalizing personality dysfunction (e.g.,

poor social relationships, lack of self-mastery), patients with Axis I psychopathology will tend to have poor general functioning and low life satisfaction and that, as psychopathology becomes more severe – although whether this is due to Axis I pathology, Axis II pathology, or both is unclear – basic functioning (e.g., self-care, mobility) ability will decline as well.

Diagnosis of Personality Pathology:

Is the Two-Pronged Model a Viable Option?

The final purpose of study was to test whether a two-pronged model of personality pathology is a viable option for diagnosing PD. The proffered two-pronged model (e.g., Livesley et al., 1994), simply put, proposes that impaired functioning level be used to diagnose the presence of PD on Axis I and that personality traits are described in Axis II. For this model to work, two requirements needed to be fulfilled: First, psychosocial functioning impairment had to be significantly related to personality pathology and second, psychosocial functioning needed to explain personality pathology above and beyond that explained by abnormal personality traits. Correlation analyses showed that this first requirement is met and thus the second step was tested. In a hierarchical regression, psychosocial functioning factor explained significant additional variance in personality pathology after controlling for abnormal-range personality traits and supported the two-pronged model's utility. However, the functioning also explained only 3% of increased variance. Possibly, increasing the assessment of social/interpersonal functioning could lead to explaining more variance of PD as social dysfunction is widely recognized as a common type of dysfunction in PD (e.g., Langbehn et al., 1999; Parker & Hadzi-Pavlovic, 2001; Seivewright et al., 2004).

Models Explaining the Interrelations among PD Diagnosis, Abnormal Personality Traits, and Psychosocial Functioning

Three models were tested and compared: (1) functioning and abnormal-range traits both predicting personality pathology, (2) functioning mediating the relations between abnormal-range traits and personality pathology (i.e., abnormal traits explaining personality pathology only via functioning), and (3) abnormal range traits mediating personality pathology (i.e., functioning explaining personality pathology only via abnormal-range traits). Comparing fit indices indicated that the three models did not differ and no model captured their interrelations fully. Such results further confirm and are consistent with the earlier correlation and regression findings that indicated that the measures assessing these three constructs all are correlated moderately, that their relations are intertwined, and that the boundaries among these three constructs are not clearly distinct, especially in psychiatric patients

Strengths and Limitations

This project has a number of strengths. First, it extended the concept of psychosocial functioning from daily behaviors to incorporate personality functioning and quality of life and satisfaction constructs. The current study showed that psychosocial functioning is essential to understanding personality pathology. This result supported a two-pronged model of personality pathology diagnosis, and also suggested possible ways of improving psychosocial functioning assessment with regards to personality pathology, for example, by strengthening social/interpersonal functioning assessment that is more relevant to the BFI A. Quality of life and satisfaction domains were aspects in the current literature that previously have not been explored extensively within the context of

psychosocial functioning as a domain of their own although they frequently were included as one or two items in assessments of daily functioning behaviors. The current study's empirical examination suggests that quality of life and satisfaction may be considered not only as a legitimate but also a central aspect of good psychosocial functioning, underscoring the importance of assessing both daily behaviors and satisfaction.

Secondly, the study recruited both community residents and patients to explore psychosocial functioning. This two-step process showed that findings from community residents may be extended to patient groups and suggested the robustness and generalizability of the factor structure. Finally, the current study utilized a widely used psychosocial functioning interview – the LIFE-RIFT (Keller et al., 1987) – in addition to self-report measures to enhance assessment of this construct.

The main limitation of this study, however, was that a formal PD diagnostic assessment was not conducted. Existing PD diagnostic measures (e.g., *SIDP-IV*; Pfohl, Blum, & Zimmerman, 1995) were too time-consuming to be incorporated into the protocol. However, the study administered the IPDS—a *SIDP-IV* screener to complement the SCID-II-PQ and to strengthen this aspect as much as possible.

Future Directions

This project was designed to clarify the construct of psychosocial functioning construct and explore its utility in PD diagnosis. Several future directions are noted. First, further examination and clarification regarding personality functioning as a construct would be necessary. Personality functioning was strongly linked to the BFI A, and has the potential to be used further in personality pathology assessment. In the

current study, personality functioning formed its own unique factor(s) in the factor analyses, particularly highlighting the aspects of social and interpersonal dysfunction. Personality functioning measures were developed by researchers interested in searching for alternative methods to diagnose PD. Although these researchers shared the idea that disordered personality functioning should be assessed independently as possible from traits, the item content of personality functioning measures actually were an amalgamation of personality traits and daily functioning. The measures seem to be positioned in between personality traits and daily functioning measures on a spectrum reflecting the degree of traits embedded. Resulting measures were moderately correlated with abnormal-range personality traits as well as daily functioning measures and were able to contribute significantly to the psychosocial functioning construct as a whole. Further examination regarding how they are different from abnormal-range personality traits and daily functioning measures is needed to clarify what personality functioning entails above and beyond traits.

Secondly, understanding relations between psychosocial functioning and Axis I psychopathology in a more detailed manner should be explored further. Impaired psychosocial functioning is not limited to individuals with PD, but rather is associated universally with psychopathology. The current study identified poor general functioning and low satisfaction in particular as being linked to mood symptoms. However, further study in understanding relations between psychosocial functioning and Axis I externalizing disorder as well as the oddity domain, which may bridge between clinical syndromes and personality pathology, would provide a more comprehensive picture of psychosocial functioning's link with psychopathology.

Summary

The broad construct of psychosocial functioning is receiving attention from researchers and clinicians for a number of reasons. Primarily, despite being incorporated in the diagnostic system over several decades, psychosocial functioning is still poorly defined and crudely assessed within the system. Thus, efforts to conceptualize, assess, and determine psychosocial functioning's role in psychopathology conceptualization is being pursued actively.

Overall it appears that psychosocial functioning involves the ability to take care of oneself with regard to basic functioning (including self-care, work functioning), a positive psychological evaluation of life and a positive well-being stemming from good relationships and positive leisure activities as well as self-acceptance. Also, it appears that functioning domains related to personality—such as social concordance or impulsivity—explain, and thus expand, the construct of psychosocial functioning in a meaningful manner. In terms of explaining personality pathology, psychosocial functioning measures appear to make a unique contribution above and beyond abnormal-range personality traits. Further examination of psychosocial functioning impairment in the context of both Axis I and II disorders would contribute to advancing diagnosis and treatment work in PD and other domains of psychopathology.

NOTES

[i] Of note, according to the International Statistical Classification of Disease (ICD) and International Classification of Functioning, Disability, and Health (ICF), "impairment" refers to problems in bodily structure and/or functioning, which may include symptoms. For social and occupational functional impairment, as referred to in the *DSM*, the ICD uses terms "activity limitation" and "participation restriction," collectively termed "disabilities." Although the *DSM-5* is likely to adopt the ICD terminology, I use the more familiar *DSM-IV* terminology.

[ii] I used an online version of *DSM-IV-TR*, so page numbers are not available.

[iii] In the ICF, "impairment" refers only to problems in bodily structure or functioning, so this usage would be incorrect. For problems in activities of daily living and social participation, the ICF uses the terms "activity limitation" and "participation restriction."

[iv] Range of *N* only was provided in the article.

[v] PWB Personal Growth also correlated in the low range with other functioning measures in its original form but later merged into the PWB Actualization factor along with PWB Purpose in Life via the item reduction process and thus the correlations with other measures went up in analyses using this revised measure.

REFERENCES

Allport, G. W. (1937). Personality: A psychological interpretation. New York: Holt.

American Psychiatric Association (1987). Diagnostic and statistical manual of mental disorders: DSM-III (3rd ed., revised). Washington, DC: Author.

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders: DSM-IV (4th. ed.). Washington, DC: American Psychiatric Association.

Åsberg, M., Montgomery, S. A., Perris, C., Schalling, D., & Sedvall, G. (1978). A comprehensive psychopathological rating scale. Acta Psychiatrica Scandinavica, suppl. 271, 5-29.

Bacon, S. F., Collins, M. J., & Plake, E. V. (2002). Does the Global Assessment of Functioning assess functioning? Journal of Mental Health Counseling, 24, 202-212.

Ball, S. A., Rounsaville, B. J., Tennen, H., & Kranzler, H. R. (2001). Reliability of personality disorder symptoms and personality traits in substance-dependent inpatients. Journal of Abnormal Psychology, 110, 341-352.

Beck, A. T., & Steer, R. A. (1990). Beck Anxiety Inventory manual. San Antonio, TX: Psychological Corporation.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Beck Depression Inventory manual (2nd ed.). San Antonio, TX: Psychological Corporation.

Bolton, D., Hill, J., O'Ryan, D., Udwin, O., Boyle, S., Yule, W. (2004). Long-term effects of psychological trauma on psychosocial functioning. Journal of Child Psychology and Psychiatry, 45, 1007-1014.

Bonomi, A. E., Patrick, D. L., Bushnell, D. M., & Martin, M. (2000). Validation of the United States' version of the World Health Organization Quality of Life (WHOQOL) instrument. Journal of Clinical Epidemiology, 53, 1-12.

Brazier, J.E., Haper, R., Jones, N.M., O'Cathain, A., Thomas, K.J., Usherwood, T. et al. (1992). Validating the SF-36 health survey questionnaire: New outcome measure for primary care. British Medical Journal, 305, 160-164.

Cantor, N. (1990). From thought to behavior: "Having" and "Doing" in the study of personality and cognition. American Psychologist, 45, 735-750.

Chávez, L. M., Canino, G., Negrón, G., Shrout, P. E., Matías-Carrelo, L. E., Aguilar-Gaxiola, S. et al. (2005). Psychometric properties of the Spanish version of two mental health outcome measures: World Health Organization Disability Assessment Schedule II and Lehman's Quality of Life Interview. Mental Health Services Research, 7, 145-159.

Chwastiak, L. A. & Von Korff, M. (2003). Disability in depression and back pain: Evaluation of the World Health Organization Disability Assessment Schedule (WHO DAS II) in a primary care setting. Journal of Clinical Epidemiology, 56, 507-514.

Clark, L. A. (2007). Assessment and diagnosis of personality disorder: Perennial issues and an emerging reconceptualization. Annual Review of Psychology, 58, 227-257.

Clark, L. A. & Harrison, J. A. (2001). Assessment instruments. In W. J. Livesley (Ed.). Handbook of personality disorders (pp. 277-306). Guilford Press.

Clark, L. A., Livesley, W. J., & Morey, L. C. (1997). Personality disorder assessment: The challenge of construct validity. Journal of Personality Disorder, 11, 205-231.

Clark, L. A., Simms, L. J., Wu, K. D., & Casillas, A. (in press). Schedule for nonadaptive and adaptive personality-second ed. (SNAP-2). Manual for administration, scoring, and interpretation. Minneapolis, MN: University of Minnesota Press.

Clark, L. A., Vittengl, J., Kraft, D., & Jarrett, R. J. (2003). Shared, not unique, components of personality and psychosocial functioning predict post-acute-phase cognitive therapy depression severity. Journal of Personality Disorders, 17, 406-430.

Cooper, P., Osborn, M., Gath, D., & Feggetter, G. (1982). Evaluation of a modified self-report measure of social adjustment. British Journal of Psychiatry, 141, 68-75.

Costa, P. T., & McCrae, R. R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual. Odessa, FL: Psychological Assessment Resources.

De Girolamo, G., Picardi, A., Santone, G., Falloon, I., Morosini, P., Fioritti, A. et al. (2005). The severely mentally ill in residential facilities: A national survey in Italy. Psychological Medicine, 35, 421-431.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. Journal of Personality Assessment, 49, 71-75.

Eisen, J. L., Mancebo, M. A., Pinto, A., Coles, M. E., Pagano, M. E., Stout, R. et al. (2006). Impact of obsessive-compulsive disorder on quality of life. Comprehensive Psychiatry, 47, 270-275.

Ekselius, L., Lindström, E., von Knorring, L., Bodlund, O., & Kullgren, G. (1994). SCID II interviews and the SCID Screen questionnaire as diagnostic tools for personality disorders in DSM-III-R. Acta Psychiatrica Scandinavica, 90, 120-123.

Endicott, J., Spitzer, R. L., Fleiss, J. L., & Cohen, J. (1976). The Global Assessment Scale: A procedure for measuring overall severity of psychiatric disturbance. Archives of General Psychiatry, 33, 766-771.

Erikson, E. (1995). Childhood and Society (2nd ed.). London: Random House.

Erikson, E. (1959). Identity and life cycle. Psychological Issues, 1, 18-164.

Goldman, H. H., Skodol, A. E., & Lave, T. R. (1992). Revising Axis V for DSM-IV: A review of measures of social functioning. American Journal of Psychiatry, 149, 1148-1156.

Goodman, W. K., Price, L. H., Rasmussen, S. A., Mazure, C., Fleischman, R. L., Hill, C. L. et al. (1989). The Yale-Brown Obsessive-Compulsive scale: I. Development, use and reliability. Archives of General Psychiatry, 46, 1006-1011.

Gurland, B. J., Yorkston, N. J., Goldberg, K., Fleiss, J. L., Sloane, R. B., & Cristol, A. H. (1972). The Structured and Scaled Interview to Assess Maladjustment (SSIAM), II: Factor analysis, reliability, and validity. Archives of General Psychiatry, 27, 264-267.

Gurland, B. J., Yorkston, N. J., Stone, A. R., Frank, J. D., & Fleiss, J. L. (1972). The Structured and Scaled Interview to Assess Maladjustment (SSIAM), I: Description, rationale, and development. Archives of General Psychiatry, 27, 259-264.

Haigler, E. D., & Widiger, T. A. (2001). Experimental manipulation of NEO-PI-R items. Journal of Personality Assessment, 77(2), 339-358.

Hay, P., Katsikitis, M., Begg, J., Da Costa, J. D., & Blumenfeld, N. (2003). A two-year follow-up study and prospective evaluation of the DSM-IV Axis V. Psychiatric Services, 54, 1028-1030.

Hildebrand, R., McCann, E., Nelson, M., & Wass, P. (2003). Research note: Inter-rater reliability of the Global Assessment of Functioning scale in a psychogeriatric population. Canadian Journal on Aging, 22, 229-233.

Hill, J., Fudge, H., Harrington, R., Pickles, A., & Rutter, M. (1995). The Adult Personality Functioning Assessment (APFA): A factors influencing agreement between subject and informant. Psychological Medicine, 25, 263-275.

Hill, J., Fudge, H., Harrington, R., Pickles, A., & Rutter, M. (2000). Complementary approaches to the assessment of personality disorder. British Journal of Psychiatry, 176, 434-439.

Hill, J., Harrington, R., Fudge, H., Rutter, M., & Pickles, A. (1989). Adult Personality Functioning Assessment (APFA): An investigator-based standardized interview. British Journal of Psychiatry, 155, 24-35.

Hill, J., Pilkonis, P., Morse, J., Feske, U., Reynolds, S., Hope, H. et al. (2008). Social domain dysfunction and disorganization in borderline personality disorder. Psychological Medicine, 38, 135-146.

Hilsenroth, M. J., Ackerman, S. J., Blagys, M. D., Baumann, B. D., Baity, M. R., Smith, S. R. et al. (2000). Reliability and validity of DSM-IV axis V. American Journal of Psychiatry, 157, 1858-1863.

Horowitz, L., Rosenberg, S., Baer, B., Ureno, G. & Villasenor, V. (1988). Inventory of Interpersonal Problems: Psychometric properties and clinical applications. Journal of Consulting and Clinical Psychology, 56, 885-892.

Imber, S.D., Pilkonis, P.A., Sotstky, S.M., Watkins, J.T., Shea, M.T., Elkin,I. et al.(1990). Mode-specific effects among three treatments for depression. Journal of Consulting and Clinical Psychology, 58, 352-359.

Inoue, T., Nakagawa, S., Kitaichi, Y., Izumi, T., Tanaka, T., Masui, T. et al. (2006). Long-term outcome of antidepressant-refractory depression: The relevance of unrecognized bipolarity. Journal of Affective Disorders, 95, 61-67.

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), Handbook of personality: Theory and research (pp. 102-138). New York: Guilford.

Keller, M. B., Lavori, P. W., Friedman, B., Nielsen, E., Endicott, J., McDonald-Scott, P. et al. (1987). The Longitudinal Interval Follow-up Evaluation: A comprehensive method for assessing outcome in prospective longitudinal studies. Archives of General Psychiatry, 44, 540-548.

Kennedy, J. A., & Foti, M. E. (2003). Axis V revisited. Psychiatric Services, 54, 1413.

Keogh, E. & Reidy, J. (2000). Exploring the factor structure of the Mood and Anxiety Symptom Questionnaire (MASQ). Journal of Personality Assessment, 74, 106-125.

Langbehn, D., Pfohl, B., Reynolds, S., Clark, L. A., Battagila, M., Bellodi, L. et al. (1999). The Iowa Personality Disorders Screen. Journal of Personality Disorders, 13, 75-89.

Larsen, R. J., Diener, E., & Emmons, R. A. (1985). An evaluation of subjective well-being measures. Social Indicators Research, 17, 1-18.

Leon, A. C., Solomon, D. A., Mueller, T. I., Endicott, J., Posternak, M., Judd, L. L. et al., (2000). A brief assessment of psychosocial functioning of subjects with bipolar disorder: The LIFE-RIFT. The Journal of Nervous and Mental Disease, 188, 805-812.

Leon, A. C., Solomon, D. A., Mueller, T. I., Turvey, C. L., Endicott, J., & Keller, M. B. (1999). The Range of Impaired Functioning Tool (LIFE-RIFT): A brief measure of functional impairment. Psychological Medicine, 29, 869-878.

Livesley, W. J., & Jang, K. L. (2000). Toward an empirically based classification of personality disorder. Journal of Personality Disorder, 14, 137-151.

Livesley, W. J., Schroeder, M. L., Jackson, D. N., & Jang, K. L. (1994). Categorical distinctions in the study of personality disorder: Implications for classification. Journal of Abnormal Psychology, 103, 6-17.

Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extraversion and neuroticism as predictors of objective life events: A longitudinal analysis. Journal of Personality and Social Psychology, 65, 1046-1053.

Maslow, A. H. (1943). A theory of human motivation. Psychological Review, 50, 370-396.

McHorney, C. A., Ware, J. E., Rogers, W., Raczek, A. E., & Lu, J. F. (1992). The validity and relative precision of MOS short- and long-form health status scales and Dartmouth COOP charts: Results from the Medical Outcome Study. Medical Care, 30, 253-265.

McHorney, C. A., Ware, J. E., & Raczek, A. E. (1993). The MOS 36-item short-form health survey (SF-36): II. Psychometric and clinical tests of validity in measuring physical and mental health constructs. Medical Care, 31, 247-263.

McHorney, C. A., Ware, J. E., Lu, J. F. R., & Sherbourne, C. D. (1994). The MOS 36-item Short-Form Health Survey (SF-36): III. Tests of data quality, scaling assumptions, and reliability across diverse patient groups. Medical Care, 32, 40-66.

Moos, R. H., Nichol, A., C., & Moos, B. S. (2002). Global Assessment of Functioning ratings and the allocation and outcomes of mental health services. Psychiatric Services, 53, 730-737.

Morey, L. C., Gunderson, J., Quigley, B. D., & Lyons, M. (2000). Dimensions and categories: The 'big five' factors and the DSM personality disorders. Assessment, 7, 203-216.

Morey, L. C., Gunderson, J., Quigley, B. D., & Shea, M. T. (2002). The representation of borderline, avoidance, obsessive-compulsive, and schizotypal personality disorders by the five-factor model. Journal of Personality Disorder, 16, 215-234.

Naughton, M., Oppenheim, A., & Hill, J. (1996). Assessment of personality functioning in the transition from adolescent to adult life: Preliminary findings. British Journal of Psychiatry, 168, 33-37.

Neugarten, B. L., Havighurst, R. J., & Tobin, S. S. (1961). The measure of life satisfaction. Journal of Gerontology, 16, 134-143.

Nur, U., Tyrer, P., Merson, S., & Johnson, T. (2004). Social function, clinical symptoms and personality disturbance. Irish Journal of Psychological Medicine, 21, 18-21.

Oldham, J. M., & Skodol, A. E. (2000). Charting the future of Axis II. Journal of Personality Disorders, 14, 17-29.

Oliver, P., Cooray, S., Tyrer, P., & Cicchetti, D. (2003). Use of the Global Assessment of Function scale in learning disability. British Journal of Psychiatry, 182 (Suppl. 44), s32-s35.

Parker, G., Both, L., Olley, A., Hadzi-Pavlovic, D., Irvine, P., & Jacobs, G. (2002). Defining disordered personality functioning. Journal of Personality Disorders, 16, 503-522.

Parker, G., & Hadzi-Pavlovic, D. (2001). A question of style: Refining the dimensions of personality disorder style. Journal of Personality Disorders, 15, 300-318.

Parker, G., Hadzi-Pavlovic, D., Both, L., Kumar, S., Wilhelm, K., & Olley, A. (2004). Measuring disordered personality functioning: To love and to work reprised. Acta Psychiatrica Scandinavica, 110, 230-239.

Patterson, D. A. & Lee, M. S. (1995). Field trial of the Global Assessment of Functioning Scale – Modified. American Journal of Psychiatry, 152, 1386-1388.

Pavot, W. & Diener, E. (1993). Review of Satisfaction with Life Scale. Psychological Assessment, 5, 164-172.

Paykel, E. S. (1999). Social functioning and the depressed patient. International Journal of Psychiatry in Clinical Practice, 3, S9-S11.

Paykel, E. S., Weissman, M. M., & Prusoff, B. A. (1978). Social maladjustment and severity of depression. Comprehensive Psychiatry, 19, 121-128.

Pfohl, B. M., Blum, N., Zimmerman, M., & Stangl, D. (1989). Structured interview for DSM-III-R Personality: SIDP-R. Iowa City, IA: Author.

Pfohl, B., Blum, N., Zimmerman, M. (1997). Structured Interview for DSM-IV Personality (SIDP-IV). Washington, D.C., American Psychiatric Press Inc.

Piersma, H. L. & Boes, J. L. (1995). Agreement between patient self-report and clinician rating" Concurrence between the BSI and the GAF among psychiatric patients. Journal of Clinical Psychology, 51, 153-157.

Pini, S., Dell'Osso, L., Amador, X. F., Mastrocinque, C., Saettoni, M., & Cassano, G. B. (2003). Awareness of illness in patients with bipolar I disorder with or without comorbid anxiety disorders. Australian and New Zealand Journal of Psychiatry, 37, 355-361.

Reidy, J., & Keogh, E. (1997). Testing the discriminant and convergent validity of the Mood and Anxiety Symptoms Questionnaire using a British sample. Personality and Individual Differences, 23, 337–344.

Remington, M. & Tyrer, P. (1979). The Social Functioning Schedule: A brief semi-structured interview. Social Psychiatry, 14, 151-157.

Reynolds, S. K., & Clark, L. A. (2001). Predicting dimensions of personality disorder from domains and facets of the five-factor model. Journal of Personality, 69, 199-222.

Rogers, C. R. (1961). On becoming a person. Boston: Houghton Mifflin.

Rounsaville, B. J., Alarcon, R. D., Andrews, G., Jackson, J. S., Kendell, R. E., & Kendler, K. (2002). Basic nomenclature issues for DSM-V. In D. J. Kupfer, M. N. First, & D. A. Regier (Eds.), A research agenda for DSM-V (pp. 1-29). Washington DC: American Psychiatric Association.

Roy-Byrne, P., Dagadakis, C., Unutzer, J., & Ries, R. (1996). Evidence for limited validity of the Revised Global Assessment of Functioning scale. Psychiatric Services, 47, 864-866.

Ryan, R. M. & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. Annual Review of Psychology, 52, 141-166.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of Personality and Social Psychology, 57, 1069-1081.

Ryff, C. D., & Singer, B. (1996). Psychological well-being: Meaning, measurement, and implications for psychotherapy research. Psychotherapy and Psychosomatics, 65, 14-23.

Saulsman, L. M., & Page, A. C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. Clinical Psychology Review, 23, 1055-1085.

Saulsman, L. M., & Page, A. C. (2003). Can trait measures diagnose personality disorders? Current Opinions in Psychiatry, 16, 83-88.

Schmutte, P. S. & Ryff, C. D. (1997). Personality and well-being: Reexamining methods and meanings. Journal of Personality and Social Psychology, 73, 549-559.

Seivewright, H., Tyrer, P., & Johnson, T. (2004). Persistent social dysfunction in anxious and depressed patients with personality disorder. Acta Psychiatrica Scandinavica, 109, 104-109.

Shapiro, R. & Keller, M. (1979). Longitudinal Interval Follow-up Evaluation (LIFE). Boston, Massachusetts General Hospital.

Sim, K., Chua, T. H., Chan, Y. H., Mahendran, R., & Chong, S. A. (2006). Psychiatric comorbidity in first episode schizophrenia: A 2 year, longitudinal outcome study. Journal of Psychiatric Research, 40, 656-663.

Skevington, S. M., Lotfy, M., & O'Connell, K. A. (2004). The World Health Organization's WHOQOL-BREF quality of life assessment: Psychometric properties and results of the international field trial. A report from the WHOQOL Group. Quality of Life Research, 13, 299-310.

Skodol, A. E. (Sept., 2007). Longitudinal course and outcome of personality psychopathology. Paper presented in Natural Course of PD, Integrative Plenary Session at the International Society for the Study of Personality Disorder Conference. The Hague, The Netherlands.

Skodol, A. E., Gunderson, J. G., Shea, M. T., McGlashan, T. H., Morey, L. C., Sanislow, C. A. et al. (2005). The Collaborative Longitudinal Personality Disorder Study (CLPS): Overview and implications. Journal of Personality Disorders, 19, 487-504.

Skodol, A. E., Oldham, J. M., Bender, D. S., Dyck, I. R., Stout, R. L., Morey, L. C. et al. (2005). Dimensional representations of DSM-IV personality disorders: Relationships to functional impairment. American Journal of Psychiatry, 62, 1919-1925.

Skodol, A. E., Pagano, M. E., Bender, D. S., Shea, M. T., Gunderson, J. G., Yen, S. et al. (2004). Stability of functional impairment in patients with schizotypal, borderline, avoidant, or obsessive-compulsive personality disorder over two years. Psychological Medicine, 35, 443-451.

Soderberg, P., Tungstrom, S., & Armelius, B. A. (2005). Reliability of Global Assessment of Functioning ratings made by clinical psychiatry staff. Psychiatric Services, 56, 434-438.

Spitzer, R.L., Williams, J. B. W., & Gibbon, M. (1987). SCID Personality Questionnaire. New York State Psychiatric Institute, New York.

Stewart, A. L., Hays, R. D., & Ware, J. E. (1988). The MOS short-form general health survey: Reliability and validity in a patient population. Medical Care, 26, 724-735.

Trull, T. J., & Amdur, M. (2001). Diagnostic efficiency of the Iowa Personality Disorder Screen items in a nonclinical sample. Journal of Personality Disorders, 15, 351-357.

Trull, T. J., & Durrett, C. A. (2005). Categorical and dimensional models of personality disorder. Annual Review of Clinical Psychology, 1, 355-380.

Trull, T. J., Widiger, T. A., Useda, J. D., Holcomb, J., Doan, B-T., Axelrod, S. R. et al. (1998). A structured interview for the assessment of the Five-Factor Model of Personality. Psychological Assessment, 10(3), 229-240.

Tyrer, P., & Alexander, J. (1988). Personality Assessment Schedule. In P. Tyrer (Ed.), Personality Disorders (pp. 43-62). London: Wright.

Tyrer, P., Nur, U., Crawford, M., Karlsen, S., McLean, C., Rao, B. et al. (2005). The Social Functioning Questionnaire: A rapid and robust measure of perceived functioning. International Journal of Social Psychiatry, 51, 265-275.

Urry, H. L., Nitschke, J. B., Dolski, I., Jackson, D. C., Dalton, K. M., Mueller, C. J. et al. (2004). Making a life worth living: Neural correlates of well-being. Psychological Science, 15, 367-372.

Verheul, R., Andrea, H., Berghout, C. C., Dolan, C., Busschbach, J. J. V., van der Kroft, P. J. A. et al. (2008). Severity Indices of Personality Problems (SIPP-118): Development, factor structure, reliability, and validity. Psychological Assessment, 20, 23-34.

Vitaliano, P. P., Russo, J., Young, H. M., Becker, J., & Maiuro, R. D. (1991). The screen for caregiver burden. The Gerontologist, 31, 76-83.

Vittengl, J. R., Clark, L. A., & Jarrett, R. B. (2004). Improvement in social-interpersonal functioning after cognitive therapy for recurrent depression. Psychological Medicine, 34, 643-658.

Ware, J. E. & Sherbourne, C. (1992). The MOS 36-item short-form health survey (SF-36), I: Conceptual framework and item selection. Medical Care, 30, 473-483.

Ware, J. E. (2000). SF-36 health survey update. Spine, 25, 3130-3139.

Watson, D., O'Hara, M. W., Chmielewski, M., McDade-Montez, E. A., Koffel, E., Naragon, K. et al. (2009). Further validation of the IDAS: Evidence of convergent, discriminant, criterion, and incremental validity. Psychological Assessment, 20, 248-259.

Watson, D., Clark, L.A., & Chmielewski, M. (2008). Structures of personality and their relevance to psychopathology: II. Further articulation of a comprehensive unified trait structure. Journal of Personality, 76, 1545-1548.

Watson, D., O'Hara, M. W., Simms, L. J., Kotov, R., Chmielewski, M., McDade-Montez, E. A. et al., (2007). Development and validation of the Inventory of Depression and Anxiety Symptoms (IDAS). Psychological Assessment, 19, 253-268.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of Positive and Negative Affect: The PANAS scales. Journal of Personality and Social Psychology, 54, 1063-1070.

Watson, D., Clark, L. A., Weber, K., Assenheimer, J. S., Strauss, M. E., & McCormick, R. A. (1995). Testing a tripartite model: II. Exploring the symptom structure of anxiety and depression in student, adult and patient samples. Journal of Abnormal Psychology, 104, 15–25.

Weissman, M. M. (1975). The assessment of social adjustment. Archives of General Psychiatry, 32, 37-365.

Weissman, M. M. & Bothwell, S. (1976). Assessment of social adjustment by patient self-report. Archives of General Psychiatry, 33, 1111-1115.

Weissman, M. M., Paykel, E. S., Siegel, R., & Klerman, G. L. (1971). The social role performance of depressed women: Comparisons with a normal group. American Journal of Orthopsychiatry, 41, 390-405.

Weissman, M., Sholomskas, D., & John, K. (1981). The assessment of social adjustment: An update. Archives of General Psychiatry, 38, 1250-1258.

Whitney, J. A., Kunik, M. E., Molinari, V., Lopez, F. G., & Karner, T. (2004). Psychological predictors of admission and discharge Global Assessment of Functioning Scale scores for geropsychiatric inpatients. Aging & Mental Health, 8, 505-513.

WHOQOL Group (1995). The World Health Organization Quality of Life Assessment (WHOQOL): Position paper from the World Health Organization. Social Science and Medicine, 41, 1403-1409.

WHOQOL Group (1998). Development of the World Health Organization WHOQOL-BREF Quality of Life Assessment. Psychological Medicine, 28, 551-558.

Widiger, T. A. (2005). Five factor model of personality disorder: Integrating science and practice. Journal of Research in Personality, 39, 67-83.

Widiger, T. A. (1998). Four out of five ain't bad. Archives of General Psychiatry, 55, 865-866.

Widiger, T. A., Costa, P. T., & McCrae, R. R. (2002). A proposal for axis II: Diagnosing personality disorders using the five factor model. In P. T. Costa & T. A. Widiger (Eds.), Personality disorders and the five factor model of personality (2nd ed., pp.431-456). Washington DC: American Psychological Association.

Widiger, T. A., & Simonsen, E. (2005). Alternative dimensional models of personality disorder: Finding a common ground. Journal of Personality Disorders, 19, 110-130.

Wieduwilt, K. M. & Jerrell, J. M. (1999). The reliability and validity of the SAS-SMI. Journal of Psychiatric Research, 33, 105-112.

World Health Organization (1980). ICIDH: International classification of functioning and disability. Geneva: World Health Organization

World Health Organization (1988). WHO Psychiatric Disability Assessment Schedule (WHO/DAS). Geneva: World Health Organization.

World Health Organization (2000). WHO Disability Assessment Schedule (WHODAS II) training manual: A guide to administration. Geneva: World Health Organization.

APPENDIX A

TABLES

Table A1

Demographic Data in Student and Community Adult Samples

	Student (%)	Adult (%)	Overall (%)
Income < $20, 000	47.2	24.0	35.8
Income > $80,000	22.9	19.2	21.1
College or above Education	15.7	47.4	31.3
% Single	47.2	32.7	40.1
% Dating	43.1	25.1	34.2
% Married / Cohabiting	9.6	35.5	22.3
% Female	59.6	70.6	65.0
% Caucasian	78.0	84.8	81.3
% with Psychiatric Problem History	7.3	11.8	9.5

Notes. N = 429; student n = 218, non-student n = 211.

Table A2

Descriptive Statistics of Measures in Study 1

Measure (# items)	Mean	SD	Range	Alpha	AIC
Social Adjustment Scale (56)	1.86	0.35	1-3	--	--
Social Functioning Questionnaire (8)	13.40	3.19	8-24	.68	.21
WHODAS-II (36)	15.13	13.25	0-85	.92	.24
Understand/Communicate (6)	3.06	3.10	0-14	.80	.40
Getting Along (5)	1.93	2.60	0-15	.73	.35
Self-Care (4)	0.60	1.51	0-13	.69	.35
Getting Around (5)	1.09	2.37	0-14	.87	.57
Life Activities (4)	2.29	2.86	0-16	.92	.74
Participation (8)	2.95	3.64	0-29	.81	.35
Work/School (4)	3.12	3.10	0-15	.90	.69
MDPF (65)	51.30	20.67	5-116	.94	.20
MDPF (20)	12.54	7.12	0-38	.87	.25
(Higher order) Non-cooperative (10)	12.85	3.80	8-30	.85	.36
Disagreeableness (10)	13.09	3.87	7-32	.83	.33
Non-empathic (5)	8.23	2.31	5-19	.79	.43
Uncaring to Others (5)	7.62	2.38	5-17	.85	.53
(Higher order) Non-coping (10)	11.69	4.62	4-29	.83	.33
Fail Learn from Exp (4)	5.49	1.61	3-10	.65	.32
Inflexibility (6)	7.98	2.50	2-16	.72	.30
Self-Defeating (9)	6.69	4.81	0-25	.87	.43
Lack Self Direction (5)	5.80	2.37	2-14	.71	.33
[a]Ineffectiveness (4)	4.94	1.99	2-11	.69	.36
[a]Pessimism (6)	8.31	2.92	3-20	.75	.33
[a]Impulsivity (6)	6.48	3.35	0-18	.85	.49
[a]Instability (5)	7.67	2.99	2-17	.86	.55
SIPP-SF (60)	97.05	23.98	61-174	.95	.24
Self-Control (12)	19.00	5.90	12-38	.89	.40
Identity (12)	18.04	5.88	12-41	.89	.40
Relation (12)	21.44	6.54	12-42	.85	.32
Social Concordance (12)	18.79	5.06	12-37	.83	.29
Responsibility (12)	19.79	5.95	12-39	.87	.36
WHOQOL-BREF (26)	102.96	12.73	52-130	.91	.28
General (2)	8.19	1.35	4-10	.61	.44
Physical (7)	29.11	3.82	14-35	.76	.31
Psychological (6)	22.95	3.81	8-30	.82	.43
Social Relations (3)	11.42	2.32	3-15	.64	.37
Environment (8)	31.29	4.45	14-40	.76	.28
Satisfaction with Life Scale (5)	14.41	6.20	5-35	.88	.59

Table A2 (cont.)

Measure (# items)	Mean	SD	Range	Alpha	AIC
PWB (56)	251.30	33.85	127-316	.95	.25
Autonomy (9)	37.78	7.19	12-54	.82	.34
Environmental Mastery (9)	40.83	7.08	14-54	.84	.37
Table A2 (cont.)					
Self-Acceptance (9)	41.86	7.98	12-54	.89	.47
Positive Relations (9)	43.94	7.87	15-54	.87	.43
Purpose in Life (9)	42.53	7.31	13-54	.84	.37
Personal Growth (9)	44.36	6.50	21-54	.82	.34
BFI (44)					
Neuroticism (8)	22.11	6.25	8-36	.80	.33
Extraversion (8)	28.07	5.92	9-40	.82	.36
Agreeableness (9)	33.04	5.45	14-45	.73	.23
Conscientiousness (9)	32.97	6.12	15-45	.79	.29
Openness (10)	38.63	6.05	20-50	.79	.27
IDAS (64)					
General Depression (20)	36.46	11.41	20-94	.91	.34
Dysphoria (10)	17.48	6.74	10-48	.89	.45
Lassitude (6)	12.48	4.30	6-27	.76	.35
Insomnia (6)	10.75	4.23	6-30	.80	.40
Suicidality (6)	6.67	2.25	6-28	.86	.51
Appetite Loss (3)	4.43	2.33	3-15	.89	.73
Appetite Gain (3)	5.60	2.62	3-15	.80	.57
Ill Temper (5)	7.40	2.90	5-23	.80	.44
Well-Being (8)	26.56	6.61	8-40	.91	.56
Social Anxiety (5)	7.56	3.10	5-23	.81	.46
Panic (8)	10.02	3.37	8-30	.83	.38
Traumatic Intrusion (4)	5.66	2.55	4-17	.79	.48
PANAS (20)					
Negative Affect (10)	19.35	6.88	10-45	.87	.40
Positive Affect (10)	34.62	7.17	10-50	.89	.45

Notes. [a]Scale does not contribute items to either higher order scale; *N*=429. *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life-Brief Version; *PWB* = Scales of Psychological Well-Being; *BFI* = Big Five Inventory; *IDAS* = Inventory of Depression and Anxiety Symptoms; *PANAS* = Positive and Negative Affect Schedule.

Table A3

Correlations among Original Daily Functioning Measures in Study 1

Measure	1	2	3	4	5	6	7	8
1. WHODAS-II Understand/Communicate								
2. WHODAS-II Getting Along	.50							
3. WHODAS-II Self-Care	.43	.45						
4. WHODAS-II Getting Around	.44	.40	.50					
5. WHODAS-II Life Activities	*.39*	.44	*.33*	*.34*				
6. WHODAS-II Participation	.49	*.35*	*.37*	*.31*	.46			
7. WHODAS-II Work/School	*.36*	.43	*.32*	.44	*.33*	*.37*		
8. Social Functioning Questionnaire	.47	.56	.25	.28	.45	*.35*	.46	
9. Social Adjustment Scale	.44	.48	.18	.25	*.38*	.44	*.39*	**.64**

Notes. *N*=429. WHODAS II = World Health Organization Disability Assessment Schedule-II. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. All correlations significant ($p < .0001$), except .18 ($p < .001$).

Table A4

Correlations among Original Personality Functioning Measures in Study 1

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. MDPF Disagree															
2. MDPF NonEmp	.55														
3. MDPF Uncare	**.64**	**.63**													
4. MDPF FailLearn	.44	.40	*.36*												
5. MDPF Inflex	**.63**	.45	.45	*.39*											
6. MDPF SDefeat	.41	.24	*.34*	.43	.41										
7. MDPF LackDir	.40	*.30*	*.33*	.52	*.39*	**.65**									
8. MDPF Ineffectiveness	*.32*	.20	.22	.44	*.31*	**.62**	.56								
9. MDPF Pessimism	*.34*	.23	*.33*	.44	*.39*	.59	.55	.58							
10. MDPF Impulsivity	.24	.20	.17	*.33*	.17	*.35*	*.36*	.29	.20						
11. MDPF Instability	.29	.01	.06	.25	*.39*	.42	.44	.52	.46	.18					
12. SIPP Self-Control	.50	.25	*.32*	.44	.46	.59	.55	.56	.43	.50	.55				
13. SIPP Identity	*.38*	.20	*.36*	.40	*.36*	**.66**	**.64**	**.60**	**.61**	*.30*	.45	**.68**			
14. SIPP Relation	.43	*.37*	.53	*.32*	*.36*	**.60**	.44	.44	.46	.22	.22	.49	**.66**		
15. SIPP SocConcord	**.71**	.47	.54	.40	**.60**	.45	.43	*.37*	*.38*	*.30*	.29	**.67**	.54	.54	
16. SIPP Responsibility	.41	.28	*.34*	.48	*.31*	.58	**.61**	.50	.42	.55	.27	**.63**	**.60**	.50	.54

Notes. *N*=429. *MDPF* = Measure of Disordered Personality Functioning; *SIPP*-SF= Severity Indices of Personality Problems-Short-Form; *Disagree* = Disagreeableness; *NonEmp* = Non-Empathic; *Uncare* = Uncaring to Others; *FailLearn* = Fail to Learn from Experience; *Inflex* = Inflexibility; *SDefeat* = Self-Defeating; *LackDir* = Lack Self-Direction; *SocConcord* = Social Concordance. Correlations greater than .60 are bolded. Correlations in the range .40 ~ .59 are underlined. Correlations in the range .30 ~ .39 are italicized. All correlations significant ($p < .0001$), except .01 and .06 (ns).

Table A5

Correlations among Original Quality of Life / Satisfaction Measures in Study 1

Measure	1	2	3	4	5	6	7	8	9	10	11
1. WHOQOL General											
2. WHOQOL Physical	**.60**										
3. WHOQOL Psychological	**.67**	**.63**									
4. WHOQOL Social Relations	*.46*	*.41*	.54								
5. WHOQOL Environment	.50	**.60**	.58	*.44*							
6. Satisfaction with Life Scale	.59	*.41*	**.67**	.57	*.43*						
7. PWB Autonomy	.23	.20	.39	.32	.21	.31					
8. PWB Environmental Mastery	.52	.56	**.66**	*.47*	**.63**	.56	.39				
9. PWB Self-Acceptance	.56	*.44*	**.74**	.58	*.47*	**.72**	.50	**.66**			
10. PWB Positive Relations	.36	.34	.51	.58	*.43*	*.49*	.34	.55	**.66**		
11. PWB Purpose in Life	*.40*	.37	.51	*.40*	.39	*.44*	.34	.57	**.64**	.51	
12. PWB Personal Growth	.32	.25	*.42*	.35	.33	.34	*.42*	*.43*	.57	*.46*	.58

Notes. *N*=429. *PWB* = Measure of Psychological Well-Being; *WHOQOL* = World Health Organization Quality of Life – Brief Version. Correlations greater than |.60| are bolded. Correlations in .50 ~ .59 range are underlined. Correlations in range .40 ~ .49 are italicized. All correlations were significant at $p < .0001$.

Table A6

Correlations between Original Daily Functioning and Personality Functioning Measures in Study 1

Measure	WHOuc	WHOga	WHOsc	WHOgp	WHOla	WHOpar	WHOw/s	SFQ	SAS
MDPF Disagree	*.30*	.24	.25	*.37**	.20	.24	.23	*.37**	*.34*
MDPF NonEmp	.18	.10	.14	.28	.09	.05	.01	.22	.55*
MDPF Uncare	.21	.09	.10	*.32*	.11	.09	.10	*.37**	.27
MDPF FailLearn	*.34**	.13	.12	.23	.12	.21	.09	*.31*	*.33**
MDPF Inflex	.24	.15	.15	*.33**	.12	.19	.22	*.30*	*.30*
MDPF SDefeat	.48	.20	.16	.40	.24	*.38*	*.39*	.58*	.55
MDPF LackDir	.47	.22	.22	*.34*	.27	*.35*	*.30*	.50*	.48
MDPF Ineffect	.43	.25	.18	*.37*	.24	*.32*	*.35*	.48*	.48*
MDPF Pess	*.36*	.14	.09	*.30*	.14	.26	*.33*	.47*	.44
MDPF Impul	*.37**	.09	.20	.11	.12	.27	.07	.22	*.30*
MDPF Insta	*.31*	.15	.17	.25	.11	.29	*.36**	*.35**	*.34*
SIPP SelfCon	.50†	.26†	*.33*†	*.39*	.28	*.38*	.42	.55*	.54*
SIPP Identity	.49	.25†	.23	.49	.28	*.34*	.53†	**.67***	.59†
SIPP Relation	.41	.20	.17	.51†	.29	.23	*.35*	**.69***†	.57
SIPP SocConcord	.40	.24	.26	.43	.22	.28	*.33*	.51*	.45
SIPP Response	.51†	.23	.28	.41	*.37*†	.50†	*.30*	.56*	.55*

Notes. N=429. *MDPF* = Measure of Disordered Personality Functioning; *SIPP* = Severity Indices of Personality Problems-Short Form; *Disagree* = Disagreeableness; *NonEmp* = Non-Empathic; *Uncare* = Uncaring to Others; *FailLearn* = Fail to Learn from Experience; *Inflex* = Inflexibility; *SDefeat* = Self-Defeating; *LackDir* = Lack Self-Direction; *Ineffect* = Ineffectiveness; *Pess* = Pessimism; *Impul* = Impulsivity; *Insta* = Instability; *SelfCon* = Self-Control; *SocConcord* = Social Concordance; *Response* = Responsibility; *WHOuc* = WHODAS-II Understanding and Communicating; *WHOga* = WHODAS-II Getting Around; *WHOsc* =

Table A6 (cont.)

WHODAS-II Self-Care; *WHOgp* = WHODAS-II Getting Along with People; *WHOla* = WHODAS-II Leisure Activity; *WHOpar* = WHODAS-II Participation in Society; *WHOw/s* = WHODAS-II Work/School; *SFQ* = Social Functioning Questionnaire; *SAS* = Social Adjustment Scale. Correlations greater than .60 are bolded. Correlations in the range .40 ~ .59 are underlined. Correlations in the range .30 ~ .39 are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A7

Correlations between Original Daily Functioning and Quality of Life / Satisfaction Measures in Study 1

Measure	WHOuc	WHOga	WHOsc	WHOgp	WHOla	WHOpar	WHOw/s	SFQ	SAS
WHOQOL General	*-.38*	*-.36*	-.24	-.41	*-.34*	*-.30*	-.53*	-.52*	-.48
WHOQOL Physical	-.40	-.49†	*-.35*†	-.41	*-.37*†	-.47	-.58*†	-.46	-.52
WHOQOL Psychological	-.44	-.23	-.19	-.41	*-.31*	*-.38*	-.54	-.58*	-.56
WHOQOL Social Relations	*-.31*	-.20	-.14	-.50†	-.25	-.22	*-.36*	-.55*	-.55*
WHOQOL Environment	-.44	*-.30*	*-.31*	-.45	*-.37*†	-.40	-.42	-.51	-.58*
Satisfaction with Life Scale	*-.33*	-.12	-.10	*-.35*	-.22	-.28	*-.33*	-.53	-.56*
PWB Autonomy	-.25	-.10	-.09	-.24	-.14	-.11	-.14	*-.32**	-.27
PWB Environmental Mastery	-.52†	-.24	-.28	-.43	*-.37*†	-.49†	-.45	**-.67†***	**-.62†**
PWB Self-Acceptance	-.44	-.18	-.16	-.41	-.22	-.26	-.40	**-.60***	-.55
PWB Positive Relations	-.40	-.19	-.21	-.50†	-.24	-.18	*-.30*	**-.67†***	-.55
PWB Purpose in Life	-.45	-.22	-.20	-.29	-.19	*-.30*	-.25	-.48*	-.44
PWB Personal Growth	*-.32*	-.18	-.14	-.29	-.10	-.18	-.21	*-.35**	-.27

Notes. *N*=429. *SAS* = Social Adjustment Scale; *PWB* = Scale of Psychological Well-Being; *WHOQOL* = WHO Quality of Life- Brief Version; *WHOuc* = WHODAS-II Understanding and Communicating; *WHOga* = WHODAS-II Getting Around; *WHOsc* = WHODAS-II Self-Care; *WHOgp* = WHODAS-II Getting Along with People; *WHOla* = WHODAS-II Leisure Activity; *WHOpar* = WHODAS-II Participation in Society; *WHOw/s* = WHODAS-II Work/School; *SFQ* = Social Functioning Questionnaire; *SWLS* = Satisfaction with Life Scale. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A8

Correlations between Original Quality of Life / Satisfaction and Personality Functioning Measures in Study 1

Measure	QLgen	QLphy	QLpsy	QLsrel	QLenv	SWLS	PWaut	PWenv	PWacc	PWpos	PWpur	PWper
MDPF Disagree	-.28	-.*34*	-.27	-.27	-.*31*	-.19	-.14	-.*37*	-.*31*	-.43*	-.24	-.*33*
MDPF NonEmp	-.12	-.16	-.14	-.26	-.17	-.15	-.14	-.17	-.22	-.43*	-.21	-.*36*
MDPF Uncare	-.17	-.21	-.23	-.*35*	-.24	-.21	-.15	-.28	-.*31*	-.56*	-.22	-.*32*
MDPF FailLearn	-.24	-.25	-.*32*	-.25	-.28	-.*33*	-.*31*	-.43	-.43	-.*35*	-.44	-.46*
MDPF Inflex	-.23	-.28	-.27	-.23	-.26	-.21	-.18	-.*34*	-.*31*	-.*38**	-.19	-.*36*
MDPF SDefeat	-.41	-.*37*	-.57	-.47	-.*39*	-.55	-.*35*	**-.61**	**-.65***	-.56	-.52	-.42
MDPF LackDir	-.42	-.42	-.52	-.42	-.41	-.49	-.43	-.59*	**-.60***	-.45	-.59*†	-.45
MDPF Ineffect	-.42	-.40	-.57*	-.*38*	-.41	-.47	-.45†	-.57*	-.58*	-.43	-.47	-.41
MDPF Pess	-.44	-.*38*	-.57	-.43	-.*39*	-.51	-.*39*	-.55	**-.67***	-.45	-.50	-.52†
MDPF Impul	-.15	-.21	-.24	-.13	-.27	-.16	-.21	-.*33*	-.25	-.20	-.*39**	-.17
MDPF Insta	-.*30*	-.*32*	-.45	-.19	-.*33*	-.27	-.*33*	-.50*	-.40	-.21	-.23	-.26
SIPP SelfCon	-.*37*	-.43	-.51	-.*33*	-.47†	-.*36*	-.28	**-.64***	-.50	-.45	-.42	-.*35*
SIPP Identity	-.51†	-.51†	**-.73**†	-.53	-.48†	-.56†	-.42	**-.69**†	**-.77**†*	**-.63**	-.57	-.46
SIPP Relation	-.*34*	-.*34*	-.50	-.55†	-.40	-.44	-.*30*	-.52	-.57	**-.76***†	-.43	-.*38*
SIPP SocCncrd	-.*31*	-.*36*	-.*38*	-.*32*	-.*39*	-.26	-.16	-.49	-.41	-.53*	-.*37*	-.46
SIPP Response	-.41	-.42	-.49	-.*36*	-.43	-.40	-.*30*	**-.62***	-.50	-.45	-.57	-.*35*

Notes. *N*=429. *MDPF* = Measure of Disordered Personality Functioning; *PWaut* = Scale of Psychological Well-Being Autonomy; *PWenv* = Scale of Psychological Well-Being Environmental Mastery; *PWacc* = Scale of Psychological Well-Being Self-Acceptance; *PWpos* = Scale of Psychological Well-Being Positive Relations with Others; *PWpur* = Scale of Psychological Well-Being Purpose in Life; *PWper* = Scale of Psychological Well-Being Personal Growth; *QLgen* = WHOQOL-BREF General; *QLphy* = WHOQOL-BREF Physical; *QLpsy* = WHOQOL-BREF Psychological; *QLsrel* = WHOQOL-BREF Social Relations; *QLenv* = WHOQOL-BREF

Table A8 (cont.)

Environment; *SWLS* = Satisfaction with Life Scale; *SIPP* = Severity Indices of Personality Problems- Short Form; *Disagree* = Disagreeableness; *NonEmp* = Non-Empathic; *Uncare* = Uncaring to Others; *FailLearn* = Fail to Learn from Experience; *Inflex* = Inflexibility; *SDefeat* = Self-Defeating; *LackDir* = Lack Self-Direction; *Ineffect* = Ineffectiveness; *Pess* = Pessimism; *Impul* = Impulsivity; *Insta* = Instability; *SelfCon* = Self-Control; *SocCncrd* = Social Concordance; *Response* = Responsibility. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A9

Correlations among BFI and Original Psychosocial Functioning Measures in Study 1

Measure	N	E	A	C	O	R^2
Social Adjustment Scale	.40*	-.30	-.25	-.36	-.13	.30
Social Functioning Questionnaire	.41*	-.31	-.26	-.33	-.08	.30
WHODAS-II *Means*	.19	-.12	-.15	-.27	-.06	.14
Understand/Communicate	.21	-.16	-.17	-.46*	-.12	.24
Getting Along	.22	-.34*	-.22	-.23	-.06	.19
Self-Care	.11	.00	-.13	-.28*	-.02	.09
Getting Around	.07	-.11	-.12	-.15*	-.10	.04
Life Activities	.15	-.09	-.11	-.28*	.02	.10
Participation	.35*	-.13	-.15	-.11	.02	.14
Work/School	.22	-.03	-.13	-.38*	-.12	.18
MDPF *Means*	.34	-.24	-.36	-.30	-.22	.36
Disagreeableness	.30	-.17	**-.62*†**	-.21	-.17	.41
Non-empathic	.03	-.27	-.48*	-.20	-.21	.32
Uncaring to Others	.12	-.36	-.55*	-.18	-.17	.39
Fail Learn from Exp	.23	-.18	-.25	-.32*	-.27	.21
Inflexibility	.36	-.24	-.52*	-.11	-.23	.34
Self-Defeating	.42*	-.35	-.29	-.37	-.20	.36
Lack Self Direction	.37	-.24	-.20	-.44*	-.23	.33
Ineffectiveness	.48*	-.28	-.21	-.39	-.25	.38
Pessimism	.47*	-.29	-.27	-.28	-.31	.34
Impulsivity	.07	.12	-.22	-.54*	-.09	.36
Instability	**.73*†**	-.09	-.22	-.17	-.23	.56
SIPP-SF *Means*	.36	-.24	-.39	-.40	-.14	.41
Self-Control	.51*	-.09	-.43	-.39	-.16	.44
Identity	.49*	-.35	-.25	-.34	-.17	.38
Relation	.28	-.45*	-.38	-.28	-.15	.34
Social Concordance	.30	-.15	-.58*	-.24	-.12	.38
Responsibility	.20	-.14	-.27	**-.68*†**	-.10	.50
WHOQOL-BREF *Means*	-.35	.25	.20	.27	.11	.22
General	-.35*	.22	.17	.24	.09	.19
Physical	-.33*	.20	.22	.28	.08	.19
Psychological	-.49*	.31	.23	.36	.19	.36
Social Relations	-.26	.32*	.18	.21	.13	.17
Environment	-.33*	.18	.19	.27	.07	.18
Satisfaction with Life Scale	-.35*	.28	.18	.25	.13	.21
PWB *Means*	-.32	.29	.18	.29	.27	.29
Autonomy	-.26	.26	-.06	.20	.36*	.26
Environmental Mastery	-.51*	.20	.24	.36	.13	.36

Table A9 (cont.)

Measure	N	E	A	C	O	R^2
Self-Acceptance	-.42*	*.35*	.22	.29	.29	.32
Positive Relations	-.28	.49*†	*.37*	.26	.19	.36
Purpose in Life	-.18	.17	.12	.42*	.15	.21
Personal Growth	-.23	.22	.19	.17	.45*†	.24

Notes. *N*=429. R^2 = Overall variance of BFI scales predicting psychosocial functioning (sub)scales; *BFI* = Big Five Inventory; *WHODAS- II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life - Brief Version; *PWB* = Scales of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A10

Correlations between IDAS and Original Psychosocial Functioning Measures in Study 1

Measure	GD	Dys	Lass	Insom	Suici	AppL	AppG	ITemp	WBeing	SAnx	Pan	TIntr
Social Adjustment Scale	**.61***	.59	.45	.40	*.32*	*.32*†	.28†	.45	-.45	.46	.40	*.36*
SFQ	.58*	.57*	*.36*	*.35*	*.36*	.26	.25	.44	-.48	.44	*.37*	.42
WHODAS-II *Means*	.43	.43	*.34*	.25	.28	.24	.22	*.31*	-.27	*.35*	*.35*	*.32*
Understand/Communicate	.51	.53*	*.39*	.25	*.37*	.29	.26	*.33*	-*.33*	.42	.42	*.32*
Getting Along	.45	.43	*.31*	.25	*.32*	.23	.25	*.35*	-*.34*	.51*	*.35*	*.34*
Self-Care	*.34**	*.34**	.27	.22	*.30*	.29	.22	.26	-.13	.23	*.35**	*.34**
Getting Around	.26*	.25*	.18	.16	.19	.15	.16	.24	-.20	.22	.26*	.21
Life Activities	*.33**	*.33**	*.31*	.21	.15	.08	.20	.23	-.19	.29	.25	.24
Participation	.57*	.57*	.43	*.34*	.41	*.31*	.27	.44	-*.36*	.42	.46†	.47†
Work/School	.52*	.52*	.49	*.31*	.23	.28	.20	.29	-*.31*	*.30*	*.36*	*.31*
MDPF *Means*	*.35*	*.34*	.22	.19	.20	.14	.16	.28	-*.38**	.26	.21	.21
Disagreeableness	.28	.27	.18	.15	.14	.12	.16	*.30**	-*.31**	.21	.22	.23
Non-empathic	.07	.05	-.02	.06	.04	.02	.01	.12	-.20*	.12	.08	.07
Uncaring to Others	.16	.14	.07	.11	.12	.07	.05	.14	-.26*	.21	.08	.11
Fail Learn from Exp	.25	.24	.12	.13	.19	.10	.11	.19	-*.39**	.18	.16	.09
Inflexibility	.26	.26	.16	.13	.08	.07	.19	*.31*	-*.30**	.24	.18	.19
Self-Defeating	.52*	.52*	*.33*	.24	*.36*	.20	.18	*.37*	-.52*	.41	*.30*	.26
Lack Self Direction	.48	.47	*.33*	.24	.29	.18	.20	*.31*	-.53*	*.33*	.24	.28
Ineffectiveness	.46	.47	.29	.23	.29	.18	.27	*.34*	-.51*	*.37*	.27	.29
Pessimism	.45	.43	.25	.25	*.31*	.20	.18	*.34*	-.59*	*.37*	.27	.27
Impulsivity	*.30**	.28	.28	.23	.20	.26	.13	.25	-.13	.14	.24	.21
Instability	.47	.49*	*.34*	.26	.21	.17	.26	.42	-.40	.28	.25	.27
SIPP-SF *Means*	.54	.52	*.38*	*.31*	*.32*	.25	.24	.44	-.44	.40	*.35*	*.38*
Self-Control	**.60***	.59*	.45	*.37*	*.31*	.27	.28†	.55†	-.42	*.33*	*.35*	.45

Table A10 (cont.)

Measure	GD	Dys	Lass	Insom	Suici	AppL	AppG	ITemp	WBeing	SAnx	Pan	TIntr
Identity	**.67***†	**.66***†	.43	*.36*	.47†	*.30*	.28†	.44	-.57	.54†	.41	.42
Relation	.48*	.45	.28	.28	*.30*	.26	.16	*.36*	-.43	.48*	*.30*	*.34*
Social Concordance	.40	*.39*	.28	.23	.22	.17	.25	.49*	-*.36*	*.31*	*.33*	*.35*
Responsibility	.51*	.50*	.43	.28	*.30*	.24	.22	*.32*	-.40	*.33*	*.32*	*.31*
WHOQOL-BREF *Means*	-.55	-.51	-*.38*	-*.35*	-*.32*	-.25	-.21	-*.35*	.52	-*.37*	-*.34*	-*.34*
General	-.48*	-.45	-*.31*	-.28	-*.33*	-.20	-.17	-*.36*	.49*	-*.31*	-.29	-.29
Physical	**-.62***	-.56	-.51†	-.47†	-*.33*	-*.33*†	-.28†	-*.36*	.46	-.40	-.44	-.40
Psychological	**-.68***†	**-.65**†	-.45	-*.37*	-.42	-.28	-.29†	-.40	**.67***†	-.45	-*.38*	-*.39*
Social Relations	-.42	-*.39*	-.20	-.25	-.27	-.19	-.10	-.27	.49*	-*.35*	-.21	-.25
Environment	-.52*	-.49	-*.38*	-*.36*	-.25	-.25	-.22	-*.37*	.46	-*.36*	-*.37*	-*.38*
SWLS	-.49	-.46	-.25	-.25	-*.36*	-.19	-.11	-.28	.58*	-*.31*	-.22	-.23
PWB *Means*	-.44	-.42	-.25	-.21	-.25	-.19	-.18	-.30	-.53	-*.37*	-.24	-.25
Autonomy	-.23	-.24	-.10	.07	-.08	-.07	-.21	-.17	*.33*	-*.36**	-.07	-.16
Environmental Mastery	**-.68***†	**-.66**†	-.48	-.40	-*.33*	-*.31*	-.28	-.44	.59	-.45	-*.38*	-.42
Self-Acceptance	-.53	-.51	-.29	-.24	-*.36*	-.20	-.17	-*.36*	**.65***	-.44	-.28	-.29
Positive Relations	-.41	-*.38*	-.20	-.20	-.24	-.19	-.14	-.29	.49*	-.43	-.24	-.27
Purpose in Life	-.45	-.43	-.29	-.23	-.28	-.24	-.16	-.29	.55*	-.28	-*.30*	-.19
Personal Growth	-.26	-.24	-.08	-.09	-.16	-.10	-.13	-.25	.51*	-.25	-.17	-.15

Notes. N=429. IDAS = Inventory of Depression and Anxiety Symptoms; GD = General Depression; Dys = Dysphoria; Lass = Lassitute; Insom = Insomnia; Suici = Suicidality; AppL = Appetite Loss; AppG = Appetite Gain; ITemp = Ill Temper; WBeing = Well Being; SAnx = Social Anxiety; Pan = Panic; TIntr = Traumatic Intrusion; WHODAS- II = World Health Organization Disability Assessment Schedule II; MDPF = Measure of Disordered Personality Functioning; SFQ = Social Functioning Questionnaire; SIPP-SF = Severity Indices of Personality Problems – Short Form; SWLS = Satisfaction with Life Scale; WHOQOL-BREF = World Health

Table A10 (cont.)

Organization Quality of Life - Brief Version; PWB = Scales of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A11

Correlations among PANAS and Original Psychosocial Functioning Measures in Study 1

Measure	Positive Affect	Negative Affect	R^2
Social Adjustment Scale	-.39	.52*	.35
Social Functioning Questionnaire	-.38	.43*	.27
WHODAS-II *Means*	-.25	.33	.16
Understand/Communicate	-.31	.45*	.25
Getting Along	-.32*	.31*	.17
Self-Care	-.17	.23*	.07
Getting Around	-.22*	.20*	.07
Life Activities	-.15	.24*	.07
Participation	-.30	.43*	.23
Work/School	-.30	.44*	.23
MDPF *Means*	-.37	.32	.22
Disagreeableness	-.33*	.26	.16
Non-empathic	-.27*	.02	.07
Uncaring to Others	-.32*	.08	.10
Fail Learn from Exp	-.39*	.27	.19
Inflexibility	-.28*	.29*	.13
Self-Defeating	-.45	.47*	.35
Lack Self Direction	-.50*	.44	.36
Ineffectiveness	-.49*	.42	.35
Pessimism	-.52*	.40	.36
Impulsivity	-.18	.29*	.10
Instability	-.31	.51*	.30
SIPP-SF *Means*	-.38	.44	.29
Self-Control	-.33	.55*	.35
Identity	-.50*	.50*	.41
Relation	-.38*	.33	.21
Social Concordance	-.30	.37*	.19
Responsibility	-.37	.44*	.27
WHOQOL-BREF *Means*	.44	-.36	.27
General	.42*	-.32	.23
Physical	.40*	-.36	.24
Psychological	.57*†	-.47	.45
Social Relations	.39*	-.23	.18
Environment	.39*	-.25	.26
Satisfaction with Life Scale	.46*	-.34	.27
PWB *Means*	.44	-.35	.27
Autonomy	.34*	-.25	.15
Environmental Mastery	.45	-.57*†	.43

Table A11 (cont.)

Measure	Positive Affect	Negative Affect	R^2
Self-Acceptance	.53*	-.41	.37
Positive Relations	.43*	-.26	.22
Purpose in Life	.43*	-.33	.25
Personal Growth	.44*	-.22	.21

Notes. *N*=429. R^2 = Overall variance of BFI scales predicting psychosocial functioning (sub)scales; PANAS = Positive and Negative Affect Schedule; Big Five Inventory; WHODAS-II = World Health Organization Disability Assessment Schedule II; MDPF = Measure of Disordered Personality Functioning; SIPP-SF = Severity Indices of Personality Problems – Short Form; WHOQOL-BREF = World Health Organization Quality of Life - Brief Version; PWB = Scales of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Higher correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A12

Varimax-Rotated Factor Loadings for a Four-Factor Solution of WHODAS-II[a]

Domain	Item Content	Factor 1	Factor 2	Factor 3	Factor 4
Und/Comm	Conversation	**.61**	.02	.09	.03
Und/Comm	Understand	**.60**	.06	.19	.14
Get Along	Maintain friendship	**.59**	.07	.23	.15
Get Along	Make new friends	**.56**	.12	.07	.17
Get Along	Get along with people	**.53**	.09	.23	.19
Get Along	Deal with strangers	**.52**	.06	.23	.21
Und/Comm	Problem solving	**.52**	.17	.19	.13
Und/Comm	Learn new tasks	**.51**	.11	.19	.12
Und/Comm	Memory	**.50**	.18	.11	.15
Und/Comm	Concentration	**.49**	.18	.09	.13
Participation	Dignity issues from others	**.44**	**.40**	.05	.03
Self-Care	Eating	.36	.10	.30	-.07
Self Care	Stay alone for a few days	.28	.08	.28	.24
General	Interfere with life	.12	**.80**	.09	.12
Participation	Health impacting emotion	.10	**.79**	.03	-.03
Participation	Time spent on health	.07	**.67**	.09	-.07
Participation	Financial burden d/t health	-.01	**.60**	.24	.19
Participation	Relax and pleasure	.19	**.59**	.17	.13
Participation	Family burden d/t health	-.02	**.59**	.20	.19
Participation	Problems d/t barriers	.37	**.47**	.05	.03
General	Overall health condition	.12	**.46**	.19	.11
Participation	Joining community activity	.30	**.40**	.06	.18
Get Along	Sexual activity	.24	.32	.05	.18
Get Around	Get out of home	.28	.18	**.79**	.11
Get Around	Standing up	.21	.23	**.75**	.01
Get Around	Moving around	.19	.19	**.72**	.03
Get Around	Walking a kilometer	.07	.28	**.64**	.24
Self-Care	Washing body	.35	-.01	**.61**	.15
Self-Care	Getting dressed	**.44**	.00	**.55**	.03
Get Around	Standing for long periods	.16	.28	**.53**	.17
Life Activities	Getting chores done	.22	.13	.11	**.82**
Life Activities	Take care of household work	.26	.16	.12	**.81**
Life Activities	Doing important chores	.23	.13	.13	**.80**
Life Activities	Getting done chores quickly	.22	.16	.10	**.77**
% of common variance accounted for		24.7	22.9	20.9	17.6

Table A12 (cont.)

Notes. *N= 429*. *Und/Comm* = Understanding and Communicating. Loadings > |.40| bolded. *Factor 1* = Communicating and Interpersonal Functioning; *Factor 2* = Basic Functioning; *Factor 3* = Difficulties due to Health Problems; *Factor 4* = Household Duties. Items selected for inclusion in Phase 2 are bolded. [a]*Work/School items* excluded.

Table A13

Varimax-Rotated Factor Loadings for a Four-Factor Solution of MDPF

Domain	Item Content	Factor 1	Factor 2	Factor 3	Factor 4
Non-Empathic	Understand feelings	**.71**	.05	.09	-.07
Uncaring	Feel warm toward others	**.71**	.12	-.05	-.03
Uncaring	Warm/affectionate	**.70**	.15	-.02	-.04
Uncaring	Caring	**.70**	.15	.09	.01
Disagreeable	Friends see me agreeable	**.69**	.13	.15	.23
Uncaring	Good-hearted	**.66**	.19	.07	.08
Disagreeable	Get along with others	**.65**	.09	-.05	.15
Non-empathic	Willing to lend an ear	**.65**	.08	.06	-.07
Non-empathic	Connect easily with others	**.64**	.21	-.05	-.05
Disagreeable	People see me agreeable	**.63**	.10	.10	.16
Disagreeable	Team player	**.60**	.12	.02	.24
Disagreeable	Described as a nice person	**.60**	.13	.04	.15
Inflexibility	Described as a rigid person	**.55**	.18	.04	.29
Uncaring	Always there for others	**.55**	.18	.01	-.09
Non-empathic	Put oneself in others' shoes	**.53**	.09	.12	-.07
Inflexibility	Flexible thoughts and actions	**.52**	.14	-.08	.28
Disagreeable	Understand other's view	**.52**	.02	.09	.13
Disagreeable	Difficult dealing with others	**.49**	.12	.14	.29
Disagreeable	Family sees me agreeable	**.46**	.19	.08	.27
Non-empathic	Concerned about others	**.42**	-.01	.20	-.01
Lack direction	Others see me as reliable	**.42**	.23	.24	.06
Fail to learn	Learned about self	.38	.20	-.06	-.04
Inflexibility	Adaptable to situations	.38	.30	-.06	.24
Fail to learn	Learn from situations	.38	.34	.02	-.04
Inflexibility	Unwilling to bend on issues	.32	.13	.05	.25
Self-defeating	Fail more than succeed	.03	**.65**	.25	.03
Pessimism	Optimistic	.18	**.64**	-.03	.12
Ineffectiveness	Cope poorly with things	.07	**.63**	.06	.31
Self-defeating	Didn't create opportunities	.09	**.62**	.05	.09
Self-defeating	Involved in things going wrong	.20	**.61**	.33	.09
Pessimism	Low expectations for self	.15	**.61**	.04	-.03
Self-defeating	Less opportunities d/t personality	.30	**.60**	.02	.11
Pessimism	Expect I shall do well	.19	**.59**	.02	.04
Self-defeating	Personality caused to lose out	.25	**.59**	.05	.08
Self-defeating	I am my worst enemy	.04	**.57**	.12	.17
Lack direction	Go around circles in life	.10	**.57**	.16	.21
Self-defeating	Do things that hinder success	.03	**.56**	.38	.08
Lack direction	Controlled by external things	.10	**.55**	.19	.08

Table A13 (cont.)

Domain	Item Content	Factor 1	Factor 2	Factor 3	Factor 4
Ineffectiveness	Difficulty organizing resources	.09	**.54**	.32	.06
Pessimism	Avoid doing things	.16	**.51**	.07	.16
Ineffectiveness	Confident to handle situation	.14	**.50**	-.01	.18
Lack direction	Lack control over life direction	.03	**.49**	.15	.10
Self-defeating	Turn down opportunities	.20	**.47**	.09	.19
Ineffectiveness	Able to bounce back	.07	**.43**	-.10	.10
Lack direction	Resourcefully handle problems	.25	**.43**	.07	.16
Fail to learn	Repeat same mistakes	.14	**.41**	**.40**	.19
Self-defeating	Would achieve if understood	.20	.39	.11	.16
Fail to learn	Learn from mistakes	.30	.38	.15	-.02
Pessimism	Expect bad things to happen	.08	.37	.06	.17
Pessimism	Expect the best	.13	.34	-.25	.20
Disagreeable	Unable to get along with others	.17	.17	.04	.10
Impulsivity	Act without thinking	.05	.18	**.78**	.00
Impulsivity	Fail to plan ahead	.14	.20	**.76**	.04
Impulsivity	Tendency to be reckless	.18	.18	**.68**	.03
Impulsivity	Fail to think of consequences	.23	.17	**.63**	.03
Impulsivity	Say things without thinking	.14	.12	**.62**	.17
Impulsivity	Spur of the moment actions	-.16	.04	**.58**	-.05
Instability	Get in a tizz when stressed	-.03	.35	.04	**.68**
Instability	Easily flustered	-.01	.36	.12	**.63**
Instability	Cope well with stress	-.11	**.41**	-.05	**.61**
Instability	Remain calm under stress	-.09	.30	-.09	**.60**
Inflexibility	Upset when things not my way	.27	.14	.17	**.59**
Instability	Overreact to minor frustrations	.07	.34	.07	**.56**
Disagreeable	Difficult when things not my way	.18	.04	.13	**.56**
Inflexibility	Set in my ways	.18	.01	.00	.27
% of common variance accounted for		35.6	33.7	15.3	15.3

Notes. N= 429. Loadings > |.40| bolded. *Factor 1* = Externalizing Dysfunction; *Factor 2* = Internalizing Dysfunction; *Factor 3* = Impulsivity; *Factor 4* = Instability Under Stress. Items selected for inclusion in Phase 2 are bolded.

Table A14

Varimax-Rotated Factor Loadings for a Four-Factor Solution of SIPP-SF

Domain	Item Content	Factor 1	Factor 2	Factor 3	Factor 4
Identity	Feel life is meaningless	**.66**	.24	.12	.10
Identity	Have low opinion of myself	**.66**	.27	.06	.11
Identity	Often see no reason to live	**.62**	.13	.07	.05
Identity	Lack capacity to have fun	**.60**	.08	.36	.24
Identity	Feel not worthy as others	**.57**	.30	.19	-.01
Identity	Hard to enjoy doing things	**.57**	.20	.30	.25
Identity	Confused understanding self	**.56**	**.42**	.12	.12
Identity	Confused about who I am	**.56**	**.45**	.10	.13
Identity	Cannot let myself have good time	**.54**	-.04	.37	.34
Relation	Hard to believe others love me	**.54**	.25	.18	.34
Identity	I'm worthy as others	**.53**	.18	.03	.10
Relation	Hard to feel loved by close people	**.51**	.17	.26	.36
Relation	Think of myself as a loner	**.48**	.06	.13	.34
Relation	Others don't like going along w/me	**.47**	.28	.29	.21
Identity	Activities are enjoyable	**.46**	.15	.15	.15
Identity	Life is worth living	**.46**	.05	.10	.13
Self-Control	Do things I regret	**.44**	**.40**	.35	.10
Self-Control	Have control over feelings	.39	.21	.38	-.04
Relation	Able to form lasting relationships	.19	.04	.05	.12
Responsible	Criticized for lacking responsibility	.09	**.74**	.19	.08
Responsible	Others complain I'm irresponsible	.12	**.68**	.23	.07
Responsible	Lack sense of responsibility	.26	**.67**	.15	.12
Responsible	Not as reliable as should be	.17	**.67**	.12	.10
Responsible	Fail to do things I have to	.34	**.65**	.15	.15
Responsible	Not as hard working as I should be	.16	**.64**	.09	.08
Self-Control	Often act impulsively	.26	**.55**	.32	-.03
Responsible	Tend to start things then give up	.29	**.54**	.08	.20
Responsible	Fail to get job done	.27	**.50**	.11	.11
Self-Control	Unpredictable feeling and behavior	.25	**.48**	.37	-.02
Responsible	Not always keep the rules	-.01	.39	.15	.17
Responsible	Not as sincere as should be	.19	.38	.28	.28
Responsible	Don't pay debts promptly	.24	.37	.15	.07
Responsible	Keep to my agreements	.07	.33	.09	.03
Self-Control	Hard to control aggression	.20	.19	**.66**	.01
Self-Control	Lose control sometimes	.12	.09	**.66**	.06
Self-Control	Been told to try not to lose control	.37	.26	**.57**	-.09
Self-Control	Express inappropriate mood	.38	.16	**.53**	-.09
Soc Concord	Hard to get along with people	.05	.11	**.53**	.24

Table A14 (cont.)

Domain	Item Content	Factor 1	Factor 2	Factor 3	Factor 4
Soc Concord	Hard to cooperate	.13	.27	**.53**	.26
Soc Concord	Hard to respect others	-.02	.11	**.53**	.25
Self-Control	Strong feelings and lose control	.35	.30	**.52**	-.07
Soc Concord	Get angry	.15	.16	**.50**	.04
Soc Concord	Hard not to become aggressive	.07	.33	**.49**	.00
Soc Concord	Comment adversely on others	.12	.20	**.47**	.23
Soc Concord	Feel like hurting others when upset	.17	.14	**.47**	.15
Soc Concord	Easily irritated at work	.35	.13	**.46**	.15
Soc Concord	Others think of me as rude	.08	.13	**.45**	.22
Self-Control	Overreact to minor problems	**.40**	.23	**.40**	-.14
Self-Control	Can't control reaction	.31	.28	.39	-.06
Soc Concord	Get into disputes regularly	.24	.30	.38	.26
Soc Concord	Can collaborate with people	.10	.12	.37	.28
Self-Control	Say things and regret later	.34	.30	.36	.08
Soc Concord	Can easily accept people	.02	-.07	.33	.18
Relation	Hard to show others affection	.11	.10	.18	**.75**
Relation	Hard to express affection	.22	.16	.08	**.72**
Relation	Hard to get attached to others	.15	.10	.10	**.68**
Relation	Can demonstrate affection	.05	.04	.07	**.51**
Relation	Don't show much of myself	.33	.13	.16	**.50**
Relation	Rarely share thoughts and feelings	.22	.10	.11	**.44**
Relation	Hard to enjoy lasting relationships	.33	.30	.23	.38
% of common variance accounted for		23.4	20.7	20.4	12.5

Notes. N= 429. Loadings > |.40| bolded. *Factor 1* = Identity; *Factor 2* = Responsibility; *Factor 3* = Social Concordance; *Factor 4* = Relations. Items selected for inclusion in Phase 2 are bolded.

Table A15

Varimax-Rotated Factor Loadings for a Two-Factor Solution of WHOQOL-BREF

Domain	Item Content	Factor 1	Factor 2
Psychological	How much enjoy life?	**.75**	.25
Psychological	How much life meaningful?	**.71**	.18
Psychological	Satisfied with yourself?	**.68**	.32
General	How would you rate your quality of life?	**.63**	.35
General	How satisfied with health?	**.57**	.25
Psychological	How often do you have negative feelings?	**.55**	.15
Social Relations	Satisfied with personal relationships?	**.50**	.26
Psychological	Accept bodily appearance?	**.48**	.33
Social Relations	Satisfied with sex life?	**.45**	.13
Physical	How much medical treatment needed?	**.43**	.00
Social Relations	Satisfied with support from friends?	**.40**	.27
Physical	Physical pain?	.36	.17
Physical	Satisfied with ability to function daily?	.36	**.61**
Environment	Information availability?	.31	**.60**
Physical	Satisfied with capacity for work?	.27	**.59**
Environment	Satisfied with transport?	.01	**.55**
Environment	Satisfied with health services access?	.03	**.55**
Environment	How safe do you feel?	.22	**.54**
Environment	How healthy is physical environment?	.26	**.53**
Physical	Enough energy?	**.47**	**.50**
Physical	How well do you get around?	.20	**-.62**
Psychological	Concentration	.33	**.45**
Environment	Satisfied with living condition?	.14	**.45**
Environment	Enough money?	.35	**.41**
Physical	Satisfied with sleep?	.32	.35
Environment	Opportunity for leisure activities?	.29	.34
% of common variance accounted for		43.7	38.2

Notes. N= 429. Loadings > |.40| bolded. *Factor 1* = General Health; *Factor 2* = Environment. Items selected for inclusion in Phase 2 are bolded.

Table A16

Varimax-Rotated Factor Loadings for a Three-Factor Solution of PWB

Domains	Item Content	Factor 1	Factor 2	Factor 3
Positive Relation	Feel lonely	**.75**	.08	.14
Positive Relation	Don't have people to listen to me	**.69**	.15	.08
Positive Relation	Lack warm relationship with others	**.68**	.14	.06
Positive Relation	Difficult to maintain relationship	**.68**	.10	.08
Env Mastery	Do not fit well with people	**.60**	.14	-.03
Positive Relation	Other people have more friends	**.60**	.06	.19
Self-acceptance	Feel confident/positive about self	**.59**	.31	.37
Self-acceptance	Pleased at how life turned out	**.58**	.31	.22
Self-acceptance	Disappointed about achievements	**.54**	.39	.20
Positive Relation	I can trust friends / they can trust me	**.52**	.28	.14
Env Mastery	Demands of life get me down	**.51**	.15	.25
Self-acceptance	Made mistakes but worked out	**.51**	.39	.26
Positive Relation	People see me as affectionate	**.50**	.08	.00
Env Mastery	Able to build a lifestyle to my liking	**.50**	.24	.18
Self-acceptance	Not a positive attitude about self	**.50**	.23	.34
Env Mastery	Difficulty arranging satisfying life	**.49**	.19	.24
Purpose in life	Daily activities seem trivial	**.47**	**.42**	.04
Positive Relation	People describe me as a giving person	**.47**	.26	-.05
Self-acceptance	Feel good about who I am	**.47**	.19	.27
Self-acceptance	Like most aspects of my personality	**.46**	.31	.34
Self-acceptance	I won't change my past	**.46**	.20	.23
Self-acceptance	Feel like others got more out of life	**.44**	**.41**	.30
Env Mastery	Feel like in charge of situation	**.42**	.34	.20
Env Mastery	Good at managing responsibilities	**.42**	.38	.17
Positive Relation	Enjoy personal conversations	.37	.25	.03
Env Mastery	Often feel overwhelmed	.35	.12	.20
Env Mastery	Good at taking care of finances	.35	.26	.11
Env Mastery	Good at juggling time	.34	.19	.27
Purpose in life	Setting goals seem waste of time	**.41**	**.62**	.12
Purpose in life	Enjoy making plans & working on them	.37	**.61**	.11
Personal Growth	Developed a lot over time as a person	.26	**.61**	.22
Personal Growth	Haven't improved much as a person	.21	**.58**	.20
Personal Growth	Life has been a process of growth	.15	**.57**	.19
Personal Growth	Gave up making improvements	.27	**.56**	.20
Personal Growth	Don't want to try out new things	.07	**.53**	.08
Purpose in life	Tend to focus on the present	.25	**.53**	.06
Purpose in life	Actively carry out plans	**.43**	**.52**	.16
Purpose in life	Don't have sense of accomplishments	.31	**.48**	.10

Table A16 (cont.)

Domains	Item Content	Factor 1	Factor 2	Factor 3
Personal Growth	Not interested in expanding horizon	.10	**.48**	.17
Purpose in life	Live one day at a time	-.05	**.45**	-.07
Personal Growth	Important to have new experiences	.14	**.44**	.11
Purpose in life	Don't wander aimlessly in life	.33	**.41**	.11
Personal Growth	Don't enjoy new situations	.13	.37	.20
Purpose in life	I've done all there is to life	.14	.35	.06
Personal Growth	Can't teach an old dog new tricks	.09	.31	.18
Autonomy	Change mind if others disagree	.00	.11	**.65**
Autonomy	Decisions not influenced by others	.15	.08	**.63**
Autonomy	Influenced by strong opinions	.05	.09	**.60**
Autonomy	Have confidence in my opinions	.14	.23	**.60**
Autonomy	Difficult to voice opinions	.15	.10	**.58**
Autonomy	Worry about what others think of me	.14	.06	**.53**
Autonomy	Judge by what I think is important	.08	.15	**.49**
Autonomy	Not afraid to voice opinions	.18	.06	**.49**
Autonomy	Being happy with myself is important	.17	.29	**.48**
% of common variance accounted for		32.2	23.3	16.1

Notes. N= 429. Loadings > |.40| bolded. *Factor 1* = Positive Relations; *Factor 2* = Actualization; *Factor 3* = Autonomy. Items selected for inclusion in Phase 2 are bolded.

Table A17

Correlations among Revised Functioning Measures in Study 1

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. WHOCogInt																
2. WHOBasic	.55															
3. WHODailyTsk	.44	*.30*														
4. WHOHltInt	*.34*	*.37*	.21													
5. MDPFInter	.46	.21	.27	*.32*												
6. MDPFImpul	.27	.11	.11	.09	*.38*											
7. MDPFInsta	*.32*	.13	.13	.28	.49	.25										
8. MDPFExter	*.31*	.20	.14	.15	*.37*	.26	.22									
9. SIPPIden	.46	.24	*.30*	.43	**.75**	*.31*	.45	*.39*								
10. SIPPResp	.45	.23	*.39*	*.31*	**.63**	.53	*.34*	*.34*	**.64**							
11. SIPPSoc	.46	.28	.25	*.33*	.52	*.36*	.41	**.61**	**.63**	.57						
12. SIPPRelat	.29	.15	.24	.18	.43	.18	.10	.44	.51	*.34*	*.39*					
13. QOLHlth	-.43	-.26	-*.34*	-.55	**-.65**	-.19	-*.38*	-*.31*	**-.73**	-.46	-.41	-*.38*				
14. QOLEnv	-.49	-*.38*	-*.39*	-.44	-.52	-*.33*	-*.34*	-*.33*	-.53	-.52	-.46	-*.35*	**.64**			
15. PWBAut	-.24	-.04	-.12	-.12	-*.39*	-.23	-*.31*	-.11	-*.35*	-.27	-.15	-.22	*.34*	.21		
16. PWBAct	-*.37*	-.21	-.14	-.21	-.55	-*.34*	-.23	-*.31*	-.49	-.46	-.40	-*.34*	.45	.43	*.34*	
17. PWBPosRel	-.44	-.21	-.28	-*.35*	**-.73**	-.24	-.41	-.42	**-.83**	-.53	-.53	-.58	**.76**	.57	*.39*	.54

Notes. N=429. *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP* = Severity Indices of Personality Problems – Short Form; *Disagree* = Disagreeableness; *NonEmp* = Non-Empathic; *Uncare* = Uncaring to Others; *FailLearn* = Fail to Learn from Experience; *Inflex* = Inflexibility; *SDefeat* = Self-Defeating; *LackDir* = Lack Self-Direction; *Ineffect* = Ineffectiveness; *Pess* = Pessimism; *Impul* = Impulsivity; *Insta* = Instability;

Table A17 (cont.)

SelfCon = Self-Control; *SelfCon* = Self-Control; *SocConcord* = Social Concordance; *Response* = Responsibility. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A18

Mean Correlations Among Revised Psychosocial Functioning Measures in Study 1

Measure	1	2	3	4	5	6	7
1. SFQ[a]							
2. WHODAS-II	.40						
3. MDPF	.40	.22					
4. SIPP-SF	.59	*.32*	.44				
5. SWLS[a]	-.53	-.25	*-.33*	-.26			
6. WHOQOL-BREF	-.59	-.41	*-.39*	-.49	**.61**		
7. PWB	-.50	-.23	*-.37*	-.45	.43	.43	

Notes. a = Original measures. *N*=429. *SFQ* = Social Functioning Questionnaire; *WHODAS-II* = WHO Disability Assessment Schedule – II*; MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *SWLS* = Satisfaction with Life Scale; *PWB* = Scale of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A19

Correlations between BFI and Revised Psychosocial Functioning Measures in Study 1

Measure (Item N)	Alpha (AIC)	N	E	A	C	O	R^2
WHODAS-II *Means*		.18	-.10	-.15	-.24	-.04	.11
Cognitive & Interpersonal (5)	.83 (.49)	.23	-.17	-.20	*-.34**	-.13	.17
Basic Functioning (5)	.86 (.55)	.06	-.09	-.11	-.19*	-.07	.05
Daily Tasks (2)	.88 (.79)	.14	-.07	-.12	-.27*	.02	.10
Difficulties due to Health (5)	.88 (.59)	.28*	-.06	-.14	-.13	.01	.10
MDPF *Means*		.40	-.17	-.36	-.35	-.21	.44
Externalizing Dysfunction (13)	.89 (.38)	.19	-.28	**-.64***†	-.20	-.21	.45
Internalizing Dysfunction (11)	.87 (.38)	.49*	*-.35*	-.26	-.43	-.24	.44
Impulsivity (3)	.81 (.59)	.09	.07	-.23	-.52*	-.14	.32
Instability Under Stress (3)	.80 (.57)	**.70***†	-.10	-.25	-.19	-.22	.56
SIPP-SF *Means*		.32	-.27	-.37	-.40	-.13	.39
Identity Plus (17)	.92 (.40)	.47*	*-.36*	-.29	*-.36*	-.15	.39
Responsibility (6)	.89 (.57)	.23	-.13	-.25	**-.67***†	-.09	.49
Social Concordance (14)	.88 (.34)	*.37*	-.11	-.57*	-.28	-.12	.40
Relations (6)	.82 (.43)	.17	-.45*†	*-.34*	-.21	-.17	.29
WHOQOL-BREF *Means*		-.40	.27	.23	.34	.13	.30
Health (11)	.85 (.34)	-.46*	*.36*	.23	.28	.16	.33
Environment (12)	.85 (.32)	*-.33*	.21	.23	.40*	.10	.26
PWB *Means*		-.30	.30	.13	.26	.29	.28
Autonomy (6)	.77 (.36)	-.25	.24	-.07	.18	*.32**†	.22
Actualization (10)	.81 (.30)	-.16	.19	.13	*.34**	*.33*†	.21
Positive Relations (12)	.90 (.43)	-.47*	.46*†	*.32*	.28	.22	.41

Notes. N=429. R^2 = Overall variance of BFI scales predicting psychosocial functioning (sub)scales; BFI = Big Five Inventory; N = Neuroticism; E = Extraversion; A = Agreeableness; C = Conscientiousness; O = Openness; WHODAS-II = World Health Organization Disability Assessment Schedule II; MDPF = Measure of Disordered Personality Functioning; SIPP-SF = Severity Indices of Personality Problems – Short Form; WHOQOL-BREF = World Health Organization Quality of Life - Brief Version; PWB = Scales of Psychological Well-Being. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A20

Correlations between IDAS and Revised Psychosocial Functioning Measures in Study 1

Measure	GD	Dys	Lass	Insom	Suici	AppL	AppG	ITemp	WBeing	SAnx	Pan	TIntr
WHODAS-II *Means*	*.39*	*.39*	.29	.22	.28	.20	.21	*.30*	-.26	*.31*	*.33*	.29
Cognitive & Interpersonal	.46	.48*	*.32*	.24	*.34*	.26	.28†	*.35*	-*.33*	.43	*.38*	*.31*
Basic Functioning	.23	.23	.15	.16	.22	.15	.14	.21	-.18	.21	.28*	.22
Daily Tasks	*.33**	*.34**	*.31*	.19	.16	.09	.20	.25	-.18	.28	.25	.24
Difficulties due to Health	.50*	.48	*.37*	.28	*.39*	*.31*†	.21	.40	-*.33*	*.33*	.42†	*.39*
MDPF *Means*	*.39*	*.38*	.26	.22	.22	.18	.18	*.32*	-*.37*	.26	.23	.23
Externalizing Dysfunction	.19	.17	.07	.10	.11	.07	.11	.21	-.29*	.20	.15	.16
Internalizing Dysfunction	.58	.57	*.36*	*.30*	*.37*	.23	.22	.40	**-.61***	.43	*.31*	*.31*
Impulsivity	.28*	.26	.25	.22	.17	.24	.13	.23	-.16	.13	.21	.18
Instability Under Stress	.46*	.47*	*.34*	.26	.23	.16	.24	.42	-*.38*	.28	.26	.26
SIPP-SF *Means*	.50	.49	*.35*	.29	*.31*	.24	.21	.40	-.42	*.39*	*.32*	*.35*
Identity Plus	**.66***†	**.65***†	.43	*.35*	.45†	.28	.27	.44†	-.56	.53†	*.39*	.43†
Responsibility	.53*	.53*	.44	*.30*	.29	.26	.22	*.33*	-.40	*.31*	*.31*	*.33*
Social Concordance	.46	.45	*.34*	.28	.26	.19	.25	.54*	-.37	*.31*	*.34*	.40
Relations	*.33*	.29	.18	.22	.21	.23	.09	.27	-*.32*	.41*	.23	.24
WHOQOL-BREF *Means*	**-.62**	-.58	-.42	-*.39*	-*.37*	-.28	-.25	-.40	.59	-.44	-*.39*	-.40
Health	**-.64**	**-.60**	-*.38*	-*.37*	-.42	-.26	-.25	-.42	**.66***†	-.45	-*.35*	-*.38*
Environment	**-.60***	-.56	-.46†	-.40†	-*.31*	-*.30*†	-.24	-*.38*	.52	-.42	-.43†	-.42†
PWB *Means*	-.40	-*.39*	-.21	-.18	-.22	-.17	-.18	-.28	.51	-*.37*	-.22	-.23
Autonomy	-.22	-.23	-.11	-.07	-.08	-.07	-.18	-.15	*.30*	-*.34**	-.07	-.16
Self-Actualization	-*.35*	-*.33*	-.18	-.16	-.20	-.17	-.14	-.27	.54*	-.27	-.26	-.17
Positive Relations	-.59	-.57	-*.33*	-*.31*	-*.36*	-.26	-.21	-.40	**.64***	-.50	-*.33*	-*.35*

Table A20 (cont.)

Notes. *N*=429. IDAS = Inventory of Depression and Anxiety Symptoms; GD = General Depression; Dys = Dysphoria; Lass = Lassitute; Insom = Insomnia; Suici = Suicidality; AppL = Appetite Loss; AppG = Appetite Gain; ITemp = Ill Temper; WBeing = Well Being; SAnx = Social Anxiety; Pan = Panic; TIntr = Traumatic Intrusion; WHODAS-II = World Health Organization Disability Assessment Schedule II; MDPF = Measure of Disordered Personality Functioning; SFQ = Social Functioning Questionnaire; SIPP-SF = Severity Indices of Personality Problems – Short Form; WHOQOL-BREF = World Health Organization Quality of Life - Brief Version; PWB = Scales of Psychological Well-Being. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A21

Correlations among PANAS and Original Psychosocial Functioning Measures in Study 1

Measure	Positive Affect	Negative Affect	R^2
WHODAS-II *Means*	-.24	*.30*	.13
Cognitive & Interpersonal	-.29	.41*	.21
Basic Functioning	-.22*	.17	.06
Daily Tasks	-.14	.25*	.07
Difficulties due to Health	*-.31*	*.35**	.18
MDPF *Means*	*-.36*	*.36*	.25
Externalizing Dysfunction	*-.35**	.14	.13
Internalizing Dysfunction	-.53*	.53*†	.46
Impulsivity	-.22	.25*	.09
Instability	*-.31*	.49*	.30
SIPP-SF *Means*	*-.37*	.40	.25
Identity Plus	-.49*	.49*	.39
Responsibility	*-.38*	.46*	.29
Social Concordance	*-.30*	.42*	.22
Relations	*-.31**	.20	.11
WHOQOL-BREF *Means*	.51	-.41	.36
Health	.56*†	-.42	.41
Environment	.45*	-.41	.30
PWB *Means*	.43	*-.31*	.24
Autonomy	.29*	-.25	.12
Self-Actualization	.43*	-.26	.22
Positive Relations	.54*	-.43	.39

Notes. *N*=429. R^2 = Overall variance of BFI scales predicting psychosocial functioning (sub)scales; PANAS = Positive and Negative Affect Schedule; Big Five Inventory; WHODAS-II = World Health Organization Disability Assessment Schedule II; MDPF = Measure of Disordered Personality Functioning; SIPP-SF = Severity Indices of Personality Problems – Short Form; WHOQOL-BREF = World Health Organization Quality of Life - Brief Version; PWB = Scales of Psychological Well-Being. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Higher correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A22

First Ten Eigenvalues of a Principal Factors Analysis of the Original Psychosocial Functioning Measures in Study 1

	Eigenvalue	Difference	Proportion	Cumulative
1.	14.30	12.10	.67	.67
2.	2.24	.46	.11	.78
3.	1.78	.53	.08	.86
4.	1.25	.43	.06	.92
5.	.82	.12	.04	.96
6.	.70	.18	.03	.99
7.	.52	.15	.02	1.02
8.	.37	.11	.02	1.03
9.	.26	.06	.01	1.05
10.	.20	.01	.01	1.06

Table A23

Varimax-Rotated Factor Loadings for the Four-Factor Solution of the Original Psychosocial Functioning Measures in Study 1

Scales	Factor1	Factor2	Factor3	Factor4
PWB Self-Acceptance	**.82**	-.14	-.17	-.28
WHOQOL-BREF Psychological	**.74**	-.37	-.05	-.20
WHOQOL-BREF Social	**.64**	-.25	.26	-.04
PWB Positive Relations	**.61**	-.19	**-.53**	-.05
PWB Environmental Mastery	**.58**	**-.40**	-.16	**-.40**
WHOQOL-BREF General	**.54**	**-.48**	-.03	-.09
PWB Purpose in Life	**.52**	-.14	-.11	**-.49**
PWB Autonomy	**.45**	.00	-.07	-.29
PWB Personal Growth	**.45**	-.01	-.32	-.34
MDPF Ineffectiveness	**-.53**	.21	.14	**.43**
Social Adjustment Scale	**-.54**	**.41**	.22	.19
SIPP-SF [Poor] Relations	**-.56**	.24	**.51**	.06
MDPF Self-Defeating	**-.58**	.19	.27	**.41**
Social Functioning Questionnaire	**-.60**	**.44**	.30	.12
MDPF Pessimism	**-.62**	.07	.22	.33
SIPP-SF [Poor Self-] Identity	**-.68**	.32	.24	.33
Satisfaction with Life Scale	**-.75**	.18	.05	.11
WHODAS-II Getting Around	-.02	**.64**	.07	.10
WHODAS-II Participation	-.36	**.61**	.03	.02
WHODAS-II Self-Care	.05	**.59**	.11	.18
WHODAS-II Getting Along	-.32	**.56**	.34	.01
WHODAS-II Life Activities	-.16	**.55**	.07	.07
WHODAS-II Understand/Communicate	-.26	**.50**	.15	.39
WHOQOL-BREF Environment	**.42**	**-.51**	-.14	-.19
WHOQOL-BREF Physical	.37	**-.64**	-.08	-.15
MDPF Uncaring to Others	-.21	.04	**.77**	.05
MDPF Disagreeableness	-.08	.25	**.74**	.24
MDPF Non-empathic	-.08	.00	**.70**	.13
SIPP-SF [Lack] Social Concordance	-.19	.31	**.67**	.32
MDPF Inflexibility	-.15	.14	**.60**	.24
MDPF Impulsivity	-.07	.14	.12	**.60**
SIPP-SF (Ir)Responsibility	-.34	.33	.26	**.58**
SIPP-SF [Lack] Self-Control	-.29	.39	.33	**.56**
MDPF Lack Self Direction	**-.49**	.19	.23	**.53**
MDPF Failure to Learn from Exper.	-.28	.01	.36	**.50**

Table A23 (cont.)

% of common variance accounted for	35.6	21.0	19.3	16.0

Notes. *N= 429*. *Factor 1* = Positive Functioning; *Factor 2* = Poor Basic Functioning; *Factor 3* = Poor Interpersonal / Social Relationships; *Factor 4* = Low Self-Mastery; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life-Brief; Satisfaction with Life Scale; *PWB* = Scales of Psychological Well-Being. Loadings > |.40| bolded.

Table A24

First Ten Eigenvalues for a Principal Factors Analysis of the Revised Psychosocial Functioning Measures in Study 1

	Eigenvalue	Difference	Proportion	Cumulative
1.	8.08	7.09	.78	.78
2.	.99	.10	.10	.87
3.	.89	.34	.09	.96
4.	.55	.18	.05	1.01
5.	.37	.05	.03	1.05
6.	.31	.12	.02	1.08
7.	.19	.10	.01	1.10
8.	.08	.07	.00	1.10
9.	.01	.03	.00	1.10
10.	-.02	.02	.00	1.10
11.	-.03	.02	.00	1.10
12.	-.06	.01	-.01	1.08

Table A25

Varimax-Rotated Factor Loadings for the Four-Factor Solution of the Revised Psychosocial Functioning Measures in Study 1

Scales	Factor1	Factor2	Factor3
SIPP Identity Plus	**.70**	**.46**	.26
MDPF Internalizing Dysfunction	**.66**	**.47**	.19
Social Functioning Questionnaire	**.62**	.35	.36
Social Adjustment Scale	**.59**	.32	.33
SIPP Relations	**.42**	**.41**	.12
PWB Autonomy	**-.38**	-.20	-.01
Satisfaction with Life Scale	**-.75**	-.06	-.18
WHOQOL-BREF Health	**-.80**	-.11	**-.41**
PWB Positive Relations	**-.80**	-.38	-.19
SIPP [Low] Social Concordance	.24	**.68**	.32
MDPF Externalizing Dysfunction	.16	**.59**	.15
SIPP [Ir]Responsibility	.38	**.59**	.31
MDPF Impulsivity	.12	**.53**	.09
PWB Actualization	**-.41**	**-.43**	-.14
WHODAS-II Basic Functioning	-.01	.15	**.63**
WHODAS-II Cognitive & Interpersonal	.21	.35	**.62**
WHODAS-II Difficulty due to Health	.33	.03	**.52**
WHODAS-II Daily Tasks	.19	.13	**.51**
WHOQOL-BREF Environment	**-.45**	-.30	**-.52**
% of common variance accounted for	44.7	28.0	23.3

Notes. N= 429. Factor 1 = Poor General Functioning; *Factor 2* = Poor Personality Functioning; *Factor 3* =Poor Basic Functioning; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life-Brief; Satisfaction with Life Scale; *PWB* = Scales of Psychological Well-Being. Loadings > |.40| bolded.

Table A26

First Twelve Eigenvalues for a Principal Factors Analysis of the Original Psychosocial Functioning Measures Plus the BFI in Study 1

	Eigenvalue	Difference	Proportion	Cumulative
1.	15.12	12.56	.63	.63
2.	2.56	.68	.11	.73
3.	1.88	.18	.08	.81
4.	1.70	.54	.07	.88
5.	1.16	.31	.04	.93
6.	.85	.22	.04	.96
7.	.64	.13	.03	.99
8.	.51	.15	.02	1.01
9.	.36	.10	.01	1.03
10.	.26	.01	.01	1.04
11.	.25	.05	.01	1.04
12.	.20	.02	.01	1.06

Table A27

Varimax-Rotated Factor Loadings for a Four-Factor Solution of Original Psychosocial Functioning Plus the BFI in Study 1

Scales	Factor1	Factor2	Factor3	Factor4
SIPP Identity	**.71**	.23	.33	.27
MDPF Pessimism	**.67**	.22	.08	.23
MDPF Self-Defeating	**.62**	.27	.19	.35
Social Functioning Questionnaire	**.58**	.26	**.45**	.15
MDPF Ineffectiveness	**.58**	.14	.21	.35
SIPP-SF [Poor] Relations	**.56**	**.47**	.25	.08
MDPF Lack Self Direction	**.54**	.22	.17	**.48**
Social Adjustment Scale	**.53**	.20	**.42**	.21
BFI Neuroticism	**.47**	.15	.21	.05
BFI Extraversion	**-.46**	-.29	-.03	.20
PWB Personal Growth	**-.50**	-.30	-.01	-.25
PWB Autonomy	**-.51**	-.03	.01	-.23
WHOQOL-BREF General	**-.52**	-.03	**-.50**	-.07
PWB Purpose in Life	**-.54**	-.09	-.13	**-.48**
PWB Environmental Mastery	**-.61**	-.15	**-.40**	-.36
WHOQOL-BREF Social	**-.61**	-.20	-.28	.01
PWB Positive Relations	**-.61**	**-.48**	-.20	-.06
Satisfaction with Life Scale	**-.72**	-.04	-.21	-.10
WHOQOL-BREF Psychological	**-.73**	-.05	-.39	-.16
PWB Self-Acceptance	**-.84**	-.15	-.16	-.22
MDPF Disagreeableness	.12	**.77**	.23	.20
MDPF Uncaring to Others	.23	**.76**	.03	.04
MDPF Non-empathic	.11	**.69**	-.01	.13
SIPP-SF [Lack] Social Concordance	.22	**.69**	.30	.28
MDPF Inflexibility	.21	**.64**	.13	.12
BFI Agreeableness	-.06	**-.71**	-.13	-.07
WHODAS-II Getting Around	.03	.08	**.63**	.08
WHODAS-II Participation	.35	.04	**.63**	-.02
WHODAS-II Self-Care	-.05	.11	**.57**	.22
WHODAS-II Getting Along	.32	.30	**.56**	.03
WHODAS-II Life Activities	.14	.05	**.54**	.14
WHODAS-II Understand/Communicate	.28	.14	**.48**	**.42**
WHOQOL-BREF Environment	**-.41**	-.13	**-.52**	-.18
WHOQOL-BREF Physical	-.36	-.10	**-.64**	-.13
MDPF Impulsivity	.06	.13	.10	**.69**
SIPP-SF (Ir)Responsibility	.35	.24	.31	**.67**
SIPP-SF [Lack] Self-Control	.34	.37	.38	**.50**

Table A27 (cont.)

Scales	Factor1	Factor2	Factor3	Factor4
MDPF Failure to Learn from Exper.	.34	.35	-.01	**.44**
BFI Conscientiousness	-.16	-.07	-.20	**-.66**
% of common variance accounted for	35.1	19.2	19.0	14.7

Notes. *N= 429*. *Factor 1* = Poor General Functioning; *Factor 2* = Poor Personal and Social Relationships; *Factor 3* = Poor Basic Functioning; *Factor 4* = Low Self-Mastery; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life-Brief; Satisfaction with Life Scale; *PWB* = Scales of Psychological Well-Being. Loadings > |.40| and BFI scale names bolded.

Table A28

First Twelve Eigenvalues for a Factor Analysis of the Revised Psychosocial Functioning Measures Plus the BFI in Study 1

	Eigenvalue	Difference	Proportion	Cumulative
1.	8.33	6.99	.68	.68
2.	1.35	.13	.11	.79
3.	1.22	.27	.10	.89
4.	.95	.35	.08	.97
5.	.60	.24	.05	1.02
6.	.35	.05	.03	1.04
7.	.30	.08	.02	1.07
8.	.22	.10	.02	1.09
9.	.12	.02	.01	1.10
10.	.10	.08	.01	1.11
11.	.02	.03	.00	1.11
12.	-.01	.01	.00	1.11

Table A29

Varimax-Rotated Factor Loadings for the Four-Factor Solution of the Revised Psychosocial Functioning Plus the BFI in Study 1

Scales	Factor1	Factor2	Factor3	Factor4
SIPP Identity Plus	**.71**	.31	.32	.27
MDPF Internalizing Dysfunction	**.67**	.21	**.44**	.19
Social Functioning Questionnaire	**.61**	.39	.23	.23
BFI Neuroticism	**.48**	.17	.00	.21
SIPP Relations	**.47**	.09	.14	.41
PWB Autonomy	**-.43**	-.02	-.26	.08
BFI Extraversion	**-.51**	.04	.07	-.21
Satisfaction with Life Scale	**-.69**	-.23	-.15	.00
WHOQOL-BREF Health	**-.75**	-.46	-.12	-.08
PWB Positive Relations	**-.82**	-.24	-.21	-.28
WHODAS-II Basic Functioning	.00	**.61**	.09	.12
WHODAS-II Cognitive & Interpersonal	.21	**.61**	.28	.18
WHODAS-II Difficulty due to Health	.28	**.56**	.01	.05
WHODAS-II Daily Tasks	.14	**.51**	.17	.05
WHOQOL-BREF Environment	-.40	**-.53**	-.31	-.15
SIPP [Ir]Responsibility	.30	.32	**.72**	.19
MDPF Impulsivity	.05	.08	**.66**	.17
PWB Actualization	**-.42**	-.16	**-.42**	-.12
BFI Conscientiousness	-.12	-.19	**-.70**	-.06
MDPF Externalizing Dysfunction	.20	.12	.17	**.72**
SIPP [low] Social Concordance	.25	.33	.32	**.64**
BFI Agreeableness	-.11	-.09	-.06	**-.76**
% of common variance accounted for	37.8	20.9	20.3	17.8

Notes. N= 429. Factor 1 = Poor General Functioning; *Factor 2* = Poor Basic Functioning; *Factor 3* = Low Self-Mastery; *Factor 4* = Poor Interpersonal/Social Functioning; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life-Brief; Satisfaction with Life Scale; *PWB* = Scales of Psychological Well-Being. Loadings > |.40| bolded.

Table A30

Correlations of Psychosocial Functioning Factor Scores (Four-Factor Solution) Using the Original Psychosocial Functioning with the BFI, IDAS, and PANAS in Study 1

	Positive Functioning	Poor Basic Functioning	Poor Interpersonal/ Social Relationships	Low Self-Mastery
BFI (without Openness)				
Neuroticism	-.42*†	.22	.11	.22
Extraversion	.43*†	-.05	*-.30*	.13
Agreeableness	.07	-.15	**-.63***†	-.14
Conscientiousness	.19	-.25†	-.09	-.53*†
IDAS				
General Depression	-.51	.54*†	.07	*.30*
Dysphoria	-.49	.53*†	.05	*.32*†
Lassitude	-.25	.48*	-.01	.28
Insomnia	-.29	.47*	.01	.21
Suicidality	*-.34**	*.34**	.02	.15
Appetite Loss	-.19	*.32**	.02	.15
Appetite Gain	-.13	*.30**	.06	.18
Ill Temper	-.28	.40*	.19†	.24
Well-Being	**.65***†	-.21	-.17	-.26
Anxiety	-.43*	*.37*	.17	.10
Panic	-.22	.47*	.08	.19
Traumatic Intrusion	-.24	.45*	.11	.16
PANAS				
Positive Affect	.52*†	-.18	-.22†	-.25
Negative Affect	*-.34*	*.37*†	.06	.40*†

Notes. *N*= 181. *BFI* = Big Five Inventory; *IDAS* = Inventory of Depression and Anxiety Symptoms; *PANAS* = Positive and Negative Affect Schedule. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|) among BFI/IDAS/PANAS, respectively. Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A31

Correlations of Psychosocial Functioning Factor Scores (Three-Factor Solution) using the Revised Psychosocial Functioning Measures with the BFI, IDAS, and PANAS in Study 1

	Poor General Functioning	Poor Personality Functioning	Poor Basic Functioning
BFI (without Openness)			
Neuroticism	.47*†	.19	.17
Extraversion	-.43*	-.14	-.03
Agreeableness	-.13	-.49*†	-.14
Conscientiousness	-.22	-.46*	-.26†
IDAS			
General Depression	.58*	*.30*	.46†
Dysphoria	.55*	*.30*	.45†
Lassitude	*.31*	.24	*.38**
Insomnia	*.36**	.21	*.37**
Suicidality	*.37**	.14	*.32*
Appetite Loss	.23	.17	.25*
Appetite Gain	.17	.17	.27*
Ill Temper	*.33*	*.33*†	*.36**
Well-Being	**-.65***†	-.26	-.25
Anxiety	.44*	.25	*.33*
Panic	.26	.23	.42*
Traumatic Intrusion	.29	.24	*.38**
PANAS			
Positive Affect	-.52*†	-.27	-.23
Negative Affect	.40*	*.32*†	*.33*†

Notes. *N*= 181. *BFI* = Big Five Inventory; *IDAS* = Inventory of Depression and Anxiety Symptoms; *PANAS* = Positive and Negative Affect Schedule. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|) among BFI/IDAS/PANAS, respectively. Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A32

Correlations of Psychosocial Functioning-Plus-BFI Factor Scores (Four-Factor Solution) Using the Original Psychosocial Functioning Measures with the IDAS and PANAS in Study 1

	Poor General Functioning	Poor Interpersonal/ Social Relationships	Poor Basic Functioning	Low Self-Mastery
IDAS				
General Depression	.51	.08	.55*†	.27
Dysphoria	.49	.06	.54*†	.29†
Lassitude	.24	.01	.48*	.29†
Insomnia	.27	.03	.47*	.22
Suicidality	*.33*	.02	*.34**	.16
Appetite Loss	.17	.03	*.32**	.17
Appetite Gain	.15	.06	*.30**	.14
Ill Temper	.29	.21†	.41*	.19
Well-Being	**-.67***†	-.16	-.22	-.18
Anxiety	.45*	.15	*.37*	.06
Panic	.21	.09	.47*	.18
Traumatic Intrusion	.24	.11	.46*	.15
PANAS				
Positive Affect	-.55*†	-.20†	-.18	-.20
Negative Affect	*.37**	.08	*.37*†*	*.33*†

Notes. N= 181. *IDAS* = Inventory of Depression and Anxiety Symptoms; *PANAS* = Positive and Negative Affect Schedule. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|) among IDAS/PANAS, respectively. Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A33

Correlations of Psychosocial Functioning-Plus-BFI Factor Scores (Four-Factor Solution) Using the Revised Psychosocial Functioning Measures with the IDAS and PANAS in Study 1

	Poor General Functioning	Low Basic Functioning	Poor Self Mastery	Poor Interpersonal / Social Relationships
IDAS				
General Depression	.54*	.49†	*.30*†	.13
Dysphoria	.52*	.49†	*.30*†	.10
Lassitude	.27	.40*	*.30*†	.08
Insomnia	*.32*	*.34**	.24	.09
Suicidality	*.34**	*.34**	.16	.05
Appetite Loss	.20	.26*	.19	.07
Appetite Gain	.17	.28*	.13	.08
Ill Temper	*.31*	*.39**	.17	.28†
Well-Being	**-.64*** †	-.28	-.21	-.13
Anxiety	.48*	*.33*	.13	.14
Panic	.24	.44*	.17	.14
Traumatic Intrusion	.27	.41*	.15	.17
PANAS				
Positive Affect	-.52* †	-.23	-.25	-.15†
Negative Affect	*.38**	*.36*†	*.30*†	.13

Notes. N= 181. *IDAS* = Inventory of Depression and Anxiety Symptoms; *PANAS* = Positive and Negative Affect Schedule. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|) among IDAS/PANAS, respectively. Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table A34

Demographic Data for the Psychiatric Patient Sample

Variable	Percent
Female	75.3
Race/Ethnicity	
Caucasian	81.2
African-American	8.8
Other	10.0
Income	
Less than $20,000	59.4
$20,001 ~ 30,000	13.3
Greater than $30,001	27.3
Employment	
Full-time	28.1
Part-time	20.8
Unemployed	30.9
Homemaker	5.6
Student	11.2
Retired	3.4
Education	
Less than High School Education	.6
High School Graduate	15.5
Some College Education	41.7
College Graduate	21.1
Some Post-Graduate Education	21.1
Marital Status	
Single	41.7
Dating	11.7
Married / Cohabiting	24.4
Separated/Divorced/Widowed	22.2
Physical Problem Dx	58.0

Note. N = 181.

Table A35

Descriptive Statistics for Measures in Study 2

Measure[a] (# items)	Mean	SD	Range	Alpha	AIC
WHODAS-II					
Cognitive & Interpersonal (5)	4.71	3.85	0-17	.82	.48
Basic Functioning (5)	2.89	3.46	0-16	.83	.49
Daily Tasks (2)	2.17	2.24	0-8	.93	.87
Difficulties due to Health (5)	5.31	3.19	0-14	.80	.44
Social Functioning Questionnaire (8)	18.22	4.45	9-30	.74	.26
MDPF					
Externalizing Dysfunction (13)	10.47	5.58	0-32	.88	.36
Internalizing Dysfunction (11)	15.45	6.69	0-32	.89	.42
Impulsivity (3)	3.43	2.14	0-9	.85	.65
Instability Under Stress (3)	4.72	1.96	0-9	.76	.51
SIPP-SF					
Identity Plus (17)	38.00	11.96	17-63	.93	.44
Responsibility (10)	21.33	7.11	10-38	.88	.42
Social Concordance (14)	24.77	7.55	14-47	.87	.32
Relations (6)	13.13	4.04	6-24	.77	.36
Satisfaction With Life Scale (5)	24.36	7.78	6-35	.87	.57
PWB					
Autonomy (6)	24.3	5.83	9-36	.71	.29
Actualization (10)	42.3	8.90	17-60	.75	.23
Positive Relations (12)	40.4	13.38	15-69	.88	.38
WHOQOL-BREF					
Health (11)	33.5	8.13	14-52	.85	.34
Environment (12)	40.5	8.37	21-59	.84	.30
LIFE-RIFT (Interview)				kappa = .94	
Work	2.62	1.11	0-5	--	--
Relationship	3.34	1.12	1-5	--	--
Leisure	2.17	1.09	1-5	--	--
Satisfaction	2.83	0.97	1-5	.--	.--
Big Five Inventory					
Neuroticism (8)	27.9	6.75	8-40	.81	.35
Extraversion (8)	24.4	6.89	9-38	.79	.32
Agreeableness (9)	32.5	6.28	15-45	.75	.25
Conscientiousness (9)	30.2	7.08	13-44	.79	.29
Openness (10)	38.8	7.47	15-50	.82	.31
Inventory of Depression and Anxiety					
General Depression (20)	50.27	15.74	21-91	.91	.34
Dysphoria (10)	25.08	9.24	10-49	.89	.45

Table A35 (cont.)

Measure[a] (# items)	Mean	SD	Range	Alpha	AIC
Lassitude (6)	15.14	5.36	6-28	.76	.35
Insomnia (6)	15.04	5.23	6-29	.78	.37
Suicidality (6)	9.07	4.39	5-29	.86	.51
Appetite Loss (3)	5.78	3.11	3-15	.89	.73
Appetite Gain (3)	6.51	3.10	2-15	.80	.57
Ill Temper (5)	8.08	3.68	5-22	.80	.44
Well-Being (8)	19.65	7.80	8-40	.91	.56
Social Anxiety (5)	9.57	4.86	5-25	.81	.46
Panic (8)	13.49	5.93	8-37	.83	.38
Traumatic Intrusion (4)	7.91	3.85	4-20	.80	.50
SCID-II Personality Questionnaire					
Avoidant (7)	3.39	2.29	0-7	.79	.35
Dependent (8)	1.94	1.65	0-7	.56	.14
Obsessive-Compulsive (9)	4.13	1.85	0-9	.49	.10
Passive-Aggressive (8)	2.23	1.93	0-8	.68	.21
Depressive (8)	3.60	2.40	0-8	.79	.32
Paranoid (8)	2.70	2.34	0-8	.78	.31
Schizotypal (11)	2.91	2.25	0-11	.71	.18
Schizoid (6)	1.97	1.54	0-6	.56	.18
Histrionic (7)	1.50	1.68	0-7	.68	.23
Narcissistic (17)	3.80	3.44	0-16	.81	.20
Borderline (15)	5.34	3.83	0-15	.84	.26
Antisocial (15)	1.43	2.49	0-13	.86	.29
SNAP-2[b]					
Negative Temperament (28)	64.4	11.8	38.3 - 82.8	.91	.27
Mistrust (19)	62.6	15.7	38.8 - 94.9	.89	.30
Manipulativeness (20)	57.7	14.4	37.5 - 106.3	.80	.17
Aggression (20)	69.8	23.1	40.6 - 143.4	.86	.23
Self - Harm (16)	85.9	28.3	42.7 - 142.7	.87	.29
Eccentric Perception (15)	53.5	12.5	38.1 - 88.1	.83	.25
Dependency (18)	72.0	24.9	37.1 - 140.3	.81	.19
Positive Temperament (27)	44.3	12.9	16.6 - 68.4	.90	.25
Exhibitionism (16)	63.4	18.6	31.9 - 104.9	.82	.22
Entitlement (16)	52.6	15.9	26.8 - 91.5	.80	.20
Detachment (18)	71.8	23.3	36.6 - 119.5	.89	.31
Disinhibition (35)	78.1	11.7	58.6 - 113.8	.84	.13
Impulsivity (19)	73.2	24.2	35.9 - 135.9	.80	.17
Propriety (20)	52.8	10.2	31.3 - 70.4	.80	.14
Workaholism (18)	54.3	10.2	31.3 - 70.4	.76	.15
IPDS Total	3.84	2.94	0 – 11	kappa=1.00	

Table A35 (cont.)

Notes. [a] =For all measures, higher scores indicates lower functioning or more severe psychopathology, with the exception of quality of life/satisfaction measures (i.e., Satisfaction with Life Scale, PWB, and WHOQOL-BREF) in which higher scores indicates more satisfaction and better quality of life; [b]*T*-scores; *N*=181. *SFQ* = Social Functioning Questionnaire; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life - Brief Version; *PWB* = Scales of Psychological Well-Being; *IPDS* = Iowa Personality Disorders Screen.

Table A36

Correlations among Revised Daily Functioning Measures in Study 2

Measure	1	2	3	4	5	6	7	8
1. WHODAS-II Cognitive/Interpersonal								
2. WHODAS-II Basic Functioning	.53							
3. WHODAS-II Daily Tasks	.57	.51						
4. WHODAS-II Health Interference	.53	.45	.44					
5. Social Functioning Questionnaire	.57	*.32*	.49	.48				
6. LIFE-RIFT Work	.29	.24	.51	.26	*.31*			
7. LIFE-RIFT Relationship	.16	.14	.18	.27	*.37*	.17		
8. LIFE-RIFT Leisure	.28	.17	.20	.09	.41	.19	*.30*	
9. LIFE-RIFT Satisfaction	.40	.15	.47	*.31*	.57	*.36*	*.38*	.41

Notes N=181. *SFQ* = Social Functioning Questionnaire; *WHODAS -II* = World Health Organization Disability Assessment Schedule II; *LIFE-RIFT* = Longitudinal Interval Follow-up Evaluation – Range of Impaired Functioning Evaluation Tool. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A37

Correlations among Revised Personality Functioning Measures in Study 2

Measure	1	2	3	4	5	6	7
1. MDPF Externalizing Dysfunction							
2. MDPF Internalizing Dysfunction	.41						
3. MDPF Instability	*.30*	.53					
4. MDPF Impulsivity	*.38*	.51	*.34*				
5. SIPP-SF Identity	*.39*	**.78**	.44	*.36*			
6. SIPP-SF Responsibility	.43	**.68**	.41	.55	**.61**		
7. SIPP-SF Social Concordance	.50	.55	.50	.50	.57	**.63**	
8. SIPP-SF Relations	*.39*	.47	.22	.28	.55	*.37*	*.34*

Notes N=181. *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A38

Correlations among Revised Quality of Life / Satisfaction Measures in Study 2

Measure	1	2	3	4	5
1. Satisfaction with Life					
2. WHOQOL-BREF Health	**.72**				
3. WHOQOL-BREF Environment	**.63**	**.69**			
4. PWB Autonomy	.21	.22	.20		
5. PWB Actualization	.43	.54	.43	.26	
6. PWB Positive Relations	**.67**	**.75**	.51	.42	.59

Notes. *N*=181. *WHOQOL-BREF* = World Health Organization Quality of Life - Brief Version; *PWB* = Scales of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A39

Correlations between Revised Daily Functioning and Personality Functioning Measures in Study 2

	WHODAS-II					LIFE-RIFT			
Measure	Cog/Int	Basic	Daily	HlthIntfr	SFQ	Work	Relation	Leisure	Sat
MDPF Externalizing	*.32*	.07	.11	.14	*.36**	.04	.17	.27	.19
MDPF Internalizing	**.61**†	.22	.41†	.45	**.68***	.29	*.32*†	*.30*	.48†
MDPF Instability	*.39**	.07	.26	.20	*.38**	.15	.06	.19	.24
MDPF Impulsivity	*.38**	.22	.18	.20	.26	.02	.15	.13	.18
SIPP-SF Identity	**.60**†	.27	.40	.47†	**.73***†	.18	.26	.08	.09
SIPP-SF Responsibility	.57	*.31*†	.42†	.44	**.61***	*.30*	.20	.26	.26
SIPP-SF Social Concordance	.49*	.21	.29	*.37*	.49*	*.34*	.19	.24	*.30*
SIPP-SF Relations	.45	.13	.14	.19	*.35*	.51*†	.28	.40†	*.32*

Notes. *N*=181. *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *Cog/Int* = Cognitive/Interpersonal; *Basic* = Basic Functioning; *Daily* = Daily Functioning; *HlthIntfr* = Health Interference; *LIFE-RIFT* = Longitudinal Interval Follow-up Evaluation – Range of Impaired Functioning Evaluation Tool. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A40

Correlations between Revised Daily Functioning, Personality Functioning, and Quality of Life / Satisfaction Measures in Study 2

		WHOQOL-BREF		PWB		
Measure	SWLS	Health	Env	Aut	Act	PosRel
Daily Functioning						
WHODAS Cog/Int	-.45	-.55	-.58*	-.28	-.45	-.56
WHODAS Basic	-.27	*-.31*	-.45*	-.09	-.26	-.22
WHODAS Daily	-.41	-.46	-.52*	-.12	*-.31*	*-.39*
WHODAS HlthIntfr	-.43	-.49	-.54*	-.17	-.23	-.43
SFQ	**-.65†**	**-.73†**	**-.63†**	-.26	-.48	**-.75***
LIFE-RIFT Work	-.23	*-.37**	*-.30*	-.05	-.18	-.26
LIFE-RIFT Relation	*-.31*	*-.38**	*-.38**	-.05	-.21	-.29
LIFE-RIFT Leisure	*-.36*	-.42	-.44*	-.26	*-.31*	*-.37*
LIFE-RIFT Satisfaction	-.54	-.57*	-.52	-.16	*-.35*	-.54
Personality Functioning						
MDPF External	-.20	-.25	-.28	-.09	-.45*	*-.35*
MDPF Internal	-.59	**-.68**	-.53	-.30	**-.63†**	**-.71***
MDPF Instability	-.22	*-.33*	-.19	*-.36†*	-.26	-.41*
MDPF Impulsive	-.24	-.25	*-.31*	-.19	-.40*	-.25
SIPP-SF Identity	**-.63**	**-.73†**	-.51	*-.36†*	**-.63†**	**-.82*†**
SIPP-SF Responsible	-.42	-.49	-.49	*-.33*	-.44	-.58*
SIPP-SF SoclCncrd	*-.34*	*-.39*	-.41	-.27	*-.36*	-.47*
SIPP-SF Relation	*-.33*	-.41	-.24	-.22	-.47	-.53*

Notes N=181. *WHOQOL-BREF Env* = WHO Quality of Life Brief Version Environment; *PWB* = Scale of Psychological Well-Being; *Aut* = Autonomy; *Act* = Actualization; *PosRel* = Positive Relations; *WHODAS* = WHO Disability Assessment Schedule-II; C*og/Int* = Cognitive/Interpersonal; *Basic* = Basic Functioning; *Daily* = Daily Functioning; *HlthIntfr* = Health Interference; *SFFQ* = Social Functioning Questionnaire; *LIFE-RIFT* = Longitudinal Interval Follow-up Evaluation – Range of Impaired Functioning Evaluation Tool; *MDPF* = Measure of Disordered Personality Functioning; *External* = Externalizing Dysfunction; *Internal* = Internalizing Dysfunction; *SIPP-SF* = Severity Indices of Personality Problem – Short Form; *SoclCncrd* = Social Concordance. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A41

Mean Correlations among Revised Psychosocial Functioning Measures in Study 1 and 2

Measure	1	2	3	4	5	6	7
1. SFQ[a]		.47	.44	.56	**-.65**	**-.68**	-.53
2. WHODAS-II	.40		.27	*.37*	-*.39*	-.49	-*.30*
3. MDPF	.40	.22		.48	-*.32*	-*.37*	-*.38*
4. SIPP-SF	.59	*.32*	.44		-.44	-.47	-.48
5. SWLS[a]	-.53	-.25	-*.33*	-.26		**.68**	.46
6. WHOQOL-BREF	-.59	-.41	-*.39*	-.49	**.61**		.47
7. PWB	-.50	-.23	-*.37*	-.45	.43	.43	

Notes. a = Original measures. Study 1 *N*=429; Study 2 *N* = 181. Study 1 correlations are presented in the lower triangle; Study 2 correlations are presented in the upper triangle. *SFQ* = Social Functioning Questionnaire; *WHODAS-II* = WHO Disability Assessment Schedule – II*; MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *SWLS* = Satisfaction with Life Scale; *PWB* = Scale of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Study 1 correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$. Study 2 correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A42

Correlations between BFI and Revised Psychosocial Functioning Measures in Study 2

Measure	N	E	A	C	O	R^2
WHODAS-II *Means*	*.34*	-.25	-.15	-.40	-.06	.25
Cognitive/Interpersonal	.48*	-.42	-*.32*	-.49*	-.12	.39
Basic Functioning	.15	-.16	-.08	-.31*	-.06	.11
Daily Tasks	*.36*	-.28	-.10	-.49*	-.04	.32
Health Interference	*.36**	-.14	-.10	-*.30*	.01	.17
Social Functioning Questionnaire	.58*	-*.31*	-*.35*	-.49	-.08	.43
MDPF *Means*	.46	-.24	-.45	-.42	-.16	.42
Externalizing Dysfunction	*.31*	-*.34*	**-.62*†**	-*.37*	-.29	.47
Internalizing Dysfunction	**.64***	-*.38*	-*.39*	-.55	-.13	.54
Instability	.58*	-.22	-*.36*	-.26	-.05	.36
Impulsivity	.25	-.02	-*.39*	-.48*	-.15	.30
SIPP-SF *Means*	.51	-*.35*	-.45	-.51	-.13	.51
Identity	**.67*†**	-.51	-*.36*	-.46	-.15	.57
Responsibility	.48	-.21	-.43	**-.75*†**	-.02	.63
Social Concordance	.49	-.09	-.57*	-.41	-.05	.43
Relations	*.37*	-.52*†	-.44	-*.32*	-.28	.42
WHOQOL-BREF *Means*	-.53	*.37*	.25	.46	.13	.40
Health	**-.61***	.43	.24	.43	.11	.46
Environment	-.43	*.30*	.25	.49*	.15	.33
Satisfaction with Life Scale	-.53*	.26	.26	.40	.07	.33
PWB *Means*	-.48	*.39*	.23	.41	.30	.42
Autonomy	-*.34**	.19	.04	*.31*	.25	.23
Actualization	-.41	.42	*.32*	.44	.48*†	.47
Positive Relations	**-.65***	.53	*.33*	.48	.14	.57
Overall Self-report Means	.47	.31	.32	.44	.14	.40
LIFE-RIFT *Means*	.24	-.25	-.13	-.24	-.09	.15
Work	.17	-.19	.03	-.24*	.07	.12
Relationship	.15	-.16	-.16	-.19*	-.08	.06
Leisure	.22	-*.30**	-.19†	-.23	-.23†	.15
Satisfaction	.42*†	-*.34*†	-.14	-*.31*†	-.12	.25

Notes. N=181. R^2 = Overall variance of BFI scales predicting psychosocial functioning (sub)scales; *BFI* = Big Five Inventory; *WHODAS- II* = World Health Organization Disability Assessment Schedule II; *LIFE-RIFT* = Longitudinal Interval Follow-up Evaluation – Range of Impaired Functioning Evaluation Tool; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life - Brief

Table A42 (cont.)

Version; ***PWB*** = Scales of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (±|.01|). †Highest correlation in column (±|.01|) among self-report measures/ LIFT-RIFT, respectively. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A43

Correlations between IDAS and Revised Psychosocial Functioning Measures in Study 2

Measure	GD	Dys	Lass	Insom	Suici	AppL	AppG	ITemp	WBeing	SAnx	Pan	TIntr
WHODAS-II *Means*	.49	.48	.42	.34	.35	.24	.11	.31	-.34	.42	.47	.40
Cognitive/Interpersonal	**.64***	**.65***	.44	.43	.48	.29	.19	.48	-.43	**.61**†	.59†	.51†
Basic Functioning	.35	.31	.32	.24	.24	.20	.09	.14	-.22	.32	.44*	.30
Daily Tasks	.48	.47	.52*	.33	.27	.14	.10	.29	-.40	.31	.30	.32
Health Interference	.49	.47	.39	.36	.38	.31	.06	.30	-.31	.42	.51*	.46
SFQ	**.69***	**.70***	.52	.44	.47	.32	.20	.40	-.53	.51	.45	.48
MDPF *Means*	.38	.40	.26	.24	.29	.15	.12	.38	-.31	.32	.32	.27
Externalizing Dysfunction	.15	.17	.03	.02	.19	.04	.00	.22	-.24	.22	.24*	.16
Internalizing Dysfunction	**.63**	**.66***	.50	.45	.45	.22	.19	.43	-.54	.50	.42	.44
Instability	.37	.43	.33	.21	.24	.12	.17	.51*	-.22	.38	.33	.22
Impulsivity	.29	.28	.14	.24	.25	.21	.10	.33*	-.22	.17	.29	.23
SIPP-SF *Means*	.50	.52	.34	.32	.39	.21	.13	.39	-.39	.43	.38	.40
Identity	**.69**	**.71***	.48	.41	.54†	.27	.12	.41	**-.61**	.54	.45	.49
Responsibility	.48	.51*	.42	.30	.34	.16	.23†	.37	-.33	.43	.37	.44
Social Concordance	.44	.44	.29	.30	.44	.23	.11	.54*†	-.24	.39	.41	.43
Relations	.35*	.35*	.13	.28	.21	.17	.04	.23	-.34	.35*	.27	.24
WHOQOL-BREF *Average*	**-.66**	**-.65**	-.53	-.44	-.47	-.26	-.11	-.33	**.65**	-.41	-.43	-.44
Health	**-.71***†	**-.71***†	-.56†	-.46†	-.50	-.24	-.12	-.38	**.70***†	-.47	-.43	-.44
Environment	**-.61***	-.58	-.49	-.42	-.43	-.28	-.09	-.28	**.60***	-.35	-.42	-.44
SWLS	-.59*	-.59*	-.44	-.41	-.43	-.25	-.04	-.30	.59*	-.37	-.35	-.42
PWB *Means*	-.46	-.49	-.38	-.27	-.35	-.14	-.10	-.27	.46	-.41	-.30	-.23
Autonomy	-.26	-.30	-.27	-.14	-.24	-.06	-.09	-.17	.22	-.34*	-.14	-.08
Actualization	-.44	-.44	-.35	-.29	-.37	-.16	-.14	-.27	.50*	-.34	-.38	-.22

Table A43 (cont.)

Measure	GD	Dys	Lass	Insom	Suici	AppL	AppG	ITemp	WBeing	SAnx	Pan	TIntr
Positive Relations	**-.64**	**-.68***	-.50	*-.37*	-.42	-.19	-.08	*-.37*	**.62**	-.53	*-.38*	*-.38*
Overall Self-report Means	.51	.52	*.38*	*.33*	*.37*	.20	.11	*.34*	.43	.40	*.38*	.36
LIFE-RIFT *Means*	.40	*.38*	*.30*	.25	.24	.15	.01	.23	-.40	.19	.20	.16
Work	*.36*	*.34*	.42†	.28	.11	-.03	.12†	.15	*-.36*	.10	.09	.12
Relationship	.27	.26	.19	.14	.17	.17	.02	.17	-.25	.08	.22	.18
Leisure	*.36*	*.34*	.16	.19	.27	.16	-.10	.20	*-.39*	.23	.23	.07
Satisfaction	.57*†	.55†	.40	*.37*†	.40†	.22†	.00	*.38*†	-.57*†	*.33*†	.26†	.25†

Notes. *N*=181. *IDAS* = Inventory of Depression and Anxiety Symptoms; *GD* = General Depression; *Dys* = Dysphoria; *Lass* = Lassitute; *Insom* = Insomnia; *Suici* = Suicidality; *AppL* = Appetite Loss; *AppG* = Appetite Gain; *ITemp* = Ill Temper; *WBeing* = Well Being; *SAnx* = Social Anxiety; *Pan* = Panic; *TIntr* = Traumatic Intrusion; *LIFE-RIFT* = Longitudinal Interval Follow-up Evaluation – Range of Impaired Functioning Evaluation Tool; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SFQ* = Social Functioning Questionnaire; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *SWLS* = Satisfaction with Life Scale; *WHOQOL-BREF* = World Health Organization Quality of Life - Brief Version; *PWB* = Scales of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|) among self-report measures/ LIFT-RIFT, respectively. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|). Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A44

Correlations between SCID-II-PQ and IPDS and Revised Psychosocial Functioning Measures in Study 2

	SCID-II-PQ												IPDS
Measure	PAR	SZD	STY	ASP	BPD	HIS	NAR	AVD	DPN	OC	PAG	DEP	Total
WHODAS-II *Means*	.28	.22	.29	.10	.43	.02	.16	.27	*.31*	.22	*.35*	*.32*	*.39*
Cognitive/Interpersonal	.44	*.32*	*.39*	.19	**.60***	-.03	.28	.43	.43†	.23	.48	.47	.58
Basic Functioning	.22	.25	*.33**	.10	*.31*	.07	.14	.14	.24	.21	.23	.16	*.30*
Daily Tasks	.21	.18	.14	-.02	*.38**	.02	.05	.22	.28	.19	*.31*	.29	*.32*
Health Interference	.23	.12	*.31*	.07	.42*	.03	.16	.29	.28	.24	*.37*	*.33*	*.35*
SFQ	.42	.17	*.39*	.11	.58*	.01	.23	.45	.41	.26	.52	.57*	.50
MDPF *Means*	*.37*	.21	.27	.13	.49	.04	.26	*.37*	*.30*	.18	.43	.45	.47
Externalizing Dysfunction	*.34*	*.36**	.24	.19	.29	-.05	.25	.29	.12	.11	*.34*	*.31*	*.35*
Internalizing Dysfunction	.44	.25	*.33*	.12	**.64**	-.05	.25	.52	.43†	.20	.59	**.67***	.57
Instability	*.37*	.02	.19	.03	.54*	.08	.22	.45	*.30*	.26	.40	.52	.52
Impulsivity	*.31*	.18	*.31*	.16	.44*	.20†	*.32*	.19	*.34*	.14	*.37*	*.30*	.41
SIPP-SF *Means*	.47	.28	*.37*	.20	.58	.04	.27	.49	.40	.27	.53	.58	.55
Identity	.50	.28	*.38*	.11	**.64**	-.07	.18	**.66**†	.40	*.30*	.53	**.77***†	**.66**†
Responsibility	.40	.22	.44†	.18	.59*	.16	*.36*	*.38*	.52	.28	.55	.52	.51
Social Concordance	.58†	.23	.42	*.36*†	**.66***†	.21†	.41†	*.34*	.44†	*.35*†	**.66***†	.52	.59
Relations	*.37*	*.38*†	.23	.14	.40	-.14	.14	.52*	.20	.14	*.33*	.44	.43
WHOQOL-BREF *Means*	-*.35*	-.22	-*.30*	-.10	-.50	.06	-.13	-*.39*	-*.32*	-.19	-.45	-.48	-.44
Health	-*.36*	-.18	-.26	-.04	-.53	.10	-.08	-.49	-*.30*	-.17	-.45	-.57*	-.48
Environment	-*.34*	-.25	-*.33*	-.16	-.47*	.01	-.18	-.27	-*.34*	-.20	-.44	-*.38*	-.40

Table A44 (cont.)

	SCID-II-PQ												IPDS
Measure	PAR	SZD	STY	ASP	BPD	HIS	NAR	AVD	DPN	OC	PAG	DEP	Total
SWLS	-.*30*	-.12	-.20	-.05	-.48	.06	-.14	-.*35*	-.26	-.17	-.44	-.51*	-.41
PWB *Means*	-.*34*	-.16	-.20	-.07	-.43	.04	-.16	-.53	-.*37*	-.18	-.42	-.55	-.49
Autonomy	-.23	.07	-.14	-.08	-.*33*	-.10	-.16	-.49*	-.42	-.14	-.*34*	-.40	-.47
Actualization	-.*33*	-.*35*	-.18	-.08	-.*39*	.11	-.14	-.44	-.*30*	-.15	-.40	-.51*	-.44
Positive Relations	-.45	-.19	-.27	-.05	-.56	.10	-.18	**-.64**	-.*38*	-.26	-.52	**-.69***	-.57
LIFE-RIFT *Means*	.14	.18	.13	.08	.28	-.08	.01	.20	.13	.12	.27	.23	.25
Work	-.11	.01	-.02	-.09	.14*	-.11	-.14*†	.09	.05	.02	.15*	.13	.14*
Relationship	.18	.27	.22†	.16	*.30**	-.03	.05	.08	.13	.06	*.30**	.17	.22
Leisure	.25†	*.31*†	.20	.20†	*.33**	-.06	.08	*.30*	.21†	.24†	.28	.24	*.32*†
Satisfaction	.23	.12	.10	.04	*.36*†	-.13†	.06	*.32*†	.14	.14	*.35*†	*.36*†	*.31*†

Notes N=181. *SCID-II PQ* = SCID-II Personality Questionnaire; *AVD* = Avoidant PD; *DPN* = Dependent PD; *OC* = Obsessive-Compulsive PD; *PAG* = Passive-Aggressive PD; *DEP* = Depressive PD; *PAR* = Paranoid PD; *STY* = Schizotypal PD; *SZD* = Schizoid PD; *HIS* = Histrionic PD; *NAR* = Narcissistic PD; *BPD* = Borderline PD; *ASP*= Antisocial PD; *LIFE-RIFT* = Longitudinal Interval Follow-up Evaluation – Range of Impaired Functioning Evaluation Tool; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SFQ* = Social Functioning Questionnaire; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *SWLS* = Satisfaction with Life Scale; *WHOQOL-BREF* = World Health Organization Quality of Life - Brief Version; *PWB* = Scales of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|) among self-report measures/ LIFT-RIFT, respectively. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A45

Correlations between SNAP-2 Trait Scales and Revised Psychosocial Functioning Measures in Study 2

Measure	NT	MIS	MAN	AGG	SH	EP	DEP	PT	EXH	ENT	DET	DIS	IMP	PRO	HW
WHODAS-II *Means*	.29	*.34*	.21	.24	.44*	*.30*	.13	-.29	-.19	-.05	.20	.12	.17	.04	.09
Cognitive/Interpersonal	.45	.51	.27	*.30*	.56*	*.37*	.21	-*.33*	-*.31*	-.13	*.36*	.20	.27	.00	.09
Basic Functioning	.12	.29*	.17	.17	.28	.27	.08	-.24	-.19	.05	.12	.08	.15	.12	.11
Daily Tasks	.25	.21	.23	.25	.46*	.26	.19	-*.39*	-.18	-.10	.18	.11	.15	-.01	.04
Health Interference	*.33*	*.33*	.15	.22	.44*	.29	.03	-.21	-.09	-.02	.14	.08	.12	.06	.12†
SFQ	.56	.45	*.32*	.29	**.62**	.26	.22	-.41	-.17	-.11	*.35*	.23	.29	-.02	.00
MDPF *Means*	.49	*.37*	*.35*	*.39*	.44	*.32*	.19	-.29	-.17	-.13	*.34*	*.35*	.40	-.10	-.02
Externalizing Dysfunction	.28	.28	*.34*	.44	.29	.19	.04	-*.36*	-.17	-.09	.46*	*.32*	.26	-.16	-.08
Internalizing Dysfunction	**.63**	.50	*.35*	*.33*	**.69***	*.37*	.26	-.48	-*.30*	-.25	.45	*.33*	.41	-.06	-.04
Instability	**.67*†**	.27	.26	.42	*.36*	.24	.29	-.19	-.17	-.12	.23	.18	.23	-.04	.00
Impulsivity	.29	.41	.45	*.36*	*.35*	.45†	.17	-.12	-.05	-.05	.19	.53†	**.64*†**	-.13	.03
SIPP-SF *Means*	.50	.51	.40	*.39*	.55	*.32*	.20	-*.34*	-.21	-.14	.43	.30	*.33*	-.05	.01
Identity	**.64**	.57†	*.32*	.28	**.75*†**	*.33*	.22	-.50	-*.35*†	-.29	.54	.20	.27	.01	.02
Responsibility	.48	.44	.54†	*.36*	.52	.46†	*.30*	-.29	-.09	-.05	.29	.51	.55	-.17†	-.02
Social Concordance	.52	.52	.46	**.65*†**	.49	*.38*	.18	-.14	-.03	.05	.27	*.33*	*.35*	-.09	.04
Relations	*.32*	.49	.24	.22	*.39*	.14	.08	-.41	-*.34*†	-.27	.58*†	.13	.12	.06	-.01
WHOQOL-BREF *Means*	-.46	-.46	-.26	-.29	**-.65**	-.26	-.24	.48	.21	.18	-*.31*	-.21	-.29	-.06	-.05
Health	-.55	-.47	-.23	-.27	**-.72***	-.19	-.25	.53	.25	.29	-*.36*	-.18	-.27	-.08	-.01
Environment	-*.36*	-.45	-.28	-*.31*	-.58*	-*.32*	-.22	.42	.16	.07	-.26	-.23	-*.30*	-.03	-.09
SWLS	-.44	-.43	-.20	-.25	**-.69***	-.08	-.19	.47	.14	.16	-.29	-.22	-.29	-.08	.08
PWB *Means*	-.44	-*.35*	-.27	-.15	-.52	-.15	-*.35*	.44	.29	.25	-*.33*	-.16	-.20	-.06	.06
Autonomy	-*.36*	-.18	-.26	-.03	-.32	-.07	-.56*†	.16	.18	.12	-.05	-.11	-.12	-.09	.02
Actualization	-*.34*	-*.36*	-.28	-.18	-.50	-.20	-.19	.57*†	*.35*†	*.32*†	-.43	-.19	-.27	-.05	.08

Table A45 (cont.)

Measure	NT	MIS	MAN	AGG	SH	EP	DEP	PT	EXH	ENT	DET	DIS	IMP	PRO	HW
Positive Relations	-.59	-.50	-.27	-.24	**-.68***	-.19	-.26	.53	*.34*†	.29	-.47	-.17	-.20	-.03	.08
LIFE-RIFT *Means*	.21	.25	.15	.16	*.39**	.09	.14	*-.36*	-.12	-.12	.22	.10	.11	.01	-.03
Work	.15	.00	.08	.04	.25	.05	.15	*-.34**	-.04	-.14	.05	.09	.13	-.11	-.09
Relationship	.16	*.37**†	.20†	.21	*.35*	.18†	.04	-.24	-.07	.00	.22	.05	.08	.04	.07
Leisure	.22	.29	.16	.15	*.33*	.04	.21†	*-.39**	-.18†	-.14	.27	.13†	.09	.07†	.01
Satisfaction	*.32*†	*.31*	.16	.25†	.58*†	.09	.16	-.45†	-.17	-.19†	*.30*†	.13†	.15†	.03	-.10†

Notes N=181. *SNAP-2* = Schedule for Adaptive and Nonadaptive Personality – 2; *NT* = Negative Temperament; *MIS* = Mistrust; *MAN* = Manipulativeness; *AGG*= Aggression; *SH* = Self-Harm; *EP* = Eccentric Perception; *DEP* = Dependency; *PT* = Positive Temperament; *EXH* = Exhibitionism; *ENT* = Entitlement; *DET* = Detachment; *DIS* = Disinhibition; *IMP*= Impulsivity; *PRO* = Propriety; *HW* = Workaholism; *LIFE-RIFT* = Longitudinal Interval Follow-up Evaluation – Range of Impaired Functioning Evaluation Tool; *WHODAS- II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SFQ* = Social Functioning Questionnaire; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *SWLS* = Satisfaction with Life Scale; *WHOQOL-BREF* = World Health Organization Quality of Life - Brief Version; *PWB* = Scales of Psychological Well-Being. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|) among self-report measures/ LIFT-RIFT, respectively. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A46

First Twelve Eigenvalues a Principal Factors Analysis of the Revised Psychosocial Functioning Measures in Study 2

	Eigenvalue	Difference	Proportion	Cumulative
1.	6.68	5.31	.70	.70
2.	1.37	.53	.14	.84
3.	.83	.30	.09	.93
4.	.53	.12	.06	.99
5.	.41	.05	.04	1.03
6.	.36	.06	.04	1.07
7.	.31	.11	.03	1.10
8.	.19	.11	.02	1.12
9.	.09	.04	.01	1.13
10.	.05	.04	.01	1.14
11.	.01	.07	.00	1.14
12.	-.06	.05	-.01	1.13

Table A47

Varimax-Rotated Factor Loadings for a Three-Factor Solution of the Revised Psychosocial Functioning Measures in Study 2

Scale	Factor1	Factor2	Factor3
SIPP-SF Social Concordance	**.67**	.18	.22
MDPF Internalizing Dysfunction	**.67**	**.43**	.31
MDPF Impulsivity	**.62**	.01	.17
MDPF Instability	**.59**	.08	.14
MDPF Externalizing Dysfunction	**.58**	.18	-.02
SIPP-SF Relations	**.49**	.39	.01
PWB Autonomy	**-.36**	-.18	-.07
PWB Actualization	**-.54**	**-.40**	-.16
LIFE-RIFT [low] Satisfaction	.18	**.64**	.29
Satisfaction with Life Scale	.25	**.62**	.35
LIFE-RIFT Leisure	.19	**.52**	.09
LIFE-RIFT Relationship	.11	**.44**	.14
PWB Positive Relations	**-.51**	**-.62**	-.24
WHODAS-II Daily Tasks	.12	.25	**.72**
WHODAS-II Basic Functioning	.12	.03	**.67**
WHODAS-II Cognitive/Interpersonal	.51	.21	**.61**
WHODAS-II Health Interference	.22	.20	**.60**
LIFE-RIFT Work	-.03	.28	**.43**
WHOQOL-BREF Environment	-.24	**-.51**	**-.57**
% of common variance accounted for	35.8	28.7	28.7

Notes. N= 181. *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life-Brief; Satisfaction with Life Scale; *PWB* = Scales of Psychological Well-Being; *Factor 1* = Poor Personality Functioning (i.e., Externalizing and Internalizing Dysfunction); *Factor 2* = Poor General Functioning (i.e., Low Satisfaction and Poor Interpersonal Functioning); *Factor 3* = Poor Basic Functioning. Loadings > |.40| bolded.

Table A48

First Twelve Eigenvalues of a Principal Factors Analysis of the Revised Psychosocial Functioning Measures Plus the BFI in Study 2

	Eigenvalue	Difference	Proportion	Cumulative
1.	8.08	6.37	.64	.64
2.	1.71	.63	.13	.77
3.	1.08	.27	.09	.86
4.	.81	.14	.06	.92
5.	.67	.21	.05	.98
6.	.46	.06	.04	1.01
7.	.41	.06	.03	1.04
8.	.34	.10	.03	1.07
9.	.25	.11	.02	1.09
10.	.14	.04	.01	1.10
11.	.09	.04	.01	1.11
12.	.06	.04	.00	1.11

Table A49

Varimax-Rotated Factor Loadings for the Three-Factor Solution of the Revised Psychosocial Functioning Measures Plus the BFI in Study 2

Items	Factor 1	Factor 2	Factor 3
SIPP-SF Social Concordance	**.72**	.16	.26
MDPF Impulsivity	**.65**	.00	.22
MDPF Externalizing Dysfunction	**.62**	.28	-.04
MDPF Internalizing Dysfunction	**.56**	**.50**	.39
MDPF Instability	**.53**	.24	.12
BFI Conscientiousness	**-.49**	-.22	**-.43**
BFI Agreeableness	**-.72**	-.18	.04
SIPP-SF Relations	.38	**.57**	.01
LIFE-RIFT [low] Satisfaction	.10	**.55**	**.42**
BFI Neuroticism	**.46**	**.47**	.27
LIFE-RIFT Leisure	.12	**.47**	.18
LIFE-RIFT Relationship	.10	**.30**	.24
PWB Autonomy	-.23	**-.29**	-.12
PWB Actualization	**-.41**	**-.50**	-.22
Satisfaction with Life Scale	-.19	**-.51**	-.48
BFI Extraversion	-.09	**-.67**	-.08
PWB Positive Relations	-.35	**-.72**	-.33
WHODAS-II Daily Tasks	.10	.20	**.74**
WHODAS-II Basic Functioning	.11	.00	**.63**
WHODAS-II Health Interference	.19	.14	**.63**
WHODAS-II Cognitive/Interpersonal	**.41**	.32	**.59**
LIFE-RIFT Work	-.08	.23	**.46**
WHOQOL-BREF Environment	-.23	-.37	**-.66**
% of common variance accounted for	29.5	28.3	28.2

Notes. *N*= 181. *BFI* = Big Five Inventory; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life-Brief; Satisfaction with Life Scale; *PWB* = Scales of Psychological Well-Being. Loadings > |.40| bolded.

Table A50

Varimax-Rotated Factor Loadings for a Four-Factor Solution of the Revised Psychosocial Functioning Measures Plus the BFI in Study 2

Items	Factor1	Factor2	Factor3	Factor4
WHODAS-II Daily Tasks	**.74**	.15	.01	.18
WHODAS-II Basic Functioning	**.64**	.03	.15	-.04
WHODAS-II Health Interference	**.62**	.08	.12	.22
WHODAS-II Cognitive/Interpersonal	**.59**	.26	.33	.32
LIFE-RIFT Work	**.46**	.19	-.11	.10
Satisfaction with Life Scale	**-.48**	**-.44**	-.11	-.31
WHOQOL-BREF Environment	**-.68**	-.37	-.22	-.12
SIPP-SF Relations	.03	**.59**	.37	.18
LIFE-RIFT [low] Satisfaction	**.42**	**.50**	.03	.25
LIFE-RIFT Leisure	.20	**.49**	.12	.08
LIFE-RIFT Relationship	.26	**.35**	.14	-.04
PWB Actualization	-.23	**-.48**	-.37	-.24
PWB Positive Relations	-.31	**-.59**	-.19	-.55
BFI Extraversion	-.09	**-.66**	-.05	-.19
MDPF Externalizing Dysfunction	-.01	.34	**.65**	.08
SIPP-SF Social Concordance	.25	.10	**.63**	.38
MDPF Impulsivity	.22	-.01	**.62**	.19
BFI Conscientiousness	**-.43**	-.20	**-.45**	-.22
BFI Agreeableness	.03	-.21	**-.73**	-.14
BFI Neuroticism	.23	.29	.25	**.66**
MDPF Instability	.08	.04	.31	**.66**
MDPF Internalizing Dysfunction	.38	.38	**.41**	**.53**
PWB Autonomy	-.09	-.14	-.07	**-.47**
% of common variance accounted for	27.8	22.8	22.4	19.2

Notes. *N*= 181. *BFI* = Big Five Inventory; *WHODAS-II* = World Health Organization Disability Assessment Schedule II; *MDPF* = Measure of Disordered Personality Functioning; *SIPP-SF* = Severity Indices of Personality Problems – Short Form; *WHOQOL-BREF* = World Health Organization Quality of Life-Brief; Satisfaction with Life Scale; *PWB* = Scales of Psychological Well-Being. *Factor 1* = Poor Basic Functioning; *Factor 2* = Low Satisfaction and Poor Interpersonal Functioning; *Factor 3* = Externalizing Dysfunction; *Factor 4* = Internalizing Dysfunction. Loadings > |.40| bolded.

Table A51

Correlations between Factor Scores for a Three-Factor Solution of Psychosocial Functioning and BFI (no Openness), SNAP-2, and IDAS in Study 2

	Internalizing/ Externalizing Dysfunction	Poor Positive Functioning	Poor Basic Functioning
BFI			
Neuroticism	.55*	.42	.27
Extraversion	*-.30*	-.45*†	-.15
Agreeableness	**-.60*†**	-.16	-.01
Conscientiousness	-.48*	*-.31*	-.40†
SNAP-2			
Negative Temperament	**.60*†**	*.32*	.22
Mistrust	.52*	*.35*	.26
Manipulativeness	.46*	.12	.16
Aggression	.48*	.11	.20
Self-Harm	.48	.59*†	.41†
Eccentric Perception	.40*	-.03	*.32*
Dependency	.24*	.18	.13
Positive Temperament	-.27	-.58*†	-.24
Exhibitionism	-.25*	-.23	-.12
Entitlement	-.16	-.27*	.02
Detachment	.44*	.40	.05
Disinhibition	*.39**	.08	.09
Impulsivity	.44*	.08	.17
Propriety	-.10*	.08	.03
Workaholism	-.01	-.12*	.13*
IDAS			
General Depression	*.31*	.52	.56*†
Dysphoria	*.33*	.54*	.53
Lassitude	.16	*.36*	.54*
Insomnia	.21	.28	.41*
Suicidality	*.32*	*.30*	*.37**
Appetite Loss	.19	.11	.24*
Appetite Gain	.14*	-.02	.14*
Ill Temper	.48*†	.21	.27
Well-Being	-.17	**-.64*†**	-.41
Anxiety	*.33*	.40*	*.35*
Panic	*.37*	.21	.43*
Traumatic Intrusion	*.35*	.18	.43*

Table A51 (cont.)

Notes. *N*= 181. *BFI* = Big Five Inventory; *SNAP-2* = Schedule for Nonadaptive and Adaptive Personality – 2; *IDAS* = Inventory of Depression and Anxiety Symptoms. Correlations greater than |.60| are bolded. Correlations in |.40| ~ |.59| range are underlined. Correlations in range|.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column (± |.01|) among BFI/ SNAP-2/IDAS, respectively. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A52

Correlations between Factor Scores for a Four-Factor Solution (with BFI) of Psychosocial Functioning and SNAP-2and IDAS in Study 2

	Basic Functioning	Poor Positive Functioning	Poor Externalizing Dysfunction	Internalizing Dysfunction
SNAP-2				
Negative Temperament	.19	.22	*.32*	**.76***†
Mistrust	.29	*.35*	.46*	.24
Manipulativeness	.19	.07	.54*	.18
Aggression	.18	.05	.59*†	.22
Self-Harm	.49*†	.46	.27	.49*
Eccentric Perception	*.32*	-.04	.43*	.12
Dependency	.16	.09	.06	*.36**
Positive Temperament	-.29	**-.66***†	-.10	-.20
Exhibitionism	-.08	-.44*	-.01	-.20
Entitlement	.01	-*.37**	.03	-.20
Detachment	.04	**.62***	*.33*	.18
Disinhibition	.14	.02	.50*	.12
Impulsivity	.23	-.02	.50*	.17
Propriety	.04	.07	-.21*	.02
Workaholism	.09	-.14*	.05	-.03
IDAS				
General Depression	.55*†	.42	.18	.47
Dysphoria	.51	.41	.19	.54*†
Lassitude	.52*	.24	.03	.43
Insomnia	.41*	.23	.14	.27
Suicidality	*.37**	.24	.24	*.32*
Appetite Loss	.24*	.11	.18	.10
Appetite Gain	.12	-.06	.10	.15*
Ill Temper	.25	.11	*.38*	.43*
Well-Being	-.41	-.59*†	-.08	-*.35*
Anxiety	*.33*	*.30*	.21	.44*
Panic	.43*	.17	*.32*	.25
Traumatic Intrusion	.43*	.14	*.30*	.25

Notes. *N*= 181. *SNAP-2* = Schedule for Nonadaptive and Adaptive Personality – 2. *IDAS* = Inventory of Depression and Anxiety Symptoms. Correlations greater than |.60| are bolded. Correlations in |.40| ~ |.59| range are underlined. Correlations in range|.30| ~ |.39| are italicized. *Highest correlation in row (± |.01|). †Highest correlation in column

Table A52 (cont.)

(± |.01|) among SNAP-2/ IDAS, respectively. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table A53

Hierarchical Regression Analysis Predicting Personality Pathology with SNAP-2 Temperament Traits and Psychosocial Functioning in Study 2

Variables	*B*	*SE B*	*β*
STEP 1 Variables			
SNAP-2 Factor 1 Score	16.39	0.95	.78***
SNAP-2 Factor 2 Score	-4.15	.98	-.19***
R^2		.65	
F for change in R^2		164.80***	
STEP 2 Variables			
Overall Functioning Factor Score	3.42	0.91	.29**
R^2		.68	
F for change in R^2		14.01**	

Notes. N= 181. *SCID-II-PQ = SCID-II Personality Questionnaire; SNAP-2* = Schedule for Nonadaptive and Adaptive Personality – 2. ** $p < .001$. *** $p < .0001$.

APPENDIX B

SUPPLEMENTARY TABLES

Table B1

Study 1 and 2 Correlations within the BFI

Measure	1	2	3	4	5
1. Neuroticism		*-.36*	-.41	*-.39*	-.07
2. Extraversion	-.20		.18	.23	.27
3. Agreeableness	*-.32*	.20		.40	.11
4. Conscientiousness	-.11	.10	.15		.14
5. Openness	-.19	.22	.14	.14	

Notes. Study 1 *N*=429; Study 2 *N* = 181; Study 1 correlations are presented in the lower triangle; Study 2 correlations are presented in the upper triangle. *BFI* = Big Five Inventory. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Study 1 correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$. Study 2 correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table B2

Study 1 and 2 Correlations within the IDAS

Measure	1	2	3	4	5	6	7	8	9	10	11	12
1. General Depression		**.97**	**.71**	**.77**	**.72**	.55	.18	**.64**	**-.62**	**.60**	**.61**	**.61**
2. Dysphoria	**.96**		**.68**	**.69**	**.68**	.45	.24	**.64**	-.59	**.63**	**.61**	**.64**
3. Lassitude	**.76**	**.71**		.57	.41	.29	*.33*	.41	-.46	*.38*	*.34*	*.38*
4. Insomnia	**.68**	.57	.49		.45	.45	.22	.49	-.29	.46	.47	.44
5. Suicidality	.56	.53	.39	.33		.48	.08	.53	*-.39*	.47	.50	.50
6. Appetite Loss	**.61**	.51	.42	.42	.43		-.13	.41	-.11	*.32*	.40	*.38*
7. Appetite Gain	.43	.44	.44	.32	.26	.15		.16	.04	.18	.12	.11
8. Ill Temper	.57	.56	.44	.42	.40	*.35*	*.35*		-.28	.50	.56	.50
9. Well-Being	-.55	-.46	-.28	-.25	-.24	-.17	-.16	-.28		-.25	-.25	-.27
10. Anxiety	.55	.57	.41	*.34*	*.37*	*.31*	.29	*.38*	-.24		**.69**	.58
11. Panic	**.63**	**.62**	.50	*.38*	.58	.51	*.31*	.52	-.20	.57		**.61**
12. Traumatic Intrusion	.57	.59	.42	*.34*	.37	.42	.28	.53	-.18	.44	.49	

Notes. N=429. Study 1 N=429; Study 2 N = 181. Study 1 correlations are presented in the lower triangle; Study 2 correlations are presented in the upper triangle. *IDAS* = Inventory of Depression and Anxiety Symptoms. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Study 1 correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$. Study 2 correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table B3

Study 1 and 2 Correlations between the BFI and IDAS

Measure	N	E	A	C	O
Study 1 IDAS					
General Depression	.51	-.16	-.23	*-.34*	-.02
Dysphoria	.50	-.12	-.18	*.32*	-.01
Lassitude	.32	-.03	-.17	*-.33*	.01
Insomnia	.27	-.08	-.18	-.18	-.02
Suicidality	.24	-.11	-.10	-.25	.05
Appetite Loss	.20	-.02	-.13	-.20	.01
Appetite Gain	.24	-.01	-.10	-.11	-.03
Ill Temper	*.39*	-.04	-.29	-.16	-.11
Well-Being	-.44	*.30*	.21	.26	.25
Anxiety	*.31*	*-.33*	-.13	-.18	-.06
Panic	.28	-.06	-.17	-.19	.03
Traumatic Intrusion	.29	-.03	-.17	-.15	.02
Study 2 IDAS					
General Depression	**.61**	-.40	-.28	-.41	-.05
Dysphoria	**.64**	-.40	-.28	-.44	-.05
Lassitude	.50	*-.32*	-.11	-.42	.00
Insomnia	*.34*	-.19	-.18	-.26	-.01
Suicidality	.40	-.19	-.24	-.25	-.05
Appetite Loss	.18	-.07	-.20	-.09	-.03
Appetite Gain	.10	.03	-.05	-.12	.00
Ill Temper	.45	-.15	-.43	-.24	-.08
Well-Being	-.56	.48	.20	*.37*	.20
Anxiety	.43	-.40	-.23	*-.33*	-.07
Panic	*.35*	-.21	-.27	-.26	-.12
Traumatic Intrusion	*.38*	-.17	*-.33*	*-.33*	.02

Notes. Study 1 *N*=429; Study 2 *N* = 181; Study 1 correlations are presented in the lower triangle; Study 2 correlations are presented in the upper triangle. *BFI* = Big Five Inventory; *IDAS* = Inventory of Depression and Anxiety Symptoms; *N* = BFI Neuroticism; *E* = BFI Extraversion; *A* = BFI Agreeableness; *C* = BFI Conscientiousness; *O* = BFI Openness. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Study 1 correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$. Study 2 correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table B4

Correlations Among the BFI, IDAS, and PANAS in Study 1

	PANAS	
Measure	Positive Affect	Negative Affect
BFI		
Neuroticism	-*.33*	.49
Extraversion	*.35*	-.06
Agreeableness	.18	-.20
Conscientiousness	*.33*	-.25
Openness	*.30*	-.09
IDAS		
General Depression	-*.38*	**.74**
Dysphoria	-*.30*	**.76**
Lassitude	-.18	.57
Insomnia	-.16	.42
Suicidality	-.20	.40
Appetite Loss	-.14	.40
Appetite Gain	-.12	*.38*
Ill Temper	-.23	.58
Well-Being	**.75**	-*.37*
Anxiety	-.19	.44
Panic	-.15	.49
Traumatic Intrusion	-.11	.49
PANAS Positive Affect	1.0	-.22

Notes. N=429. *BFI* = Big Five Inventory; *IDAS* = Inventory of Depression and Anxiety Symptoms; *PANAS* = Positive and Negative Affect Schedule. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.19|, $p < .0001$; ≥|.16|, $p < .001$; ≥|.13|, $p < .01$.

Table B5

Correlations within the SNAP-2 Trait Scales

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Negative Temperament														
2. Mistrust	.45													
3. Manipulativeness	*.35*	.45												
4. Aggression	.42	.49	.47											
5. Self-Harm	.58	.49	*.38*	*.38*										
6. Eccentric Perception	*.37*	.45	.49	*.37*	*.38*									
7. Dependency	*.32*	.16	.29	.01	*.30*	.15								
8. Positive Temperament	-.20	-.21	-.08	-.10	-.40	.01	-.23							
9. Exhibitionism	-.14	.01	.21	.10	-.13	.05	.02	.41						
10. Entitlement	-.11	.12	.18	.09	-.23	.11	-.11	.44	.50					
11. Detachment	*.35*	.40	.20	.23	.42	.25	-.03	-.50	-.47	-.29				
12. Disinhibition	*.30*	.43	**.63**	.46	*.35*	.47	.20	-.10	.15	.09	.21			
13. Impulsivity	*.32*	*.33*	.57	.40	*.33*	.42	.19	-.13	.16	.06	.14	**.70**		
14. Propriety	.03	.12	-.20	-.10	.04	-.15	.02	.10	-.02	.07	-.05	-.21	-.27	
15. Hardwork	.08	.16	-.04	-.01	.06	.11	-.09	*.38*	.00	.15	-.07	-.23	-.19	*.38*

Notes N=181. *SNAP-2* = Schedule for Adaptive and Nonadaptive Personality – 2. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table B6

Correlations between the SNAP-2 Trait Scales and Revised Psychosocial Functioning Measures in Study 2

	SNAP-2														
Measure	NT	MIS	MAN	AGG	SH	EP	DEP	PT	EXH	ENT	DET	DIS	IMP	PRO	HW
BFI															
Neuroticism	**.80**	.35	.24	.35	**.61**	.18	.31	-.39	-.21	-.20	.36	.21	.23	.01	-.01
Extraversion	-.27	-.25	-.01	-.01	-.31	-.08	-.14	**.62**	.58	.41	**-.72**	-.01	.05	.04	.06
Agreeableness	-.43	-.48	-.52	-.64	-.33	-.34	-.05	.15	-.05	.00	-.41	-.39	-.36	.20	.01
Conscientiousness	-.35	-.33	-.53	-.29	-.47	-.39	-.34	.43	.07	.21	-.32	-.58	-.55	.26	.29
Openness	.02	-.14	-.06	.00	-.03	-.11	-.21	.33	.27	.20	-.17	-.09	-.03	-.16	.16
IDAS															
General Depression	**.62**	.41	.24	.28	**.70**	.35	.27	-.37	-.19	-.22	.38	.27	.26	.09	.09
Dysphoria	**.65**	.42	.26	.26	**.70**	.38	.33	-.35	-.19	-.20	.39	.28	.28	.06	.07
Lassitude	.47	.21	.21	.19	.51	.18	.28	-.38	-.15	-.22	.21	.21	.18	.04	-.08
Insomnia	.41	.28	.17	.20	.43	.24	.06	-.15	-.13	-.11	.23	.23	.20	.16	.11
Suicidality	.43	.33	.26	.29	**.67**	.29	.23	-.22	-.05	-.08	.23	.24	.22	.06	.11
Appetite Loss	.25	.24	.17	.20	.36	.21	.05	-.01	-.03	-.13	.12	.16	.12	.07	.17
Appetite Gain	.13	.09	.10	.00	.06	.08	.13	.00	.13	.08	-.05	.16	.17	.02	-.01
Ill Temper	.52	.37	.35	.55	.44	.32	.15	-.12	-.02	-.05	.20	.30	.30	.00	.11
Well-Being	-.42	-.24	-.11	-.16	-.54	-.15	-.25	**.61**	.28	.30	-.39	-.14	-.17	.01	.07
Anxiety	.49	.43	.16	.20	.48	.26	.23	-.27	-.26	-.19	.40	.18	.21	.04	.07
Panic	.45	.41	.24	.31	.45	.40	.10	-.16	-.14	-.12	.34	.28	.26	.14	.16
Traumatic Intrusion	.46	.46	.33	.34	.49	.49	.15	-.11	-.02	-.01	.24	.25	.25	.02	.16

Table B6 (cont.)

Notes N=181. *BFI* = Big Five Inventory; *IDAS* = Inventory of Depression and Anxiety Symptoms; *SNAP-2* = Schedule for Adaptive and Nonadaptive Personality – 2; *NT* = Negative Temperament; *MIS* = Mistrust; *MAN* = Manipulativeness; *AGG*= Aggression; *SH* = Self-Harm; *EP* = Eccentric Perception; *DEP* = Dependency; *PT* = Positive Temperament; *EXH* = Exhibitionism; *ENT* = Entitlement; *DET* = Detachment; *DIS* = Disinhibition; *IMP*= Impulsivity; *PRO* = Propriety; *HW* = Workaholism. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.

Table B7

Correlations among the SCID-II-PQ and IPDS Total Scores in Study 2

Measure	1	2	3	4	5	6	7	8	9	10	11	12
1. Paranoid												
2. Schizoid	.28											
3. Schizotypal	.48	*.33*										
4. Antisocial	.29	.22	*.39*									
5. Borderline	**.61**	.23	.49	*.31*								
6. Histrionic	.14	-.14	.22	.21	.21							
7. Narcissistic	.43	.18	.45	.26	.43	.43						
8. Avoidant	.50	.21	.26	.05	.49	-.18	.14					
9. Dependent	*.35*	.15	.41	.21	.48	.18	.22	*.31*				
10. Obsessive-Compulsive	*.37*	.18	*.30*	.17	*.34*	.17	.25	*.31*	.23			
11. Passive-Aggressive	**.62**	.27	.47	.25	**.67**	.23	.55	.42	.47	*.38*		
12. Depressive	**.60**	.19	*.36*	.10	**.66**	.05	*.30*	**.69**	*.38*	*.35*	**.61**	
13. IPDS Total	.59	.29	.42	.23	**.71**	.06	*.31*	**.60**	.42	*.30*	.54	**.63**

Notes. *N*=181. *SCID-II-PQ* = SCID-II Personality Questionnaire; *IPDS* = Iowa Personality Disorder Screen. Correlations greater than |.60| are bolded. Correlations in the range |.40| ~ |.59| are underlined. Correlations in the range |.30| ~ |.39| are italicized. Correlations are significant as follows: ≥ |.29|, $p < .0001$; ≥|.25|, $p < .001$; ≥|.20|, $p < .01$.