

LETTER TO EDITOR

A Brief Screening Measure for General Psychological Distress

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TO THE EDITOR,

Psychological distress refers to a state of emotional discomfort, often in reaction to stressors. It is predictive of psychiatric disorders and physical health syndromes (1). Most major assessment instruments designed to measure multiple psychiatric syndromes are saturated with psychological distress: typically evidenced by a common factor sharing a large percentage of statistical variance (2).

Despite its transdiagnostic nature, most brief dimensional measures of distress in the public domain include only items assessing depression and anxiety. This may limit their ability to identify psychiatric disturbances outside of neuroses. For example, the Kessler-6, a brief metric used mostly in epidemiological research, includes items that assess feelings of worthlessness, hopelessness, depression, inertia, fidgetiness, and restlessness (3). No item content of the Kessler-6 clearly taps hypomanic, psychotic, or social concerns.

The purpose of this report was to develop a brief dimensional measure of psychological distress by selecting items representing a range of syndromes from a public-domain broad-scale assessment of maladjustment. The intention was, if successful, that the new measure might be used by clinicians and researchers to screen for psychiatric disturbance pending additional study.

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METHOD

Two samples were utilized for this research. Sample 1 included 1100 (485 males, 615 females) undergraduate students at a small university in the United States. Data was collected across one year in introductory psychology and sociology courses required of all students at the university. The average age of the sample was 20.11 years ($SD=3.39$). Sample 2 included 116 (74 males, 42 females, 2 unidentified) students enrolled in introductory psychology courses at the same U.S. university. The average age was 19.15 years ($SD=1.64$).

Sample 1 completed the clinical scales of the Ausburg Multidimensional Personality Instrument (AMPI) (4). Though relatively brief, the 40 items of the AMPI clinical scales assess 10 domains including Somatization, Dysphoria, Hystericality, Psychodeviance, Feminine Interests, Paranoia, Schizotypic, Anxiousness, Hypomania, and Introversion. Readers are referred to the original scale article (4) for further description. Participants responded using a 7-point scale (1="Strongly disagree" to 7="Strongly Agree"). Sample 2 completed both the AMPI and the Brief Symptom Inventory (BSI)(5). The BSI includes 53 items that assess nine factors of psychopathology: Somatization, Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism. Participants responded using a 5-point scale (0="Not at all" to 4="Extremely"). Averaged responses to all BSI items yield a psychological distress score, the Global Severity Index (GSI). Sample 2 also completed a single-item self-esteem scale ("I have high self-esteem") using a 10-point scale (1="Strongly disagree" to 10="Strongly agree").

First, the existence of a psychological distress factor on the AMPI was investigated. Second, items were selected for a brief psychological distress measure representing a range of psychopathology. Finally, preliminary validity of the new scale was examined using the BSI-GSI and self-esteem item.

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RESULTS

To examine if a psychological distress factor could be identified using AMPI items, Sample 1 data was used to conduct a maximum likelihood factor analysis on total scores for the 10 AMPI scales. Three factors were extracted accounting for a total of 47.37% of the variance in responses. A Scree plot indicated that only the first factor, accounting for 37.20% (Eigenvalue=3.72) of the variance, should be retained. All scales, except for Feminine Interests, loaded above .40 on the first factor, which was interpreted as distress.

In attempts to retain a broad representation of AMPI “syndromes”, one item from each of the nine AMPI scales on the distress factor was selected as follows. Separate maximum likelihood factor analyses were conducted for the nine scales. Items with the highest factor loading for each scale were retained for the distress scale. These items are presented in Table 1. Corrected item-total scale correlations indicated that the items were homogeneous enough to be considered a single scale (Table 1).

Table 1. General Distress Scale Item Properties

Item	r_t	M	SD
1. The future looks bleak and hopeless to me.	.44	1.76	1.27
2. I become stressed easily.	.47	4.29	1.86
3. My mind has been so full of different ideas I couldn't focus on one thing.	.51	3.71	1.88
4. I am not likely to speak to people unless they speak to me first.	.34	3.52	1.85
5. I have to constantly be on my guard, even around friends.	.47	2.85	1.67
6. Sometimes I think I hear someone talking, though no one is there.	.39	1.80	1.37
7. My stomach is often upset.	.48	2.78	1.80
8. My moods change suddenly for no apparent reason.	.58	2.87	1.87
9. I find myself in similar kinds of trouble over and over again.	.42	2.29	1.66

Note: $N=1100$. r_t =Corrected item-total scale correlation.

A principle components analysis was calculated on the nine items to determine their structure. One factor was extracted accounting for 35.94% of the variance (Eigenvalue=3.24). Item loadings ranged from .47 (item 4) to .72 (item 8) with an average loading of .60.

For ease of reference the new scale was termed the General Distress Scale (GDS). Responses to GDS items were summed to produce a total score. Higher scores indicated more psychological distress. The coefficient alpha reliability of the GDS was .77 in Sample 1. The average score was 25.88 ($SD=9.16$) ranging from 8-54.

Normality of the scale was within acceptable limits (skewness=.43). To devise a preliminary cut-score for the GDS, the 90th percentile was used to determine “caseness”; that is, whether a case might have clinical significance. Using nonclinical norms for this was consistent with development of a cut-score for the BSI (5). The 90th percentile score in Sample 1 was 38.

Coefficient alphas of the GDS and BSI-GSI in Sample 2 were .82 and .96, respectively. As preliminary examination of the validity of the GDS, correlations were run between GDS scores and BSI-GSI scores and the self-esteem item. The correlation between the GDS and BSI-GSI was strong, $r=.74$, $p<.001$, $R^2=.55$. The GDS correlation with self-esteem was moderate, $r=-.34$, $p<.001$, $R^2=.12$. The difference between correlations was significant, $z=4.51$, $p<.001$. This provided some preliminary evidence that the GDS was able to differentiate a scale of the same construct (convergent validity) and a related but conceptually different measure (discriminant validity).

Using the GDS 90th percentile score for caseness two groups were created: a pseudo-case group and a control group. The control group consisted of 100 participants scoring below 38 on the GDS while the pseudo-case group consisted of 18 that scored 38 or above. There was a large effect with the pseudo-case group ($M=1.66$, $SD=.49$) scoring significantly higher than controls ($M=.60$, $SD=.45$) on BSI-GSI scores, $t(116)=9.07$, $p<.001$, $d=3.23$.

DISCUSSION

The purpose of this brief report was to describe development and preliminary examination of a brief measure for psychological distress. Consistent with previous research with other measures, (2) a psychological distress factor was found for the multi-scale AMPI. Preliminary examination indicated that the GDS was internally consistent and unidimensional. Moreover, preliminary evidence of convergent and discriminant validity were found.

Due to several limitations of the current research, the GDS must be considered preliminary. Though the development sample was large, both it and the smaller validity sample were composed of university students. This makes it difficult to generalize the findings to either community or clinical samples. Additional systematic research is needed to understand how the scale performs among clinical samples. Further validation is required using additional measures and more sophisticated designs such as confirmatory factor analysis. Also, additional study is needed to examine the efficacy of

the GDS in differentiating individuals with and without psychopathology using cut-scores. Despite these limitations, the GDS shows promise and, after further research, may be useful to clinicians and researchers.

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