

Validity of the Revised Brief Fear of Negative Evaluation Scale

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Introduction

- The Brief Fear of Negative Evaluation Scale (BFNE; Leary, 1983) is a self-report measure designed to assess fear of negative evaluation
- Fear of negative evaluation is a characteristic feature of social anxiety disorder (Rapee & Heimberg, 1997)
- Investigators have expressed concern regarding the psychometric properties of the reverse-worded items of the BFNE (Carleton, McCreary, Norton, & Asmundson, in press; Rodebaugh et al., 2004; Weeks et al., in press)
- Carleton et al. (in press a) and Collins, Westra, Dozois, and Stewart (2005) recommended the reverse-worded items be straightforwardly reworded rather than omitted to maintain scale sensitivity
- Initial analyses supported the use of the BFNE with the revised items (BFNE-II), however, convergent validity remained to be determined
- The purpose of this study was to examine the reliability and validity of the BFNE-II, a version of the BFNE incorporating straightforwardly reworded revisions of the original items (Taylor, 1993)

Method

- Participants included 322 undergraduate students from the University of Regina [79 men aged 18 to 33 ($M = 21.2$; $SD = 3.4$) and 243 women aged 18 to 50 ($M = 21.2$; $SD = 5.1$)] who participated in a large questionnaire-based study approved by the University Research Ethics Board
- Participants completed a series of self-report measures including:
 - Brief Fear of Negative Evaluation scale, version 2 (BFNE-II; Carleton et al., in press a)
 - Anxiety Sensitivity Index (ASI; Reiss & McNally, 1985)
 - Illness/Injury Sensitivity Index-Revised (ISI-R; Carleton, Park, Asmundson, in press b)
 - Social Interaction Anxiety Scale (SIAS; Mattick & Clark, 1998) and the Social Phobia Scale (SPS; Mattick & Clarke 1998)
 - Rosenberg Self-Esteem Scale (SES; Rosenberg, 1989)
- Confirmatory factor analysis (CFA) was used to assess and improve model fit for the BFNE-II
- Correlational analyses evaluated the convergent and discriminant validity of the BFNE-II with measures related to social anxiety and other fears

Results

- The 12-item unitary model resulted in reasonably good fit indices, $\chi^2(54)=223.71$, $p < .01$, CFI = 0.96, RMSEA = 0.11, SRMR = 0.03, ECVI = 0.93
- Items correlating at less than .50 on two or more of the associated measures were removed (Table 1), resulting in a significantly improved fit, $\chi^2(54)=223.71-53.69=170.02$, $p < .01$, relative to 12-item model; $\chi^2(27)=53.69$, $p < .01$, CFI = 0.99, RMSEA = 0.05, SRMR = 0.02, ECVI = 0.27 (90% CI = 0.22–0.07)
- To ensure further item reductions would not improve model fit, each item was removed one at a time, and the remaining sets of 8 were each tested for model fit
- Removing item 4 resulted in significantly improved fit indices, $\chi^2(20)=53.69-19.85=33.84$, $p < .05$; $\chi^2(20)=19.85$, $p = .47$, CFI = 1.00, RMSEA < 0.01, SRMR = 0.01, ECVI = 0.16 (90% CI = 0.16–0.21)
- Further item reductions did not result in significant improvements to model fit. The 8-item BFNE-II was highly correlated ($r = .99$, $p < .001$) with the sum total of all 12 items
- Internal consistencies for the 8-item ($\alpha = .96$) and 12-item ($\alpha = .96$) BFNE-II were excellent
- The 8- and 12-item BFNE-II demonstrated good convergent and discriminant validity (Table 2)

Discussion

- A unitary factor structure was supported, with the most replicable factor structure resulting from using 8 of 12 items
- Items included in the 8-item model are not exclusively the revisions of reverse-worded items from the original BFNE (Leary, 1983)
- Correlations with measures related to social anxiety were comparable for both the 8- and 12-item versions
 - Divergent correlations with measures of illness and injury provided support for discriminant validity
- There was an unexpected moderate correlation between the 8-item BFNE-II and the ASI-Cognitive concerns subscale, which was slightly higher than the 12-item BFNE
- These findings support the utility of the revised items and the validity of the BFNE-II as a measure of fear of negative evaluation
- Further research should continue to validate the BFNE-II using additional related measures and clinical and non-clinical populations

Table 1. BFNE Item Correlations with Related Measures

	SPS	SIAS	SES
1. I worry about what other people will think of me even when I know it doesn't make any difference. †	0.47	0.52	0.42
2. It bothers me when people form an unfavourable impression of me. †	0.47	0.50	0.34
3. I am frequently afraid of other people noticing my shortcomings.	0.50	0.55	0.47
4. I worry about what kind of impression I make on people. †	0.50	0.52	0.37
5. I am afraid that others will not approve of me.	0.58	0.60	0.43
6. I am concerned about other people's opinions of me.	0.55	0.60	0.45
7. When I am talking to someone, I worry about what they may be thinking about me.	0.52	0.57	0.41
8. I am usually worried about what kind of impression I make.	0.55	0.59	0.47
9. If I know someone is judging me, it tends to bother me.	0.53	0.52	0.43
10. Sometimes I think I am too concerned with what other people think of me. †	0.44	0.51	0.34
11. I often worry that I will say or do wrong things.	0.58	0.63	0.41
12. I worry about what other people will think of me even when I know it doesn't make any difference.	0.54	0.53	0.39

†Removed from final BFNE-II repertoire

Table 2. BFNE-II Correlations with Related Measures

	SPS	SIAS	SES	ISI-R		SOM	ASI COG	SOC	BFNE-II 12-Item
				ILL	INJ				
SIAS	0.70	-							
SES	0.43	0.40	-						
ISI-R-ILL	0.36	0.25	0.22	-					
ISI-R-INJ	0.35	0.19	0.16	0.67	-				
ASI-SOM	0.49	0.42	0.30	0.56	0.45	-			
ASI-COG	0.64	0.57	0.42	0.39	0.31	0.66	-		
ASI-SOC	0.51	0.50	0.25	0.38	0.32	0.59	0.47	-	
12-Item BFNE-II	0.60	0.64	0.48	0.38	0.29	0.46	0.47	0.55	-
8-Item BFNE-II	0.62	0.65	0.49	0.38	0.29	0.47	0.51	0.54	0.99