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SCHIZOTYPAL PERSONALITY QUESTIONNAIRE-BRIEF: FACTOR STRUCTURE AND CONVERGENT VALIDITY IN INPATIENT ADOLESCENTS

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We examined the internal consistency, factor structure, and validity of the Schizotypal Personality Questionnaire-Brief (SPQ-B). Two hundred thirty-seven psychiatrically hospitalized adolescents were administered the SPQ-B and a battery of well-established self-report instruments. The SPQ-B demonstrated adequate internal consistency. Exploratory factor analysis provided mixed support for the SPQ-B 3-factor structure of interpersonal deficits, cognitive-perceptual deficits, and disorganization. The Interpersonal and Cognitive-Perceptual subscales demonstrated convergent and discriminant relationships with other measures of interpersonal impairment and cognitive abnormalities. We concluded that the SPQ-B is a promising measure for evaluating schizotypal personality disorder features, specifically interpersonal and cognitive-perceptual deficits, with adolescent psychiatric inpatients.

The Schizotypal Personality Questionnaire (SPQ), a 74-item self-report instrument modeled after the DSM-III-R schizotypal personality disorder diagnostic criteria (largely unchanged in DSM-IV), was developed to study schizotypal personality patterns and to screen for schizotypal personality disorder in the general community (Raine, 1991). Raine (1991) demonstrated adequate reliability for the SPQ for each of the nine DSM-III-R criterion scales, and adequate validity through correlation with the DSM criterion as measured by semistructured interview. The SPQ has been used to explore the factor structure of schizotypal personality (Chen, Hsiao, & Lynn, 1997; Raine et al., 1994); to relate underlying dimensions of schizotypal personality to biobehavioral traits associated with schizophrenia (Chen, Hsiao, & Lin, 1997); and to identify individuals in the community with schizotypal personality disorder, confirmed by semistructured interview (Raine, 1991).

The SPQ has been shown to have a three factor structure in adolescent and adult community samples (Chen, Hsiao, & Lin, 1997; Raine,

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Reynolds, Lencz, Scerbo, Triphon, & Kim, 1994). Modeled in part after three components of schizophrenia, the three SPQ factors include: cognitive-perceptual deficits (Ideas of Reference, Magical Thinking, Unusual Perceptual Experiences, and Paranoid Ideation), interpersonal deficits (Social Anxiety, No Close Friends, Blunted Affect, Paranoid Ideation), and disorganization (Odd Behavior, Odd Speech).

Raine and Benishay (1995) developed the Schizotypal Personality Questionnaire-Brief (SPQ-B), a shorter screening version of the SPQ, containing 22 items and scales for the three factors. The SPQ-B demonstrated adequate reliability and correlation with the larger instrument. In relation to semistructured diagnostic interview, adequate support was found for the SPQ-B Interpersonal, Cognitive-Perceptual, and SPQ-B total scales, and marginal support was found for the Disorganization scale. One explanation for the equivocal findings for the Disorganization scale suggested by the authors was that self-report methods for measuring signs (as opposed to symptoms) may not be adequate. However, this explanation is inconsistent with previous work demonstrating adequate validity for the Odd Behavior and Odd Speech scales of the full-length 74-item SPQ that make up the disorganization factor (Raine, 1991). It is possible that the items in the brief measure are simply insufficient to capture the disorganization construct.

A limitation of past SPQ(-B) research is the confinement to community samples. There are several reasons why it is important to examine the SPQ-B in clinical samples. First, the psychometric properties of the SPQ-B may vary when examined in clinical settings. For example, the dimensions and items underlying schizotypal personality disorder may possess different sensitivity and specificity for identifying schizotypal individuals across patient and community samples (e.g., Widiger, Frances, & Trull, 1987). Second, the SPQ-B may be useful for augmenting psychological evaluation including personality assessment, problem clarification, and treatment planning. For example, to the extent that the SPQ-B measures the broader construct of schizotypy (Meehl, 1962), it might be useful for identifying adolescents or young adults at risk for developing psychosis.

The current study explores the psychometric properties of the SPQ-B in a clinical sample of adolescent psychiatric inpatients. Internal reliability and scale variations across diagnostic study groups are examined, as well as the SPQ-B factor structure. The validity of the SPQ-B subscales is explored by examining convergent and discriminant relationships with relevant adolescent personality scales of the Millon Adolescent Clinical Inventory (MACI; Millon, Millon, & Davis, 1993) and measures of cognitive abnormalities from the Adolescent Dissociative Experience Scale (ADES; Armstrong, Putnam, Carlson, Livero, & Smith, 1997).

The MACI Borderline Tendency, Introversive (schizoid), and the Inhibited (avoidant) scales were selected for convergence with the SPQ-B because of their strong empirical and theoretical relationships with schizotypal personality. Schizotypal and borderline personality disorders have high rates of overlap in clinical samples (American Psychiatric Association, 1994; Siever, Bernstein, & Silverman, 1995; Silverman, Siever, Zanarini, Coccaro, & Mitropoulou, 1998). Personality disorders having the next

greatest amount of overlap with schizotypal in the DSM-IV field trials included paranoid (52%), schizoid (40%), and avoidant (40%) personality disorders (Silverman et al., 1998); this "considerable co-occurrence" is noted in the DSM-IV (APA, 1994, p. 642). Millon's evolutionary personality model and description of the MACI (Davis, 1999; Millon et al., 1993) also suggest association between schizotypal personality disorder and the borderline, schizoid, and avoidant personality disorders. Millon's model also predicts a relationship with paranoid personality disorder; however, this personality dimension is not represented in the MACI.

In addition to the MACI personality scales, the ADES Absorption and Imaginative Involvement (AII) and Depersonalization and Derealization (DD) subscales were selected for comparison with the SPQ-B. These scales were chosen because the constructs are clinically relevant to the unusual perceptual experiences, illusions, and odd thinking of schizotypal personality disorder (APA, 1994).

We hypothesized that the SPQ-B Interpersonal Deficits scale would correlate significantly with MACI Borderline Tendency, Introversive (schizoid), and Inhibited (avoidant) scales. We further speculated that the magnitude of these correlations would be greater than the correlations of the Cognitive-Perceptual scale with the MACI borderline, schizoid, and avoidant scales. However, the latter prediction regarding the pattern of correlation between the SPQ-B scales and borderline personality was more tentative because perceptual abnormalities are now a component of borderline personality disorder (APA, 1994). The Cognitive-Perceptual scale was expected to correlate significantly with the ADES AII and DD subscales. The magnitude of correlation between the Cognitive-Perceptual scale with these measures was expected to be greater than those with the Interpersonal scale.

METHOD

SUBJECTS

Subjects were 237 adolescent inpatients admitted to the evaluation and crisis intervention unit of a private, nonprofit psychiatric teaching hospital. These patients were hospitalized for a variety of serious psychiatric problems including suicidality, homicidality, and psychosis. Patients were admitted on the basis of need for inpatient-level intervention; no other selection processes were used. Inclusion criteria for the study population included: (1) an adequate ability to read and comprehend the psychological evaluations used, (2) not actively psychotic, and (3) not so cognitively impaired or agitated as to preclude evaluation. One hundred three subjects (43.5%) were male, and 134 (56.5%) were female. Ages ranged between 13 and 19 years ($M = 15.8$, $SD = 1.4$). One hundred seventy-eight (75.1%) of the subjects were Caucasian, 30 (12.7%) were African American, and 29 (12.2%) were Hispanic American.

The sample was diagnostically heterogeneous. The most frequently assigned DSM-IV diagnoses were, in descending order, major depression (50.6%), substance use disorders (38.4%), and disruptive behavior disorders (35.9%). Thirty-four subjects (14.3%) were diagnosed with personality

disorders; these were primarily borderline personality disorder and personality disorder not otherwise specified. These represent clinical diagnoses that were generated at discharge based on a review of each patient's history and presenting data by a multidisciplinary treatment team of experienced clinicians under the supervision of one of the investigators (D.C.F.); semistructured diagnostic interviews were not used. These diagnoses were generated independently of this report's hypotheses.

STUDY GROUPS

Four non-overlapping diagnostic study groups were created from the overall study group ($n = 237$). These included: (1) patients diagnosed with any personality disorder ($n = 34$); (2) patients diagnosed with conduct disorder and no personality disorder ($n = 41$); (3) patients diagnosed with substance use disorders and no personality disorder, conduct disorder, or major depressive disorder ($n = 26$); and (4) patients diagnosed with major depressive disorder and no personality disorder, conduct disorder, or substance use disorders ($n = 61$).

MEASURES

Schizotypal Personality Questionnaire-Brief (Raine & Benishay, 1995) is a 22-item self-report inventory designed to assess DSM-IV schizotypal personality disorder in community samples. The SPQ-B contains two 8-item scales measuring Interpersonal Deficits and Cognitive-Perceptual Deficits, and one 6-item scale measuring Disorganization.

The Interpersonal Deficits scale includes content measuring social anxiety, lack of friends, blunted affect, and paranoid ideation. The Cognitive-Perceptual scale includes content reflecting ideas of reference, magical thinking, unusual perceptual experiences, and paranoid ideation. Separate items measuring paranoid ideation are used for the Interpersonal and Cognitive-Perceptual scales. The Disorganization scale includes content reflecting odd behavior and odd speech. Raine and Benishay (1995) reported adequate internal consistency for the three subscales (coefficient alpha = .72 to .78). Adequate criterion validity with a semistructured diagnostic interview was found for the Cognitive-Perceptual and Interpersonal Deficits scales ($r = .55$ to $.73$), and marginal criterion validity was found for the Disorganization scale ($r = .34$ and $.37$).

The Millon Adolescent Clinical Inventory (Millon et al., 1993) is a 160-item, self-report inventory developed and normed with clinical samples (Millon & Davis, 1993; Millon et al., 1993) and used with adolescent inpatients (Grilo, Fehon, Walker, & Martino, 1996; Millon & Davis, 1993). The MACI is characterized by good psychometric properties and good theoretical-substantive, internal-structural, and external-criterion validation (Millon & Davis, 1993; Millon et al., 1993). MACI scoring provides raw scores and base rate scores for each scale. The items of each scale are weighted based on prototypicality, and the summation of the weighted items make raw scores. Base rate scores take age, gender, and actuarial base rate data into account, which are then adjusted based on test-taking attitudes (i.e., levels of disclosure, desirability, and debasement), psychological defensive-

ness, and acute or intense emotional states. Three specific personality scales of the MACI were used in this study: the Borderline Tendency scale, Introversive (schizoid) scale, and the Inhibited (avoidant) scale.

The Borderline Tendency scale contains 21 items that assess core emotional, cognitive, and behavioral aspects of the borderline personality (e.g., "I sometimes get so upset that I want to hurt myself seriously"). The Introversive (schizoid) scale contains 44 items that assess social indifference and isolation, apathy, and low emotionality (e.g., "I don't need to have close friendships like other kids do"). The Inhibited (avoidant) scale contains 37 items that assess shyness and social discomfort, distrust, and avoidance of close relationships (e.g. "I often feel that others do not want to be friendly to me"). The three personality scales have showed adequate internal consistency in two validation samples (coefficient alpha = .82 to .86) and 3-to-7-day test-retest correlations (.63 to .92; Millon et al., 1993).

The Adolescent Dissociative Experience Scale is a 30-item self-report screening measure of dissociation that has been used with clinical samples (Armstrong et al., 1997). The ADES has shown excellent internal reliability with clinical subjects (split-half $r = .92$, alpha = .93; Armstrong, 1997), and adequate 2-week test-retest reliability in a mixed junior high and high school sample ($r = .77$; Smith & Carlson, 1996). The ADES includes subscales measuring Dissociative Amnesia, Absorption and Imaginative Involvement, Passive Influence, and Depersonalization and Derealization. The Absorption and Imaginative Involvement and Depersonalization and Derealization scales were used for this study.

The Absorption and Imaginative Involvement subscale contains six items that assess the tendency to become lost in imagination or to have difficulty distinguishing between imagination and reality (e.g., "When I am somewhere that I don't want to be, I can go away in my mind"). The Depersonalization and Derealization subscale contains 12 items that assess a tendency to feel disconnected from oneself and to have to have a fragmented sense of self (e.g., "My body feels as if it doesn't belong to me"). The AII and DD scales showed adequate internal reliability (alpha = .72 and .82, respectively; Armstrong et al., 1997).

PROCEDURES

Within 1-to-3 days of admission, patients were administered a standard battery of self-report psychological assessments as part of their overall hospital evaluation procedures. The present report is based on these procedures and retrospective chart-review. All 237 subjects completed the SPQ-B, 210 subjects completed the MACI, and 127 subjects completed the ADES. All measures were administered and scored by computer. A psychology technician trained to oversee the evaluation process ensured that subjects did not fatigue and that they understood the self-report items. Computer methodologies appear to be particularly useful for assessing sensitive topics (Fowler, 1985). In individuals characterized by schizotypal features such as excessive social anxiety and paranoid ideation, computer assessment may remove some of the interpersonal concerns or barriers to accurate self-disclosure. Computerized assessments of self-report instruments similar to those employed here have also been found to be favorable

to pen-and-pencil versions in terms of reliability and validity (Wilson, Genco, & Yager, 1985).

RESULTS

SPQ-B PSYCHOMETRICS AND DIAGNOSTIC GROUP COMPARISONS

Mean scores and standard deviations for the SPQ-B were as follows: Interpersonal ($M = 3.6$, $SD = 2.4$); Cognitive-Perceptual ($M = 2.7$, $SD = 2.2$); Disorganized ($M = 2.3$, $SD = 2.0$); and SPQ-B Total ($M = 8.6$, $SD = 5.5$). Internal reliability (Coefficient Alpha) for the three scales and total scale, respectively, were .76, .74, .75., and .87. Corrected item-total correlations for the total scale ranged from .23 to .55, and item-total correlations for the three subscales ranged from .30 to .57.

Table 1 presents SPQ-B mean scores and standard deviations including normative data of 220 college students reported by Raine and Benishay (1995), the study group of 237 inpatient adolescents, and four non-overlapping diagnostic subgroups of the full sample: Personality Disorder ($n = 34$); Conduct Disorder ($n = 41$); Substance Use Disorders ($n = 26$); and Major Depressive Disorder ($n = 61$). The adolescent inpatient group had SPQ-B scores that are similar to, if not slightly lower than, the college student sample. Within the inpatient group, the four diagnostic groups were significantly different on the SPQ-B total score ($F = 2.965$; $p < .05$) and the Interpersonal Deficits scale ($F = 5.528$; $p < .001$). Post-hoc comparisons using the Ryan procedure (REGWQ) showed that the Personality Disorder group had significantly greater Interpersonal Deficit scores than the Conduct Disorder and Substance Use Disorders groups ($p < .05$).

FACTOR ANALYSIS

A principle components factor analysis of the SPQ-B items with Varimax rotation and factor selection based on Eigen values over 1.0 resulted in a 5-factor solution that explained 53% of the variance. However, visual inspection of the scree plot revealed a noticeable Eigen value drop and leveling off after the third component. Because of this, and the theoretical import of a 3-factor solution (Raine et al., 1994), we re-analyzed the SPQ-B items specifying three factors (Table 2). Convergence of the three-factor solution and the SPQ-B scale structure is noted in Table 2 with bold-faced type.

The 3-factor SPQ-B solution accounted for 43% of the variance and generally converged with the three SPQ-B scales of interpersonal discomfort, cognitive-perceptual deficits, and disorganization. Only three items did not have primary factor loadings on the expected factor. All but one of the items from the Interpersonal scale had a primary loading on the first factor, all items from the Cognitive-Perceptual scale had primary loadings on the second factor (with the exception of paranoid ideation items, discussed below), and all but two items of the Disorganization scale had primary loadings on the third factor. The Disorganization item "I sometimes use words in unusual ways" had a strong secondary loading of .44 on the

TABLE 1. SPQ-B Means (SD) and Comparisons by Diagnostic Group

SPQ-B Scale	College students Raine & Benschay (n = 220) ^a	Inpatient adolescents (n = 237)	Inpatient adolescent diagnostic group comparisons				F (df = 158,3)
			Personality disorder (n = 34)	Conduct disorder (n = 41)	Substance use disorders (n = 26)	Major Depression disorder (n = 61)	
Interpersonal	3.6 (2.4)	3.6 (2.4)	4.7 (2.4) ^{b,c}	2.9 (2.1)	3.6 (2.4)	3.8 (2.2)	5.528***
Cognitive-perceptual	3.6 (2.3)	2.7 (2.2)	3.1 (2.4)	2.7 (2.6)	2.4 (2.2)	2.8 (2.0)	0.527
Disorganization	2.5 (1.9)	2.3 (2.0)	2.9 (1.9)	2.2 (1.7)	2.0 (2.2)	2.5 (1.9)	1.323
Total score	9.6 (5.3)	8.6 (5.5)	10.6 (5.8)	7.8 (5.2)	7.0 (6.0)	9.2 (4.6)	2.965*

* $p < .05$; ** $p < .01$; *** $p < .001$. The Ryan procedure (REGWG) was used for post-hoc comparisons ($p < .05$). ^aData reported by Raine and Benschay (1995).

^bPersonality Disorder group > Conduct Disorder group.

^cPersonality Disorder group > Substance Use Disorders group.

TABLE 2. SPQ-B Factor Analysis: Varimax Solution with 3 Factors

Item	Factor loadings		
	1 Interpersonal	2 Cognitive-Perceptual	3 Disorganized
7. on my guard even with friends ^a	.444	.397	.247
9. often pick up hidden threats ^a	.432	.413	.112
11. discomfort with unfamiliar people	.638	.142	.095
14. not let people know about you ^a	.516	.246	.231
15. tend to keep in the background	.698	.087	.006
17. stops people from taking advantage ^a	.420	.330	.178
18. unable to get "close" to people	.561	.076	.264
20. hard to communicate clearly	.458	.135	.254
21. very uneasy talking to people	.658	-.018	.130
22. tend to keep my feelings to myself	.602	-.045	.065
2. sense some person or force	.112	.708	.066
4. people can tell what you're thinking	.151	.487	.132
5. noticed special signs for you	-.010	.679	.058
10. people are taking notice of you	.362	.508	.010
12. astrology, UFOs, ESP, sixth sense	-.259	.524	.278
13. I use words in unusual ways	.116	.456	.444
16. distracted by distant sounds	.135	.649	.193
1. people find me aloof and distant	.327	-.061	.536
3. unusual mannerisms and habits	.148	.259	.600
6. people think I am very bizarre	.123	.203	.766
8. people find me vague and elusive	.140	.256	.544
19. I am an odd, unusual person	.163	.101	.780
Eigen values	5.940	2.057	1.406
Percent of variance	27.0	9.3	6.4
Total variance			42.7

N = 237. This solution was obtained by specifying a three-factor solution. Expected loadings are indicated in bold.

^aParanoid Ideation items are expected to load on both the Interpersonal and Cognitive/Perceptual factors.

disorganization factor. Only one SPQ-B item loaded below .30 on the factor containing the other items of the subscale ("I find it hard to communicate clearly what I want to say to people" loaded .25 on Factor 3 interpreted as disorganization; this item loaded .46 on Factor 1 interpreted as interpersonal discomfort).

It was anticipated that the four items measuring paranoid ideation would load on both the interpersonal discomfort and cognitive-perceptual factors, in accordance with the three factor model and scale structure used by Raine and Benishay (1995). These four items all had primary loadings on the interpersonal discomfort factor ranging from .42 to .52, and secondary loadings on the cognitive-perceptual factor ranging from .25 to .41.

SPQ-B SCALE CONVERGENCE WITH CRITERION MEASURES

Correlations of the SPQ-B scales with selected MACI and ADES scales are presented in Table 3. Analyses use SPQ-B scales that are scored as indi-

TABLE 3. SPQ-B Scales Convergent/Discriminant Validity

	SPQ-B Scales		
	Interpersonal	Cognitive-Perceptual	Disorganization
MACI (<i>N</i> = 210)			
Borderline Tendency			
Raw Score	.52	.46	.49
BR Score	.36	.35	.39
Introversive (Schizoid)			
Raw Score	.66 ^a	.38	.46
BR Score	.59 ^a	.30	.37
Inhibited (Avoidant)			
Raw Score	.63 ^a	.37	.42
BR Score	.49 ^a	.22	.25
ADES (<i>N</i> = 127)			
Absorption and Imaginative Involvement	.43	.56 ^b	.50
Depersonalization and Derealization	.46	.54	.55

All correlations are statistically significant at $p < .01$. Differences in the magnitude of correlations across SPQ-B scales are reported using a directional t test for non-independent correlations at $p < .05$.

^aCorrelations of the Interpersonal scale are significantly greater than correlations of the Cognitive-Perceptual and Disorganization scales.

^bCorrelation of the Cognitive-Perceptual scale is significantly greater than the correlation of the Interpersonal scale.

cated by Raine & Benishay (1995). All SPQ-B correlations with the MACI and ADES scales, ranging from .22 to .66, were statistically significant at the $p < .01$ level. Differences in the magnitude of correlations were calculated by directional t tests for non-independent correlations (Steiger, 1980). This procedure is necessary to test the hypothesis that convergent correlations are greater than discriminant correlations.

The magnitude of the Interpersonal scale correlations with the MACI Introversive (schizoid) and Inhibited (avoidant) scales, ranging from .49 to .66, were significantly greater than the correlations of the Cognitive-Perceptual and Disorganization scales with these measures, ranging from .22 to .46 (t values between 4.032 and 5.227, $p < .001$). The correlations of the Interpersonal, Cognitive-Perceptual, and Disorganization scales with MACI Borderline Tendency were not statistically different in magnitude (t values between 0.155 and 1.026).

The .56 correlation of the Cognitive-Perceptual scale with the ADES AII scale was greater in magnitude than the .43 correlation of the Interpersonal scale with AII ($t = 1.808$, $p < .05$). There were no significant differences in the magnitude of correlations between the Interpersonal, Cognitive-Perceptual, and Disorganization scales with the ADES DD scale.

DISCUSSION

The psychometric properties of the SPQ-B were investigated in an adolescent psychiatric inpatient sample. The SPQ-B and its subscales demonstrated adequate internal reliability, and the three subscales were reasonably well supported by factor analysis. Meaningful differences were

observed on the SPQ-B across diagnostic study groups. The SPQ-B scales correlated with measures of borderline, schizoid, and avoidant personality style (MACI), and with measures of imaginative involvement and derealization (ADES). In addition, the Interpersonal scale was more strongly associated with measures of social deficits (i.e., schizoid and avoidant personality style on the MACI), and the Cognitive-Perceptual deficits scale was more strongly associated with a measure of imaginative involvement. The Disorganization scale did not show a distinct pattern of association with other measures; however, this may have been a limitation of the external measures selected for this study. On the other hand, Raine and Benishay (1995) also reported limited external validity for the Disorganization scale.

The SPQ-B scale variation observed across diagnostic groups was primarily accounted for by higher Interpersonal Deficits scores in adolescent patients with personality disorder diagnoses as compared to adolescent patients with conduct disorder or substance use disorders and no personality disorder. This finding indicates that the interpersonal deficits measured by this SPQ-B scale might generalize to the social difficulties experienced by adolescents with other forms of personality pathology. At the same time, the Cognitive-Perceptual Deficits and Disorganization scales might be more specific to schizophrenia spectrum disturbance. Research comparing these diagnostic groups as defined by semistructured interview would provide an important replication of these findings based on clinical diagnoses.

We interpreted the factor analysis results as supporting a three-factor solution that converged with the SPQ-B scale structure (Raine & Benishay, 1995); however, we are aware that our interpretation is not indisputable. The 3-factor solution accounted for only 43% of the SPQ-B variance, raising the possibility of underextraction. While strict adherence to the Eigen rule of unity resulted in two additional factors, these factors contributed only 10% of variance and were not easily interpretable. On the other hand, our results and the results of Raine and Benishay (1995) showed limited convergent and discriminant validity for the SPQ-B Disorganization scale, raising the possibility that only two factors (interpersonal and cognitive-perceptual deficits) are sufficiently represented in the 22-item SPQ-B. Additional Disorganization items might help to more clearly reproduce the three-factor structure reported for the 74-item SPQ (Raine et al., 1994). Of course future research is needed to determine whether these potential shortcomings in the disorganization factor are purely psychometric, or perhaps reflect some greater difficulty with the conceptualization of psychotic disorganization as a dimensional personality construct.

Expected correlations of the SPQ-B scales with MACI personality disorder dimensions differed somewhat when examined using the MACI base rate scores and raw scores. Correlations with base rate scores were generally about .10 smaller in magnitude than with raw scores, and no differences were observed with respect to convergence and discrimination. MACI base rate scores differ from raw scores in that they are scaled to reflect the prevalence of adolescent clinical pathology, and are adjusted to potentially improve criterion validity using response style, personality pattern, and level of acute distress (Millon, Millon, & Davis, 1993). This methodology is

similar to the MMPI/MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989; Hathaway & McKinley, 1967) tradition of applying a *K*-correction to clinical scales in order to account for response style (i.e., defensiveness). It would be prudent to demonstrate empirically the effectiveness of such corrections before relying on them to increase criterion validity. For example, research supporting the *K*-correction for improving validity is lacking (Helmes & Reddon, 1993), and there are reports that defensiveness adjustments may actually decrease criterion validity on the MMPI and other measures (e.g., McCrae, 1986; McCrae & Costa, 1983; McCrae, Costa, Dahlstrom, Barefoot, Seigler, & Williams, 1989). Additional research is specifically recommended on the effectiveness of MACI base rate adjustments for convergence and discrimination with criterion measures, as well as for clinical prediction and diagnosis.

The generalizability of this study's findings may be limited to heterogeneous inpatient populations. The study's inclusion criteria of adequate reading ability and comprehension and the absence of psychosis or severe agitation, while resulting in little exclusion, potentially screened out the most severe spectrum of inpatient cases. At the same time, by excluding psychotic individuals, potential outliers on measures of schizophrenia-like symptoms that could have distorted findings may have been removed.

In summary, the SPQ-B is a potentially useful instrument for evaluating schizotypal personality disorder features, and specifically interpersonal and cognitive-perceptual deficits, with adolescent psychiatric inpatients. The SPQ-B and its subscales have adequate internal reliability and the subscale structure is reasonably well replicated by factor analysis. Meaningful SPQ-B scale variations were observed across diagnostic study groups with convergence of Interpersonal Deficits and personality disorder diagnoses, and the Interpersonal and Cognitive-Perceptual scales demonstrated convergent and discriminant relationships with other measures of interpersonal and cognitive-perceptual impairments. Future work revising the SPQ-B with additional Disorganization content might improve the instrument psychometrically. Additional research investigating the potential of the SPQ-B as a screening measure for clinical populations is warranted.

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