

Validity of the Revised Brief Fear of Negative Evaluation Scale

Kelsey C. Collimore, B.H.Sc., R. Nicholas Carleton, M.A., and Gordon J. G. Asmundson, Ph.D.
Anxiety and Illness Behaviour Laboratory, University of Regina

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		ASI	BFNE-II		
				ILL	INJ	COG	SOM	SOC	12-Item
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