1-1-2005

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The Validity of the Brief Version of the Fear of Negative Evaluation Scale

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Paper under review with Journal of Anxiety Disorders

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Abstract

The Fear of Negative Evaluation Scale (FNE; Watson & Friend, 1969) is a commonly used measure of social anxiety. A brief version of the scale (FNEB) is available for convenient administration. Despite being widely advocated for use, the psychometric properties of the FNEB have not been evaluated with clinically anxious samples. The present study addressed the reliability and validity of the FNEB in a clinical sample of individuals with either social phobia (n = 82) or panic disorder (n = 99) presenting for treatment. Factor analysis supported the construct validity of the FNEB. The validity of the FNEB was further demonstrated through significant correlations with social avoidance and depression, and non-significant correlations with agoraphobic avoidance and demographic variables. The scale obtained excellent inter-item reliability (α = .97) and two-week test-retest reliability (r = .94). Discriminant function analysis also supported the validity of the FNEB. For example, individuals with social phobia scored significantly higher on the FNEB than those with panic disorder and a group of nonpsychiatric community controls (n = 30). The FNEB was sensitive to pre to post-CBT changes in both social anxiety and panic disorder, and changes on the FNEB correlated significantly with other measures of treatment responsiveness, such as reductions in somatic arousal, depression, and other anxiety symptomatology. These research findings strongly support the validity of the FNEB and its clinical utility as an outcome measure in social anxiety treatment.

The Validity of the Brief Version of the Fear of Negative Evaluation Scale

The Fear of Negative Evaluation scale (FNE; Watson & Friend, 1969) is a widely used measure that assesses various dimensions of social-evaluative anxiety (e.g., distress, avoidance, expectations). A brief version of the FNE scale (FNEB; Leary, 1983a) is available that contains 12 items from the original 30 item-scale, with responses based on a 5-point Likert metric rather than the original true-false format. Although the validity of the FNE is well established (e.g., Corcoran & Fischer, 2000; Friend & Gilbert, 1973; Smith & Sarason, 1975), research evaluating the empirical properties of the FNEB is limited. In fact, the utility of the FNEB for clinical use has yet to be demonstrated, despite its broad advocacy for use (e.g., Corcoran & Fischer, 2000). Evaluation of the FNEB in clinical samples is particularly important since it was developed and normed using college student samples. The present study addresses this deficiency by examining the reliability and validity of the FNEB in a clinically anxious sample.

The FNE Scale

Watson and Friend (1969) developed the FNE concurrently with the Social Avoidance and Distress scale (SAD) to assess individuals' experience of distress and discomfort in interpersonal interactions. The SAD was designed to measure the experience of distress in and resultant avoidance of social situations, whereas the FNE was developed to measure apprehension about negative evaluation (Ammerman, 1988). Watson and Friend (1969) defined fear of negative evaluation as "apprehension about others' evaluations, distress over their negative evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively" (p. 449). Thus, the construct of fear of negative evaluation describes broad social-evaluative anxiety (e.g., public speaking, going on a date) and the FNE assesses

individual differences in this variable. The FNE was developed and standardized with a college population and is one of the most widely used measures of social anxiety (McNeil, Reis, & Turk, 1995). The FNE contains 30-items and employs a true-false response format. The content of the items on the FNE tap individuals' expectations of being negatively evaluated by others (e.g., "If someone is evaluating me I tend to expect the worst"), looking foolish, and making a bad impression on others.

The psychometric properties of the FNE have been supported through numerous studies with undergraduate samples. Internal reliability is excellent (Cronbach's alpha = .94 – .98) and one-month test-retest reliability ranges from .78 to .94 (Watson & Friend, 1969). Concurrent validity of the FNE was supported through significant correlations with Taylor's Manifest Anxiety Scale and the Social Approval subscale of Jackson's Personality Research Form (Watson & Friend, 1969). More recent support for the validity of the FNE was established through significant positive correlations with measures of anxiety symptomatology, various personality measures (e.g., social approval, locus of control; Corcoran & Fischer, 2000), and a negative correlation with self-acceptance (Durm & Glaze, 2001). Several experimental studies have further compared individuals who score high versus low on the scale (utilizing median splits) to evaluate the criterion-predictive validity of the FNE. Compared to low FNE scorers, high FNE scorers were found to avoid potentially threatening social comparisons (Friend & Gilbert, 1973), feel worse about negative evaluations (Smith & Sarason, 1975), experience more nervousness in evaluative situations (Watson & Friend, 1969), be more concerned with making good impressions on others (Leary, 1983b), and display a bias towards identifying others' facial expressions as negative (Winton, Clark, & Edelmann, 1995).

The empirical properties of the FNE have also been investigated with clinical samples. The FNE has been found to correlate significantly with measures of anxiety, depression, and general distress among several samples of individuals with social phobia (Cox, Swinson, & Direnfeld, 1998; Turner, McCanna, & Beidel, 1987). In a public speaking study (Rapee & Lim, 1992), the FNE was a significant predictor of discrepancies between self- and observer-ratings of performance for individuals with social phobia, who rated their own performance of poorer quality. Treatment-outcome studies have demonstrated that the FNE is one of the most sensitive measures for detecting treatment changes in cognitive behavioural therapy (CBT) for individuals with social phobia (Cox et al., 1998; Heimberg et al., 1990).

The Brief Version of the FNE Scale

Leary (1983a) developed a brief version of the FNE (FNEB) that is convenient for quick and repeated administrations. On this questionnaire, respondents rate the degree to which each of 12 statements applies to them on a 5-point Likert scale (1 = not at all characteristic of me; 5 = extremely characteristic of me). Total scores range from 12 to 60. The items selected for inclusion in the FNEB had satisfactory item-total correlations with the original scale, ranging from .43 to .75 (Leary, 1983a). The brief version of the scale also correlates highly with the original scale (r = .96; Leary, 1983a; Westra & Stewart, 2001) and the reliability of the FNEB has been established using nonclinical samples. A high level of internal consistency was obtained for the items comprising the FNEB (α = .90) and a test-retest reliability coefficient of .75 was found over a 4-week interval (Leary, 1983a). The validity of the FNEB was supported through significant correlations with the SAD (Watson & Friend, 1969) and the Interaction Anxiousness Scale (Leary, 1983b). Moreover, after engaging in a conversation, respondents' scores on the FNEB correlated negatively with the degree to which they thought they made a good impression

on others and correlated positively with the degree to which they were bothered by an unfavorable evaluation from others (Leary, 1983b). This finding provides evidence for the criterion-predictive validity of the FNEB.

It is apparent from the previous research that the FNEB has admirable preliminary empirical properties. However, it is important to point out that such investigations have utilized undergraduate/college student samples, rather than evaluating social anxiety among clinical populations of anxiety disorder patients. In fact, normative data for interpreting the FNEB is only available for college students at present (mean = 35.7, SD = 8.1; Leary, 1983a). Information on the norms, reliability, and validity of the FNEB with clinically anxious populations is vital for assessing the degree to which the scale is relevant for clinical practice. Investigations of the FNEB as a measure of social phobia seem particularly important, given that the scale was designed for use with socially anxious individuals (Ammerman, 1988).

Present Study

The purpose of this study was to evaluate the psychometric properties of the FNEB in a clinically anxious sample. The inter-item reliability and validity of the FNEB were addressed in two clinical samples: individuals with social phobia and those with panic disorder (with and without agoraphobia). Concurrent and discriminant validity were examined by evaluating relationships with other common measures of anxiety disorder and related symptomatology. Discriminant validity was also addressed by examining the ability of the FNEB to differentiate between individuals with social phobia, those with panic disorder (with and without agoraphobia), and a nonanxious community sample. The sensitivity of the FNEB for detecting treatment changes in cognitive behavioural therapy (CBT) among individuals with social phobia and panic disorder was further evaluated. The criterion validity was assessed by examining the

relationships between pre- to post-treatment changes on the FNEB with other measures of anxiety.

Method

Participants. One hundred and eighty one participants (117 females and 64 males) who completed a group CBT program for anxiety management participated in the study. The participants were recruited from an anxiety and affective disorder clinic of a large teaching hospital in Canada. Individuals were selected for inclusion in the study based on Structured Clinical Interviews for Diagnosis – Version IV (Spitzer, Williams, & Gibbon, 1994). Eighty-two individuals met DSM-IV (American Psychiatric Association, 1994) diagnostic criteria for social phobia and 99 met criteria for panic disorder with (n = 64) or without agoraphobia (n = 35). The proportion of males and females, education level, and age of participants were equivalent across the diagnostic groups. Participants meeting diagnostic criteria for both panic disorder and social phobia were excluded from the study in order to achieve pure diagnostic groups for comparative analyses. Education was assessed categorically: 33% did not complete high school; 21% graduated high school; 46% achieved some post-secondary education. The age of participants ranged from 17 to 68 years, with a mean age of 38 years for the sample. The majority of participants (77%) were taking anxiolytic medication, with 23% using a benzodiazepine, 29% using an antidepressant, and 25% using both a benzodiazepine and antidepressant.

A nonanxious sample of adults was also recruited for the study. Participants were thirty individuals (20 females and 10 males) from a mid-sized urban community in Canada. The community sample reported a significantly higher level of education than the clinical sample. Categorical assessment of the level of education among participants indicated: 6% did not

complete high school; 37% graduated high school; 57% achieved some post-secondary education. The age of participants ranged from 20 to 49, and the mean age for the sample was 33.

Measures. The Fear of Negative Evaluation Scale–Brief version (FNEB; Leary, 1983a) contains 12-items to which respondents rate the degree to which each statement applies to them on a 5-point Likert scale (1 = not at all characteristic of me; 5 = extremely characteristic of me).

The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988) is a 21-item self-report measure that assesses the severity of anxiety symptomatology. This measure utilizes a 4-point Likert scale (0 – 3) for ratings, with total scores ranging from 0 to 63 (Beck & Steer, 1990). Excellent internal reliability has been demonstrated for the BAI (α's range from .85 to .93 (Beck, Epstein, Brown, & Steer, 1988; Beck & Steer, 1990) and a test-retest reliability coefficient of .83 was obtained over a 5-week interval (de Beurs, Wilson, Chambless, Goldstein, & Feske, 1997). Numerous studies have supported the validity of the BAI with clinical samples (e.g., Beck et al., 1988; Kabacoff, Segal, Hersen, & Van Hasselt, 1997) and demonstrated its sensitivity for detecting treatment responsiveness (e.g., de Beurs et al., 1997).

The Panic Attack Questionnaire Revised (PAQR; Cox, Norton, & Swinson, 1992) is a brief self-report measure that assesses panic frequency. The PAQR provides a description of a panic attack and then asks respondents to indicate how many panic attacks they have experienced 1) in the last week, 2) the last month, and 3) the last year. Research has demonstrated the utility of the PAQR for identifying individuals who experience panic attacks (Norton, Cox, & Malan, 1992; Norton, Pidlubny, & Norton, 1999) and studying the components of panic attacks in clinical samples (Cox, Endler, & Swinson, 1995). In the present study, the instrument was scored for the number of panic attacks participants experienced in the last week.

The Anxiety Sensitivity Index (ASI; Peterson & Reiss, 1992) is a 16-item questionnaire designed to assess fear of anxiety-related physical sensations (e.g., heart-racing, dizziness). Respondents rate each item on a 5-point Likert scale (0 = very little; 4 = very much) and total scores range from 0 to 64. The ASI has demonstrated adequate internal and test-retest reliability (Peterson & Riess, 1992; Taylor, Koch, & McNally, 1992) and satisfactory criterion and construct validity (Peterson & Helibronner, 1987; Peterson & Riess, 1992). Scores on the ASI have been found to predict the development of uncued panic attacks (Schmidt, Lerew, & Jackson, 1999) and the onset of panic disorder for up to 3 years (Maller & Reiss, 1992). The ASI is also sensitive to CBT treatment changes for panic disorder (Hazen, Walker, & Eldridge, 1996) and long-term anxiety control (Jones & Barlow, 1991).

The Beck Depression Inventory - II (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report measure for assessing the presence and severity of depression. The scale utilizes a multiple choice format (0 - 3) with total scores ranging from 0 to 63. The measure is used extensively in research and has demonstrated admirable psychometric properties (Beck et al., 1996; Dozois, Dobson, & Ahnberg, 1998).

The Social Avoidance (FQ-S) and Agoraphobic Avoidance (FQ-A) subscales of the Fear Questionnaire (FQ; Marks & Matthews, 1979) each contain 5 items to describe anxiety/phobia-related situations. Respondents rate their degree of avoidance on a 9-point Likert scale. Satisfactory internal reliability (Coefficient α's range from .71 to .86) has been found for the subscales in clinical and nonclinical samples (Oei, Moylan, & Evans, 1991; Osman, Barrios, Osman, & Markway, 1993). Excellent test-retest reliability coefficients were obtained for the FQ-S and FQ-A over a 3 to 16 week period (*r*s range from .84 to .90; Michelson & Mavissakalian, 1983). Research has supported the validity of the FQ (e.g., Cox, Swinson, &

Shaw, 1991; Gillis, Haaga, & Ford, 1995; Osman, Gutierrez, Barrios, Kopper, & Chiros, 1998; Turner, Beidel, & Dancu, 1996) and shown the measure to be sensitive to treatment changes for panic disorder (Marks & Matthews, 1979).

Procedure. Informed consent was obtained from participants prior to the completion of self-report measures. Participants completed the self-report instruments described above pre- and post-CBT group treatment. The 8-session group CBT was provided to a heterogeneous group of individuals suffering from various anxiety disorders (social phobia, panic disorder, generalized anxiety disorder). The CBT program was comprised of 2.5 hour bi-weekly sessions and involved diverse treatment techniques of exposure (situational and interoceptive), reattribution of somatic sensations, coping self-talk, cognitive restructuring, problem-solving, anxiety psychoeducation, and relaxation and was based on standard CBT protocols (cf. Barlow & Craske, 1994; Beck & Emery, 1985; Craske, Barlow, & O'Leary, 1992).

Results

Factorial Validity

Principal components factor analysis of the FNEB was performed on a subset of the original sample for whom item data were available (n = 107)[1]. This analysis revealed only one factor with an eigenvalue greater than unity (the first 5 values were 8.83, 0.64, 0.45, 0.38, and 0.35). This factor accounted for 74% of the variance in participants' responses. The factor loadings ranged in magnitude from .76 to .90.

[1] Forty-three individuals met diagnostic criteria for social phobia and 45 met criteria for panic disorder , and 19 participants had comorbid panic disorder and social phobia (70 females and 37 males). There were no systematic differences on symptom or sociodemographic variables between those individuals for whom item data were retrievable and those individuals for whom these data were not available.

Concurrent and Discriminant validity

Correlations were calculated between the various anxiety self-report measures included in the present study and the FNEB (see Table 1). Support for the concurrent validity of the FNEB was demonstrated by significant correlations with the Social Avoidance subscale of the FQ (FQ-S) and the BDI-II. However, a significant correlation also existed between the BDI-II and the FQ-S and given such, partial correlations were conducted between these variables. The correlation between the FQ-S and the FNEB remained significant after controlling for the influence of the BDI-II (ρr = .48, p < .001) whereas a significant correlation was not obtained between the BDI-II and FNEB after controlling for FQ-S (ρr = .11). This finding suggests that the relationship between the BDI-II and the FNEB was accounted for by the shared variance with the FQ-S. Moreover, while the FNEB correlated significantly with social avoidance, a significant correlation was not obtained with agoraphobic avoidance, thereby providing evidence for the discriminant validity of the FNEB. As expected, FNEB scores did not correlate significantly with measures of panic (i.e., panic frequency, anxiety sensitivity). The discriminant validity of the FNEB was further supported through nonsignificant correlations of the FNEB with the theoretically unrelated variables of education (r = .05, p = ns) and age (r = -.11, p = ns).

The discriminant validity of the FNEB was also assessed by comparing the scores of individuals with social phobia to those with panic disorder and to a community sample of nonpsychiatric controls (n = 30). Table 2 displays the means and standard deviations of participants' scores on the FNEB for each of these groups. Two separate discriminant function analyses (DFA) were conducted to determine whether the FNEB significantly differentiated among groups of individuals with social phobia, panic disorder or no psychiatric difficulties. The FNEB differentiated significantly among the three groups, F (2,206) = 59.99, p < .001 (Wilks' λ

= .63). A second DFA revealed that the FNEB also discriminated significantly between individuals with social phobia and those with panic disorder, $F(1, 177) = 55.15$, $p < .001$ (Wilks' $\lambda = .76$). The overall correct classification rate in this analysis was 70% (Sensitivity = 74%; Specificity = 67%).

Reliability

Inter-item reliability of the FNEB was assessed among a subsample of participants on whom individual item data were available (n = 107; see footnote #1). Cronbach's alpha revealed that the FNEB had exceptional internal consistency ($\alpha = .97$). The test-retest correlation (n=107), with a 2-week inter-administration interval was .94, $p<.001$.

Sensitivity to Treatment Changes

The ability of the FNEB to detect pre- to post-treatment changes among individuals with social phobia was also evaluated. A paired t-test was conducted to compare the mean FNEB scores of individuals with social phobia pre CBT (Mean = 51.5, SD = 7.3) and post CBT (Mean = 39.1, SD = 11.7). This difference was statistically significant, t (80) = 9.77, $p < .001$, and yielded a treatment effect size of 1.69[2]. A significant paired t-test was also evident for panic disorder participants from pre (Mean = 40.4, SD = 12.5) to post CBT (Mean = 32.7, SD = 12.3), t (85) = 7.92, $p < .001$, with a treatment effect size of 0.63.

Criterion Validity

The criterion validity of the FNEB was evaluated by examining the correlations between pre- to post-treatment changes in FNEB scores with those of other outcome measures included in the present study. Table 3 displays the correlations among changes on each of the outcome measures included in the present study for participants with social phobic. FNEB

[2] Effect size was defined as $(M_{pre} - M_{post})/ SD_{pre}$.

change scores correlated significantly and positively with changes on the BAI, ASI, BDI-II, and both the Social Avoidance and Agoraphobic Avoidance subscales of FQ.

Discussion

The results of this study strongly supported the psychometric properties of the FNEB in a clinically anxious sample of individuals presenting for treatment. Significant correlations were obtained between the FNEB and the Social Avoidance subscale of the Fear Questionnaire. This finding is consistent with previous research demonstrating a positive relationship between the FNEB and FNE scales with measures of social anxiety (Corcoran & Fischer, 2000; Leary, 1983b), and provides preliminary evidence for the construct validity of the FNEB in a clinical sample. In particular, the significant relationship observed between the FNEB and social avoidance (FQ-S) suggests that the measure taps social anxiety, as originally intended (Watson & Friend, 1969). Moreover, while the FNEB correlated significantly with social avoidance, a significant correlation was not obtained with agoraphobic avoidance. These patterns of correlations provide evidence for the discriminant validity of the FNEB to distinquish between social avoidance and agoraphobic avoidance. However, contrary to previous research findings (Cox, Swinson, & Direnfeld, 1998; McWilliams, Stewart, & MacPherson, 2000; Turner, McCanna, & Beidel, 1987), the FNEB did not correlate strongly with other measures of anxiety symptomatology included in the study (i.e., BAI, ASI, PAQR). Differences in the level of anxiety-related comorbidity among individuals included in prior investigations may account for this discrepancy. The present study used “pure” clinical diagnostic groups (i.e., those with comorbid panic disorder/social phobia were excluded), permitting a more specific assessment of the anxiety symptomatology experienced by individuals with social phobia. Thus, the present

findings suggest the FNEB is specific to social anxiety and further research is necessary to clarify its relationship with other indices of anxiety.

In further support of the discriminant validity of the FNEB, individuals with social phobia scored significantly higher on the scale than both a sample of individuals with panic disorder and a nonanxious sample of adults from the community. Individuals with panic disorder also scored significantly higher on the FNEB than the community sample. This finding supports the utility of the FNEB for differentiating clinically significant levels of social anxiety from those reported in a normative sample. Specifically, discriminant function analysis indicated that the FNEB significantly differentiates between individuals with social phobia versus panic disorder, which contrasts previous research findings with the original FNE scale (Turner, McCanna, & Beidel, 1987). Turner et al. (1987) found that FNE scores were significantly higher for individuals with social phobia versus simple phobia, but not among individuals with panic disorder and those with generalized anxiety disorder. However, it is possible that the presence of comorbid social phobia contaminated the findings and led to higher levels of social anxiety across the clinical diagnostic groups. The use of diagnostically "pure" clinical groups (social phobia versus panic disorder) in the present study permits a closer assessment of the discriminant utility of the FNEB. Although empirical data are necessary to examine this issue directly, the FNEB may discriminate among clinical diagnostic groups better than the original FNE scale.

The FNEB scores obtained for the clinical groups and community sample can also be compared with previous normative data. Leary (1983a) reported a mean of 35.7 (SD = 8.1) with a general undergraduate student sample, which is lower than the mean demonstrated for the clinical samples and higher than our nonanxious community sample. Therefore, available normative data for the FNEB suggest that scores on the scale can be organized from highest to

lowest as follows: social phobic participants, panic disorder participants, undergraduate students, and nonanxious adults from the community. The differences in scores on the FNEB across populations highlights the discriminant ability of the measure for detecting clinically significant levels of social anxiety. Findings that both the social phobia and panic disorder samples scored higher on the FNEB than the normative comparisons groups is consistent with previous work suggesting that elevated levels of social anxiety are observed in other anxiety disorders (Heimberg, Hope, Rapee, & Bruch, 1988).

The FNEB also demonstrated excellent internal consistency in this study. The reliability coefficient obtained is comparable to levels reported for the original 30-item FNE scale (Watson & Friend, 1969) and previous research with the FNEB (Leary, 1983a). Previous reliability research was conducted with undergraduate student samples, and thus, the present findings suggest that the homogeneity of FNEB items exists when utilized with clinical samples. This homogeneity is consistent with the results of our factor analysis, suggesting that a unidimensional structure most parsimoniously accounts for the variance in FNEB responses. Additionally, the two-week test-retest reliability of the FNEB was excellent, suggesting that scores on this measure are highly stable in the absence of treatment.

The sensitivity of the FNEB for detecting treatment changes was supported through findings of a significant reduction in FNEB scores from pre to post CBT for both social phobic and panic disorder participants. However, a larger treatment effect size was obtained for individuals with social phobia compared to individuals with panic disorder. This finding indicates that the FNEB is particularly sensitive for detecting treatment responsiveness among individuals with social phobia, consistent with previous findings for the original FNE scale (e.g., Cox, Swinson, & Direnfeld, 1998). However, the results contrast a treatment-outcome study

(Taylor, Woody, McLean, & Koch, 1997) demonstrating small treatment effect sizes on the FNEB for individuals with social phobia compared to other anxiety measures such as the Social Phobia and Anxiety Inventory (SPAI-SP; Turner, Beidel, Dancu, & Stanley, 1989). Taylor et al. (1997) obtained a treatment effect size of 0.09 for the FNEB following 8-sessions of therapy, which is significantly lower than the effect size obtained in the present study. It may be possible that differences in pre-treatment mean scores on the FNEB accounted for this discrepancy. Specifically, higher pre-treatment means in the present sample for individuals with social phobia may have accounted for the large treatment effect size being obtained.

Finally, evidence for the criterion validity of the FNEB was observed through correlations between changes in FNEB scores and other outcome measures included in the present study. FNEB change scores for individuals with social phobia were found to correlate significantly with the BAI, ASI, BDI-II, and both the Social Avoidance and Agoraphobic Avoidance subscales of the FQ. Previous research has shown that these measures of anxiety symptomatology are sensitive to treatment responsiveness among individuals with various anxiety disorders (e.g., BAI; de Beurs et al., 1997). The present results indicate that reductions in scores on the FNEB are related to decreases in other measures of anxiety symptomatology from pre- to post-treatment. Thus, the FNEB appears to have potential utility for assessing pre- to post-CBT treatment changes for those with social phobia.

Limitations and Future Directions

There are several limitations that warrant mention. First, the clinical sample of social phobic and panic disorder participants were not randomly selected from the general population but rather consisted of individuals presenting for treatment. The selection process may therefore limit the generalizability of the results, as inferences may not be able to be made to the larger

population of individuals with anxiety. Further research is necessary to replicate the present findings and provide additional evidence of the psychometric properties of the FNEB. In particular, inclusion of other measures of social anxiety would allow for a more thorough examination of the concurrent validity of the FNEB. Investigations of clinically anxious populations in the community and those presenting for treatment are particularly necessary for examining the clinical utility of the measure.

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Table 1

Inter-Correlations of Measures

Measure	FNEB	BAI	PAQR	ASI	BDI-II	FQ-S	FQ-A
FNEB	—						
BAI	.16*	—					
PAQR	.02	.50**	—				
ASI	.13	.57**	.38**	—			
BDI-II	.32**	.54**	.38**	.38**	—		
FQ-S	.56**	.25**	.10	.10	.40**	—	
FQ-A	-.02	.33**	.43**	.43**	.30**	.35**	—

Note. FNEB: Fear of Negative Evaluation – Brief Version; BAI: Beck Anxiety Inventory; PAQR: Panic Attack Questionnaire Revised; ASI: Anxiety Sensitivity Index; BDI-II: Beck Depression Inventory – II; FQ-S: Fear Questionnaire – Social Phobia subscale; FQ-A: Fear Questionnaire – Agoraphobic avoidance. Square-root transformations were performed for PAQR scores due to the skewness of this variable.
*p<.05, ** p < .01

Table 2

Descriptive Statistics for the FNEB and Mean Comparisons For Participant Subgroups

Participant Group	*N*	Mean	Standard Deviation	Minimum	Maximum
Social Phobia	82	51.5	7.3	30.0	60.0
Panic Disorder	99	39.8	12.5	12.0	60.0
Community Sample	30	29.2	8.2	16.0	52.0

Table 3

Correlations of Pre- to Post-CBT Change Scores among Outcome Measures

Measure	FNEB	BAI	PAQR	ASI	BDI-II	FQ-S	FQ-A
FNEB	—						
BAI	.38**	—					
PAQR	.18	.31*	—				
ASI	.64**	.53**	.35**	—			
BDI-II	.47**	.49**	.22*	.59**	—		
FQ-S	.53**	.46**	.15	.58**	.44**	—	
FQ-A	.31*	.31**	.08	.63**	.45**	.57**	—

Note. FNEB: Fear of Negative Evaluation – Brief Version; BAI: Beck Anxiety Inventory; PAQR: Panic Attack Questionnaire Revised; ASI: Anxiety Sensitivity Index; BDI-II: Beck Depression Inventory – II; FQ-S: Fear Questionnaire – Social Avoidance subscale; FQ-A: Fear Questionnaire – Agoraphobic avoidance. Square-root transformations were performed for PAQR scores due to the skewness of this variable.
* $p < .05$; ** $p < .01$