

Peer-Reviewed Letters

QUALITY OF LIFE FOLLOWING COGNITIVE BEHAVIORAL TREATMENT FOR SOCIAL ANXIETY DISORDER: PRELIMINARY FINDINGS

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There has been little research on quality of life, a multidimensional construct that encompasses psychological functioning, social functioning, physical symptoms, and age-appropriate functioning [Aaronson et al., 1988], among individuals with social anxiety disorder. However, the enormous effect of social anxiety disorder on perceived physical and emotional health, occupational functioning, educational achievement, and interpersonal relationships [Schneier et al., 1994; Wittchen et al., 1999] suggests the importance of this area of study. We present data that follows up on the finding of Safren et al. [1997] that socially anxious patients were significantly improved in self-perceived quality of life immediately following cognitive-behavioral group therapy (CBGT). Two hypotheses were tested: 1) CBGT leads to significant improvements in subjectively perceived quality of life from pre- to post-treatment and 2) these gains are maintained or additional improvement occurs during the follow-up period. We also examined the relationship between quality of life and symptom severity at pre-treatment, post-treatment, and 6-month follow-up assessments.

The sample consisted of 25 patients (age, $M = 35.80$ years, $SD = 11.73$; 60% males) with a principal diagnosis of social anxiety disorder/social phobia as assessed by the Anxiety Disorders Interview Schedule-Revised [ADIS-R; DiNardo and Barlow, 1988] or the Anxiety Disorders Interview Schedule for DSM-IV-Lifetime Version [ADIS-IV-L; DiNardo et al., 1994]. All patients received a 12-week course of CBGT for social anxiety [Heimberg and Becker, 2001]. Twelve patients were also studied by Safren et al. [1997] but no follow-up data were included in that report.

At each post-treatment assessment, an independent assessor completed a seven-point rating of change from baseline. Patients rated as markedly or moderately improved (ratings of 1 or 2) were classified as treatment responders. The assessor also completed a severity of illness item (1 = normal, 7 = among the most severely ill patients), the International Personality Disorder Examination—Avoidant Personality Disorder (APD) Module [Loranger, 1995], and the Liebowitz [1987] Social Anxiety Scale at all assessment points. Self-report measures of social

anxiety were the Social Interaction Anxiety Scale and the Social Phobia Scale [Mattick and Clarke, 1998]. The Beck Depression Inventory [Beck et al., 1979] assessed self-reported depressive symptoms. The Quality of Life Inventory [QOLI; Frisch, 1994] served as the key measure of the importance of, and satisfaction with, 16 different domains of life (e.g., work, health, friends, community).

Sixteen patients (64%) were classified as responders and nine (36%) as non-responders. Eighteen (72%) patients met criteria for generalized social anxiety disorder, and nine (36%) patients had probable or definite APD. Mean QOLI scores were significantly lower than the mean of the nonclinical adult sample reported by Frisch [1994] ($M = 2.66$; $SD = 1.20$) at all points (Table 1). There were no significant differences in pre-treatment QOLI scores as a function of social anxiety subtype [$t(23) = 1.31$, ns]. However, patients with probable or definite APD had lower scores ($M = -0.42$, $SD = 1.21$) than patients without APD ($M = 0.87$, $SD = 1.42$) [$t(23) = 2.29$, $P = .02$].

Planned contrasts [Rosenthal et al., 2000] were used to examine our main hypotheses. First, there were significant improvements in QOLI scores from pre- to post-treatment [$t(24) = 2.87$, $P = .004$]. However, a significant change in QOLI scores from post-treatment to follow-up did not occur [$t(24) = .34$, ns], suggesting that gains were maintained but substantial additional improvements were not realized. Analysis of responders only also failed to reveal significant differences between post-treatment ($M = 0.96$, $SD = 1.78$) and follow-up QOLI scores ($M = 1.29$, $SD = 1.80$) [$t(15) = 0.97$, ns], although the means improved across time.

We also examined the relationship of the QOLI with measures of social anxiety and depressive symptoms at each assessment (Table 1). The QOLI was significantly correlated only with depression scores at pre- and post-treatment. At follow-up, however, QOLI scores were also significantly correlated with self-reported social interaction anxiety and severity of illness. The magnitude of the correlation between the QOLI and social interaction anxiety remained substantial after partialling out depressive symptoms ($r = -.59$, $P < .005$), but controlling for social interaction anxiety reduced the follow-up correlation of QOLI and depression to a trend ($r = -.39$, $P < .10$). Partialling out depressive symptoms also reduced the r with severity of illness ($r = -.36$, $P < .10$).

The current findings suggest that cognitive-behavioral treat-

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TABLE 1. Measures of Social Anxiety and Depression: Means, Standard Deviations, and Correlations With Quality of Life Inventory (QOLI) Total Scores at Each Assessment Point^a

Measure	Pretreatment			Post-treatment			Follow-up		
	M	SD	r with QOLI	M	SD	r with QOLI	M	SD	r with QOLI
QOLI	.41	1.41	n/a	1.25	1.95	n/a	1.35	1.86	n/a
IA severity of illness	4.92	.64	-.33	3.72	1.17	-.35	3.56	1.29	-.46*
Social Interaction Anxiety Scale	48.52	14.71	-.25	34.00	17.08	-.29	34.76	15.78	-.61**
Social Phobia Scale	25.68	14.74	-.13	17.40	12.71	-.08	16.60	11.27	-.26
LSAS total fear	26.96	15.62	.09	33.12	11.78	.00	26.44	12.34	-.31
LSAS total avoidance	25.20	14.13	.06	29.48	11.85	-.01	21.76	11.86	-.38
Beck Depression Inventory	11.92	8.14	-.61**	5.00	5.87	-.53**	9.17	6.99	-.49*

^aN = 25. IA, independent assessor. LSAS, Liebowitz Social Anxiety Scale.

*P < .05

**P < .01.

ment for social anxiety leads to significant and durable improvements in life satisfaction. Nevertheless, patients' QOLI scores did not approach those of nonanxious persons, which spotlighted the need for additional interventions to further improve life-satisfaction.

A diagnosis of avoidant personality disorder (although not social anxiety disorder subtype) was associated with poorer quality of life, consistent with research that suggests that patients with this personality disorder present with the most severe social anxiety and the poorest global functioning [Brown et al., 1995]. Perceived quality of life was also related to depressive symptoms at all time points. However, significant correlations with measures of social anxiety emerged only at follow-up when variability in social anxiety scores was more evident. The relationship of self-rated social interaction anxiety and quality of life remained significant when controlling for depressive symptoms. Thus both severity of social anxiety and depressed mood may contribute to patients' life satisfaction.

It is important to stress the preliminary nature of this study. These results are clearly limited by the small sample that partially overlaps with that of Safren et al. [1997]. However, we hope to emphasize the importance of assessing life satisfaction and also serve as an impetus for more systematic and comprehensive research in this area. It is widely accepted that quality of life should be a key focus of treatment. Future treatment studies should include comprehensive measures of quality of life at all assessment points, including long-term follow-ups. Significant life changes may take months, or years, to come to fruition, and long-term follow-up assessments may help clarify the nature of such changes. Furthermore, it will be important to examine what definitions of quality of life (unidimensional or multidimensional) are most useful. If a multidimensional conceptualization of quality of life is employed, it may be used to test hypotheses that concern the specific domains that will be most responsive to treatment. For example, cognitive behavioral treatments for social anxiety may be more successful at improving satisfaction with interpersonal relationships than in more existential domains.

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