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A comparison of unemployed job-seekers with and without social anxiety

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Abstract

Objective—Literature consistently demonstrates that social anxiety disorder has substantial negative impacts on occupational functioning. However, to date, no identified empirical work has focused on understanding the specific nature of vocational problems among persons with social anxiety disorder. This study examines the association between employment-related factors (i.e., barriers to employment; skills related to employment; and job aspirations) and social anxiety among a sample of adults seeking vocational rehabilitation services.

Methods—Data from intake assessments, including a screen for social anxiety disorder, of 265 low-income, unemployed adults who initiated vocational rehabilitation services in urban Michigan was examined to assess differences in barriers to employment, employment skills, job aspirations, and demographic characteristics among participants who screened positive for social anxiety disorder compared to those who did not. Bivariate and multiple logistic regression analyses were performed.

Results—Multiple logistic regression analysis revealed that greater perceived experience and skill barriers to employment, fewer skills related to social-type occupations, and less education were significantly associated with social anxiety, after adjusting for other factors. Bivariate analysis also suggested that participants who screened positive for social anxiety disorder were significantly less likely to aspire to social jobs.

Conclusions—Employment-related factors likely impacting occupational functioning were significantly different between persons with and without social anxiety problems. Identifying these differences in employment barriers, skills, and job aspirations offer potentially important functional targets for psychosocial interventions aimed at social anxiety disorder and suggest the need for vocational service professionals to assess and address social anxiety among their clients.

Social anxiety disorder is a common and debilitating condition with a lifetime prevalence of 13% in the U.S. (1). Social anxiety disorder is a fear of social or performance situations involving exposure to unfamiliar people or to possible scrutiny by others (2). The disorder is associated with diminished quality of life (3, 4) and has been linked to functional impairments in educational, social, and occupational domains (5-7).

Literature consistently demonstrates that social anxiety disorder has substantial impacts on occupational functioning (3, 8). Work-related impairments for persons with social anxiety disorder include reduced productivity and job performance (4), lowered educational attainment (3), unemployment (9), financial dependence (10), and reduced income (11). Approximately 20% of persons with social anxiety disorder reported declining a job offer or promotion due to social fears (3) and primary care patients with social anxiety disorder reported significantly greater absenteeism and reduced productivity compared to patients without psychiatric problems (12, 13). A recent longitudinal study showed that primary care patients with social anxiety disorder were over two times more likely to be unemployed than patients without social anxiety disorder and that unemployment rates and work impairments were greater among those with social anxiety disorder compared to those with other anxiety disorders or depression (14). Another longitudinal study of women receiving welfare found that social anxiety disorder was the only mental illness assessed that was associated with reduced employment over time (15). Despite its substantial impact on occupational functioning (3, 4, 8-10, 14, 15), scant attention has been paid to the *specific* nature of vocational problems in social anxiety disorder.

Increased understanding of specific employment-related impairments and other employment-related characteristics among persons with and without social anxiety disorder can reveal important intervention targets. While effective psychosocial therapy for social anxiety disorder exists, its primary benefits involve reductions in social anxiety symptoms (5, 16), often leaving occupational and other functional targets in need of further improvement (17, 18). The field of mental health has increasingly emphasized functional impairment, asserting that symptom management is not sufficient and that psychosocial treatments must also lead to improvements in functional status (19). Although existing treatments for social anxiety disorder target occupational deficits to some extent (20), data suggesting limited occupational benefits (17, 18) supports the need for treatment innovations that more fully address occupational impairments.

A limited number of cognitive behavioral therapy (CBT)-based treatments specifically designed to address vocational problems among persons with mental health conditions have been developed. These specialized treatments have been provided in vocational rehabilitation (21, 22) and mental health settings (21-23). Evidence suggests these treatments improve vocational functioning and increase employment rates. Vocationally-focused CBT interventions, whether delivered in vocational service or mental health settings, appear to have been largely informed via input from professionals and from qualitative impressions provided by unemployed persons with mental health problems (21-23). There is a paucity of quantitative research available to guide intervention designers seeking to modify existing CBT to address specific employment-related issues. It is important to note that we found no studies involving vocationally-focused CBT that were specifically designed to address social anxiety disorder although it may be among the most impactful disorders in terms of employment (3, 14, 15, 24).

The significant occupational impairments associated with social anxiety disorder (4, 8, 10, 14, 15, 24, 25) and the limited impact of current treatments on functional outcomes (19), reinforces the importance of delineating specific employment-related functional impairments among persons with social anxiety disorder. This study examines the association between employment-related factors (i.e., perceived barriers to employment; employment skills; and job aspirations) and social anxiety among a sample of unemployed, low-income adults initiating vocational rehabilitation services. Understanding work-related functional impairments associated with social anxiety disorder can inform interventions aimed at improving vocational outcomes for unemployed persons with social anxiety disorder.

Methods

Participants and Setting

Participants consisted of 265 adults seeking career services from an urban vocational service agency. Individuals completing an intake assessment between June 2010 and December 2011 were included. All procedures were approved by an Institutional Review Board.

On average, participants were 41.48 ($SD=10.86$) years old and had 11.55 ($SD=2.11$) years of education; two-thirds were male (66%; $n=175$), 85% ($n=226$) were African American. Approximately 60% ($n=163$) reported an incarceration history. The participating agency provides comprehensive programming focused on career assessment, resume construction, co-worker relationships, GED preparation, computer literacy, job placement assistance, and job coaching.

Measures

Social Anxiety Disorder—Social anxiety was assessed using the Mini-Social Phobia Inventory (Mini-SPIN; 27). Scores on this three-item inventory range from 0 to 12, with scores of 6 and above indicating probable social anxiety disorder. The Mini-SPIN, verified with the social phobia module of the Structured Clinical Interview for DSM-IV (SCID; 28),

has shown 90% efficiency in diagnosing the presence or absence of generalized social anxiety disorder (27).

When tested among a treatment-seeking sample, the Mini-SPIN demonstrated strong internal consistency for African American ($\alpha = .85$) and Caucasian ($\alpha = .84$) participants (29). Work examining the psychometric properties of the Mini-SPIN among a portion of the unemployed, mostly African American adults sampled in the current study, indicates that a score of 5 or above results in the greatest diagnostic efficiency when verified by the SCID (30). In keeping with this research, a cut-point of 5 for the presence of social anxiety is used in this analysis.

Employment Barriers—As part of the standard intake assessment, participants were asked to select perceived employment barriers from a list of 20 previously compiled by professionals at the vocational service agency. Participants could select all applicable employment barriers. This information provided an opportunity to explore differences in perceived employment barriers among participants who screened positive for social anxiety disorder and those who did not. To reduce redundancy and conceptual overlap, the dichotomously coded barriers were categorized into meaningful indices based on patterns of correlations between barriers and expert opinion of vocational rehabilitation specialists collaborating on this project. Five employment barrier categories were identified: disability-related (disabled, medical/health issues, social security-related rules); experience and skills (lack of interview skills, lack of training, lack of work experience, limited education); resources (lack of appropriate clothing, lack of equipment/tools, lack of transportation, no permanent address); criminal record; and appearance. Index scores reflected the number of individual barriers endorsed in each category. Seven original employment barriers were dropped due to infrequent endorsement or lack of conceptual relevance.

Employment Skills—Participants were asked to identify their skills related to employment from a list of 13 occupations (see Table 1) compiled by professionals at the vocational service agency. Participants could select all occupations that fit their skill set. In order to explore differences among participants who screened positive for social anxiety and those who did not, skills related to employment were classified according to the Holland Occupational Codes (31, 32). The Holland Codes classify occupations into 6 typologies of work: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. This coding scheme posits a theoretical connection between an individual's personality attributes and vocational choices. Holland Occupational Codes are widely used and have been incorporated into the U.S. Department of Labor's Occupational Information Network (O*NET), a database that provides information about occupations, worker skills, and job training requirements (33). Three vocational specialists used the O*NET classifications to categorize the employment skills in this study. The vocational specialists independently identified the primary Holland Code associated with each occupation included in the intake assessment. The independent ratings resulted in full consensus on the employment skills categories. Scores on each Holland Occupational Code indicate the number of occupations participants' endorsed as aligning with their skill set.

Job Aspirations—Participants' job aspirations were also collected at intake. Participants were asked to select their top three job aspirations from a list of 22 occupations compiled by professionals at the vocational service agency. Three vocational specialists independently categorized the job aspirations using the O*NET to identify the primary Holland Code associated with each occupation. Initial consensus was achieved for 19 of the 22 job aspirations. The vocational specialists engaged in discussion to obtain full consensus for the remaining three job aspirations. Although participants were asked to select their top three job aspirations, some selected more or fewer (mean = 3.34). To limit the effect of variation in the number of aspirations, counts were transformed to proportions of each participant's total number of aspirational endorsements.

Demographic Characteristics—Demographic variables included race (African American or non-Hispanic White), age, gender, incarceration history, and education. Literacy was also measured using the Wide Range Scale – Vocabulary portion of the United States Department of Labor Basic Occupational Literacy Test (34). This 8-item tool assesses basic vocabulary and literacy. Scores range from 0 to 8 and scores less than 3 indicate the respondent has an insufficient amount of basic reading and literacy skills.

Data Analysis

Differences in perceived employment barriers, employment skills, job aspirations, and demographic characteristics among participants with and without social anxiety were investigated. Bivariate analyses were conducted with independent t-tests for continuous variables and χ^2 tests for categorical variables. Multiple logistic regression analysis was used to identify variables significantly associated with social anxiety, after adjusting for other factors. All analyses were conducted in SPSS v. 20.

Results

Thirty-five percent of participants (n=95) screened positive for social anxiety disorder. Bivariate findings reported in Table 2 suggest significant differences on perceived employment barriers, employment skills, and job aspirations among participants who screened positive for social anxiety disorder and those who did not. Participants with social anxiety were significantly more likely to endorse experience and skill barriers to employment ($t(1,153.7)=-3.27$; $p=.001$) including limited interview skills, job training, work experience, and educational attainment. Participants screening positive for social anxiety disorder were also significantly less likely to report having skills relevant to social-type occupations ($t(1,262)=2.54$; $p=.01$); significantly more likely to aspire to realistic jobs ($t(1,263)=-2.13$; $p=.03$); and significantly less likely to aspire to social jobs ($t(1,263)=2.28$; $p=.02$).

Multiple logistic regression analysis revealed that both employment-related factors and demographic variables were associated with screening positive for social anxiety disorder, adjusting for the influence of other variables (see Table 3). Higher levels of perceived experience and skills barriers to employment, lower levels of skills relevant to social-type occupations, and less education were significantly associated with the presence of social anxiety.

Discussion

A range of cross sectional (3, 4, 8, 10, 24) and longitudinal (14, 15) studies indicate that social anxiety disorder has a particularly strong negative impact on employment compared to many other mental disorders. The high rates of social anxiety problems among this sample (35%), further underscores the relationship between social anxiety and employment problems. Given this negative relationship, it is important to ascertain *how* social anxiety undermines employment. This paper is the first to examine the relationship between social anxiety disorder and *specific* employment-related barriers, skills and aspirations. Additionally, this paper utilized a traditionally underserved, mostly minority, urban-based sample of impoverished job-seekers who are typically under-represented in studies of the functional impact of mental disorders (35, 36).

Results of the multiple regression analysis show that participants who screened positive for social anxiety disorder reported greater experience and skill barriers and bivariate comparisons found participants screening positive for social anxiety disorder were significantly more likely to report poor interview skills, limited job training and work experience, and lower educational attainment. These findings reveal occupationally-focused intervention targets. For example, lack of interview skills, an important barrier given the negative impact of poor interview skills on employment (37, 38), can be addressed in CBT by encouraging patients to repetitively expose themselves to job interviews in order to reduce fear and avoidance.

Lack of work experience was another item associated with social anxiety. An interesting question related to this experience deficit is whether it primarily relates to problems with job attainment or limited job tenure. Clinical experience suggests that both issues contribute to this finding. Additionally, clinical impressions indicate that unemployed persons with social anxiety disorder often report difficulties interacting with co-workers and supervisors in a number of domains including: reporting problems that require immediate attention; sharing work-related accomplishments; and building relationships with co-workers and supervisors. Our clinical and research-based interactions with unemployed persons with social anxiety disorder revealed that some believed that they were laid off before others not because of their job performance but because they were not well known to colleagues and supervisors.

Other important items in the experience and skill barriers category included lack of training and limited education. Education emerged as the only significant demographic variable among those assessed, with less education associated with social anxiety. These findings are not surprising given that reduced educational attainment among persons with social anxiety disorder has been found elsewhere (3, 5, 7). Our results suggest that unemployed persons with social anxiety should be carefully assessed for educational and training needs. Educational deficits are critical in today's economy given that many job openings require specialized knowledge and skills only attainable with education and training beyond high school (39). Unfortunately, attending school or other training programs presents a range of challenges for many persons with social anxiety (e.g., interacting with fellow students and instructors, asking questions in class, being observed while working, taking tests, giving presentations). Substantial improvement in these important domains for a socially anxious

person likely requires specialized psychosocial and/or pharmacotherapies that could be provided either at a vocational service center (26) or a mental health clinic.

Among the most notable findings, the multiple logistic regression analysis revealed that possessing fewer skills related to social-type occupations was significantly associated with screening positive for social anxiety disorder after adjusting for other factors. These results fit with prior research identifying social skill deficits among some persons with social anxiety disorder (40) and suggest that these individuals may benefit from social skills training (40). Deficits in skills related to social-type occupations are particularly important to identify among employment service seekers since vocational programs are likely to view employment-related social deficits as part of their scope of service. It is also important to note that job sectors requiring strong workplace-based social capabilities (e.g., healthcare, hospitality) are among the most active in the current economy (39).

Bivariate analyses suggest that socially anxious job-seekers have significantly different career aspirations than job-seekers without social anxiety. Participants screening positive for social anxiety disorder were significantly more likely to aspire to “realistic” jobs that generally require less social interaction (e.g., manufacturing) and were significantly less likely to aspire to “social” jobs that require frequent interaction with others. This situation presents a challenge for vocational service professionals as to whether to support socially anxious job-seekers' realistic job aspirations or to encourage clients to consider social jobs if they are interested in them but afraid to pursue them. Socially anxious job-seekers who want to overcome their fear and avoidance of social jobs could benefit from mental health treatment. Immersion in CBT could lead socially anxious persons to modify their aspirations to include social jobs, thereby increasing the scope of their job search. It is of note that job aspirations were not significantly associated with social anxiety disorder in the multiple logistic regression analysis, suggesting that aspirations did not independently differentiate individuals who do and do not screen positive for social anxiety disorder after accounting for their perceptions about barriers to employment, employment skills, and educational attainment.

Beyond the caution advised with respect to interpreting bivariate analyses, this study has other limitations. First, the study population is comprised of unemployed persons who were seeking vocational services. This group likely differs from unemployed persons who are able to find work without help and from those who are reluctant to use a vocational service center. Second, although this investigation involves an impoverished, African American sample that is largely unstudied with respect to social anxiety and unemployment, the findings in this study may not generalize to other unemployed groups. There is a need for further research involving a more representative sample of unemployed persons with social anxiety. Third, while this study used an established theoretical framework to construct conceptually meaningful indices of employment-related barriers, skills, and job aspirations, these measures are not standard and have not been empirically validated. However, these measures benefitted from input by three vocational experts with extensive experience who used a systematic process to develop the vocational assessment tools. There is an opportunity to utilize additional, alternative measures in future research, including qualitative interviews to assess job aspirations and direct observation strategies to assess

employment skills. Fourth, the presence of social anxiety was measured by a cutoff score on the Mini-SPIN. Ideally, structured interviews or a second self-report measure of social anxiety would have been included in the assessment of participants. However, it is important to note that prior research in this population (30) found that the cut-off Mini-SPIN score of 5 used in this study, was highly concordant with structured interview-derived social anxiety diagnoses. Fifth, psychiatric comorbidity beyond social anxiety likely contributes to the job aspiration and employment barrier-related findings in this paper and future research would benefit from investigation of these factors. However, it is important to note that prior research in a sample of impoverished, minority group members found that social anxiety was the only mental disorder among those assessed that had a significant effect on employment (15). Finally, this cross-sectional study does not provide data on the relationship between social anxiety and employment over time. Future longitudinal studies tracking employment differences between unemployed persons with and without social anxiety disorder over time would be invaluable in further understanding of the relationship between social anxiety and unemployment.

This study sets the stage for further research aimed at uncovering how social anxiety undermines employment. Studies with larger and more diverse samples, structured diagnostic interviews and refined employment skills/job aspiration measures are needed. Semi-structured interviews with unemployed job seekers would also likely yield further insights into the relationship between social anxiety and employment difficulties. These important future steps notwithstanding, the present results help to guide both vocational service and mental health professionals seeking to assist unemployed persons with social anxiety.

Conclusion

The present study reveals significant differences in a range of important employment-related factors between unemployed persons with and without social anxiety problems. These differences make conceptual sense within the context of existing literature documenting occupational impairments among persons with social anxiety disorder. The present findings have important implications for both vocational and mental health professionals seeking to assist unemployed persons with social anxiety.

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Table 1
Classification of employment skills and job aspirations by Holland Code*

Holland Code	Worker Characteristics	Employment Skills Assessed by Vocational Service Center	Job Aspirations Assessed by Vocation Service Center
Conventional	Seek organization, rule focused, systematic, conforming	sales; office; retail	administrative/clerical; sales/retail; legal
Enterprising	Seek organization, persuading, action/outcome oriented	Not assessed	management; beautician/cosmetology; customer service
Realistic	Practical, "No nonsense", dislike ambiguity	repair/maintenance; manufacturing; warehouse/labor; construction; technical; computers	installation/repair/maintenance; manufacturing/assembly; construction; warehouse; janitorial; military; transportation; law enforcement; landscaping
Social	Values interpersonal activities, warm, seek harmony	people; hospitality/restaurant; service; healthcare	healthcare technician; food service; human services; tourism/hospitality; healthcare/support services; child care; education and training

* Holland Codes also include Artistic and Investigative categories; however none of the employment skills or job aspirations assessed by the vocational service setting fell into these categories.

Table 2
Bivariate differences between participants with and without social anxiety disorder (N=265)

	No Social Anxiety Disorder (N=176)		Social Anxiety Disorder (N=95)		Test statistic	df	p
	N	%	N	%			
Demographics							
Race (proportion African American)	146	86	77	81	$\chi^2=3.40$	1	.065
Gender (proportion male)	113	67	62	65	$\chi^2=.01$	1	.933
Incarceration History (ever in jail/prison)	102	60	61	64	$\chi^2=.70$	1	.403
	M±SD		M±SD				
Age	41.7±10.5		41.1±11.6		$t=.37$	262	.714
Education (highest grade completed)	12.3±6.91		11.1±2.59		$t=1.70$	262	.090
USDOL Wide-Range Scale – Vocabulary	6.74±1.30		6.81±1.05		$t=-.04$	261	.660
Employment Barriers							
Disability Related Barriers (disabled; medical/health issues; SSI/SSDI rules)	.15±.39		.18±.57		$t=-.77$	262	.443
Experience & Skill Barriers (lack of interview skills; lack of training; lack of work experience; limited education)	.65±.99		1.15±1.29		$t=-3.27$	153.7	.001**
Resource Barriers (lack of appropriate clothing; lack of equipment/tools; lack of transportation; no permanent address)	.84±1.01		1.09±.99		$t=-1.94$	262	.053
Criminal Record	.26±.44		.29±.46		$t=-.52$	263	.601
Appearance	.13±.34		.16±.37		$t=-.64$	263	.523
Employment Skills							
Realistic (computers; construction; manufacturing; repair/maintenance; technical; warehouse/labor)	1.78±1.43		1.71±1.46		$t=.38$	262	.708
Social (healthcare; hospitality/restaurant; people; service)	1.38±1.10		1.04±.98		$t=2.54$	262	.012*
Conventional (office; retail; sales)	.57±.90		.55±.91		$t=.15$	262	.881
Job Aspirations							
Realistic (construction; installation/repair/maintenance; janitorial; landscaping; law enforcement; manufacturing/assembly; military; transportation; warehouse)	.51±.38		.62±.37		$t=-2.13$	263	.034*
Social (child care; education and training; food service; healthcare/support services; healthcare technician; human services; tourism/hospitality)	.27±.29		.19±.24		$t=2.28$	263	.023*
Conventional (administrative/clerical; legal; sales/retail)	.06±.13		.06±.14		$t=-.53$	263	.599
Enterprising (beautician/cosmetology; customer service; management)	.09±.17		.08±.16		$t=.60$	263	.549

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Table 3
Multiple logistic regression examining differences between participants with and without social anxiety disorder (N=247)

	OR	95% CI	<i>p</i>
<i>Demographics</i>			
Age	1.00	.97-1.02	.723
Race (reference: African American)	1.60	.64-3.99	.322
Gender (reference: female)	.67	.30-3.48	.333
Jail (reference: ever incarcerated)	.82	.40-1.68	.591
Education (# grades completed)	.81	.67-0.98	.030*
USDOL	1.22	.93-1.59	.156
<i>Employment Barriers</i>			
Disability Barriers	1.49	.80-2.78	.210
Experience & Skill Barriers	1.38	1.03-1.84	.032*
Resource Barriers	1.00	.74-1.37	.979
Criminal Record	.95	.44-2.01	.901
Appearance	.99	.41-2.35	.973
<i>Employment Skills</i>			
Realistic	.92	.72-1.19	.541
Social	.69	.49-0.99	.045*
Conventional	1.26	.82-1.93	.287
<i>Job Aspirations</i>			
Realistic	1.98	.35-11.2	.437
Social	.51	.07-3.82	.513
Enterprising	.47	.03-7.37	.593
Conventional	2.80	.15-51.8	.480

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