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The Prevalence and Comorbidity of Specific Phobias in College Students and Their Interest in Receiving Treatment

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While the prevalence of specific phobias and social phobias is believed to be high in the general adult population, little data exists regarding the prevalence of these fears among college students. This paper describes an epidemiological study that surveyed 813 college students regarding the severity of fears experienced toward 12 objects and situations. In addition, this study assessed for students' interest in seeking therapy for these fears at their university's counseling or mental health center. The data suggest that fears of spiders (34% of the total sample), public speaking (31%), snakes (22%), heights (18%), and injections (16%) are quite common among college students, and 18% of students are interested in receiving treatment for their fears. The paper concludes with some recommendations on how exposure-based treatments could be conducted through college counseling or mental health centers to address these potentially academic- and socially impairing problems.

KEYWORDS *exposure therapy, fears, phobias, prevalence*

Anxiety disorders are the most common class of mental illnesses in the United States. According to a replication of the National Comorbidity Survey, the lifetime prevalence of anxiety disorders is 28.8% (Kessler, Berglund, Demler, Jin, & Walters, 2005). Among these, specific phobias are very common; it has been estimated that between 11 and 12% of men and women will suffer from a specific phobia at some point in their lives

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(Robins & Regier, 1991; Kessler et al., 1994). These phobias can impair functioning and cause individuals to avoid many common situations. Fortunately, while specific phobias are quite debilitating, their treatments are usually straightforward and effective, often requiring only one to five sessions of in vivo exposure exercises (Hellström, Fellenius, & Öst, 1996; Kozak et al., 2007; Öst, 1997; Öst, Alm, Brandberg, & Breitholtz, 2001).

Unfortunately, very little is known about the prevalence of phobias in college students. Much of the information regarding the prevalence of specific fears and phobias has come from research with very specific populations, such as individuals with alcohol dependence or clients from inpatient settings (e.g. Hesselbrock, Meyer, & Keener, 1985). While undergraduates are often used as convenience samples for other forms of psychological research, few studies have investigated what kinds of fears are common in students and whether students are interested in receiving treatment for them. Nevertheless, anxiety symptoms are typically the most frequent problem presented at college counseling and mental health centers (Benton, Robertson, Wen-Chih, Newton, & Benton, 2003), and an increasing number of students are seeking help for phobias (Vye, Scholljegerdes, & Welch, 2007, pp. 6–7).

These phobias could impair students' social health and education. Depending on their particular concern, students with phobic disorders have been known to avoid classes that require public speaking or interaction with classmates and lab partners, avoid social activities like peer mixers, refrain from conversing with their neighbors and dorm suitemates, avoid large crowded classrooms where quick egresses would be difficult or embarrassing, and avoid biology, ecology, or psychology lab sections requiring direct contact with feared animals. In some cases, untreated phobic disorders can lead to academic attrition (Breslau, Lane, Sampson, & Kessler, 2008).

Fortunately, college counseling and mental health centers are in good positions to help. Most universities have a wealth of potentially therapeutic resources to which other outpatient clinics do not have access, such as large lecture halls for the treatment of public speaking anxiety, small supply rooms and narrow corridors for the treatment of claustrophobia, tall buildings and staircases for the treatment of height phobia, and a variety of reptiles, mammals, and arachnids for animal phobia treatments. Beyond the paucity of data regarding the prevalence of phobias on college campuses, even less is known about how many students suffering from these problems would actually take advantage of these treatment resources.

The present study was designed for three purposes: to (a) assess the prevalence of phobias and nonclinical fears among college students, (b) determine which fears and phobias are more likely to co-occur in this population, and (c) establish the percentage of students with pathological fears who are interested in receiving treatment.

METHODS

Participants

Eight hundred and thirteen students from a variety of undergraduate classes at a large Midwest university were surveyed. The classes surveyed included morning, afternoon, and evening sections. The students participating in the study were between the ages of 18 and 47 (mean = 19; SD = 2.3 years). Fifty-eight percent of participants were female; 42% were male. Eighty-seven percent of the participants identified themselves as non-Hispanic, Caucasian, with 6% identifying as African-American, 3% Asian or Pacific Islander, 3% Latino, and 0.1% Native American.

Procedure

During the first 10 minutes of each class surveyed, researchers introduced the study as a survey of fears experienced by students. Each student was then given an informed consent document detailing their right to participate or abstain from participation and a questionnaire form. The questionnaire contained 12 different fears observed to be common in community samples (e.g., Agras, Sylvester, & Oliveau, 1969) that could impair a student's college experience, and it asked participants to rate the degree to which they experienced each fear on a five-point Likert scale (0 = no fear, 1 = mild fear, 2 = moderate fear, 3 = significant fear, 4 = severe fear). The questionnaire also asked participants to indicate whether they were interested in receiving treatment for their fears, and if so, how many sessions they would be willing to devote to treatment. In addition, the questionnaire asked participants if they would be willing to receive treatment only if they could obtain extra credit in one of their classes. This item was included as a validity measure to rule out respondents who were not interested in receiving treatment for their own benefit. Finally, the questionnaire included opportunity for participants to write in other phobias that they had and for which they would be interested in receiving treatment.

Participants remained anonymous to the researchers. No information was gathered regarding participants' academic standing, and no personally identifiable information was solicited. Participants were free to partially answer the questionnaire or abstain from participating if they so chose; however, less than 1% of students refused to participate fully in this study.

RESULTS

The results indicated that the most prevalent fear in this sample, both in terms of total number and severity, was a fear of spiders. Thirty-four percent

of all respondents indicated they had a significant or severe fear of spiders. The second most common fear was the fear of public speaking (31% of the total sample), followed by the fear of snakes (22%), the fear of heights (18%), and the fear of receiving injections (16%) (see Table 1 for a complete list of fear prevalences). While the modal fear severity rating was zero for most objects and situations, the modal fear rating was 1 (mild fear) for snakes, spiders, insects, and public speaking, indicating that most individuals have some degree of fear toward these stimuli.

In concert with the findings of Öst (1992), fears of blood and fears of injections were highly correlated (r = .58). Sixty-three percent of participants with a significant or severe fear of blood reported a fear of injections, and 30% of participants with a significant or severe fear of injections reported a fear of blood. Similarly, fears of spiders and insects were highly correlated (r = .65), with 88% of individuals reporting a fear of insects also reporting a fear of spiders and 28% of individuals with spider fears reporting fears of insects. The fear most likely to be comorbid with another was the fear of public speaking. At least 34% of individuals reporting one significant or severe fear also reported a co-occurring fear of giving speeches (see Table 2 for the complete list of fear comorbidities).

In addition to the 12 fears that were formally assessed, 18.6% of participants wrote in at least one additional fear that they were bothered by. The most common of these were fears of clowns (1.5% of the total sample), fears of the dark (1.4%), fears of failing school (1.2%), fears of being sexually assaulted (0.7%), and fears related to vomiting or coming in contact with vomitus (0.5%). It is important to note that the true prevalence of these "atypical" fears cannot be assessed via this study because these data were based on fill-in-the-blank responses, not formally solicited answers. Thus, it is possible that the prevalence of some of these fears may be higher than the current figures suggest.

TABLE 1 Fear Prevalences

	% reporting significant or severe fears	Severe fears	Significant fears	Mean (SD)
Spiders	34%	14%	20%	1.9 (1.3)
Public Speaking	31%	11%	19%	1.8 (1.2)
Snakes	22%	6%	16%	1.5 (1.2)
Heights	18%	6%	12%	1.3 (1.2)
Receiving Injections	16%	7%	9%	1.1 (1.2)
Rats	15%	4%	11%	1.2 (1.2)
Tight, Enclosed Spaces	14%	5%	10%	1.1 (1.2)
Insects	11%	2%	9%	1.1 (1.0)
Intrusive Memories	10%	2%	8%	1.0 (1.0)
Seeing Blood	8%	3%	5%	0.7 (1.0)
Meeting New People	5%	1%	5%	0.7 (0.9)
Walking through Crowds	2%	0%	2%	0.4 (0.7)

TABLE 2 Fear Comorbidities

	Comorbid fear											
Specific fear	Blood	Claustro	Crowds	Heights	Injections	Insects	Memories	New Pple	Pblc speak	Rats	Snakes	Spiders
Blood		13%	2%	35%	63%	18%	19%	5%	37%	24%	31%	44%
Claustro	7%		6%	36%	19%	12%	20%	6%	34%	19%	24%	41%
Crowds	5%	35%		25%	25%	10%	40%	65%	50%	15%	10%	15%
Heights	15%	29%	3%		23%	21%	15%	9%	46%	23%	29%	34%
Injections	30%	17%	4%	25%		15%	17%	8%	41%	22%	31%	48%
Insects	13%	16%	2%	35%	22%		13%	6%	41%	28%	36%	88%
Memories	15%	29%	10%	28%	28%	14%		16%	40%	25%	30%	36%
New People	7%	16%	30%	30%	26%	12%	30%		70%	14%	16%	19%
Pblc Speak	9%	16%	4%	27%	22%	14%	13%	12%		17%	25%	40%
Rats	12%	18%	2%	27%	24%	20%	17%	5%	35%		54%	50%
Snakes	11%	16%	1%	24%	23%	18%	14%	4%	34%	37%		47%
Spiders	10%	17%	1%	18%	22%	28%	11%	3%	36%	22%	30%	

TABLE 3 Percentage of Students Interested in Receiving Treatment for Fears

	% of sign and severe interested in treatment	% of total sample interested in treatment
Public Speaking	20%	6.0%
Spiders	17%	5.8%
Snakes	19%	4.1%
Heights	22%	4.0%
Tight, Enclosed Spaces	25%	3.6%
Receiving Injections	19%	3.1%
Intrusive Memories	24%	2.4%
Rats	15%	2.2%
Seeing Blood	21%	1.6%
Meeting New People	28%	1.5%
Insects	12%	1.2%
Crowds	20%	0.5%

While 30% of participants reported an interest in receiving treatment for at least one specific fear, only 18% stated that they would be interested regardless of whether they received extra credit or another academic benefit. The majority of individuals expressing an interest in therapy for their fear reported a fear of public speaking (6.0% of the total) followed by fears of spiders (5.8%), snakes (4.1%), heights (4.0%), and tight, enclosed spaces (3.6%). Interestingly, though a fear of spiders was the most common fear, participants endorsing public speaking anxiety were slightly more likely to be interested in receiving treatment. Also, among the respondents indicating an interest in therapy without extra credit, 29% reported that they would be interested in treatment if it lasted no longer than two sessions, 31% if it lasted no longer than four sessions, and 35% if it lasted no longer than six sessions. See Table 3.

DISCUSSION

These data suggest that specific fears are quite prevalent on college campuses and many students experience fears at high levels of severity. Furthermore, this study demonstrates that a significant number of students are interested in receiving treatment for their fears or phobias.

This study has limitations, however. First, only a narrow band of fears and phobias was assessed, and information regarding some phobias, such as fears of thunderstorms, flying, or crossing bridges, was not solicited. This was intentional, as this study was designed to only address fears that could be easily treated within a university setting (e.g., treatments for fears of flying often require visits to an airport) and fears that would be most likely to impair a student's college life. However, it is clear that data relevant to a

wider array of fears experienced by this age group would be useful, such as a formal assessment of fears that included sexual assault and fears of failing school. A second limitation of this study was that it did not assess for the full range of criteria needed to make formal diagnoses; it assessed only for self-identified fears and their severities. Like most fear prevalence studies, these data can be used to approximate the prevalence of phobias on college campuses, but they cannot conclude how many students meet full criteria for a specific phobia or social phobia diagnosis.

In spite of these limitations, this study provides information regarding the percentage of college students suffering from significant fears for which they are interested in receiving treatment. While help may be available from off-campus clinics, many students do not have the financial resources to seek help, and many clinicians in the community do not have the familiarity or training necessary to deal with the unique concerns of this population. Thus, it is important for college counseling and mental health centers to begin addressing this problem more fully.

Treatment Recommendations

Over 50 years of research has demonstrated that exposure-based interventions are the treatment of choice for specific fears and phobias (Richard & Lauterbach, 2007). Exposure therapy can be administered using real-life situations (in vivo exposure) or through the use of imagined objects and scenarios (imaginal exposure). While in vivo exposures have been shown to be more effective than imaginal exposures (Bandura, Blanchard, & Ritter, 1969), imaginal exposures can be used when direct contact with the feared object or situation is unacceptable, unavailable, or dangerous. Imaginal exposures may also be used as a way to prepare the client for more effective in vivo exposures (Pagoto, Kozak, Spates, & Spring, 2006). The majority of college counseling centers do not offer in vivo exposure therapies, but beginning to do so would not be difficult.

Most in vivo treatments can be conducted in one to five sessions, and each session should proceed in small, gradual steps that are presented one at a time (Öst, 1997). Each gradation of the exposure should be intense enough to elicit some anxiety in the client, but no task should lead to feelings of helplessness or panic (Seim, Willerick, Gaynor, & Spates, 2008). Therapists may refer to treatment manuals by Antony and Swinson (2000) and Craske, Antony, and Barlow (2006) for a thorough discussion of how exposure tasks should be presented.

Once the therapy has concluded, the student should practice the new approach-behaviors on a regular basis to help with the retention of the treatment gains and to build a history of mastery experiences. These will help the student understand that not only have they completed this exposure once, they could do so again when needed.

Feasibility

Though phobias can usually be treated in a small number of sessions, the time commitment required for both students and therapists is great. Considering the high volume of clients seen at many college counseling and mental health centers, long individual therapy sessions may be unfeasible. Therefore, it is recommended that, when possible, therapists utilize group treatments for phobias. These can be scheduled weeks in advance and even advertised through campus flyers and Internet postings. Öst, Ferebee, & Furmark (1997) and Turk, Heimberg, & Hope (2001) have provided examples on how group treatments can be successfully conducted. Though college students are sometimes reluctant to participate in group treatments (Whitaker, 2006, p. 102), they are often more likely to participate in groups focusing on one particular problem or theme rather than a group dedicated to general concerns (Archer & Cooper, 1998, pp. 46–49). Also, the group environment can help students feel that they are not alone in their suffering, and the support of their peers may foster motivation to face new challenges. One potential problem with group interventions for phobias is that given the large prevalence of social phobia and its comorbidity with other specific phobias, some individuals will not join a group due to impairments secondary to social phobia. In those instances, the only recourse may be to provide individual therapy for both the specific phobia and the social phobia.

Much of the student's therapeutic progress may be complimented by behavioral homework assignments that are monitored by the therapist (Grayson & Cooper, 2006). A student with public speaking anxiety may find it useful to practice reciting a short speech when alone at home, a student with a snake phobia may benefit from walking through grassy areas, and a student with claustrophobia may ease their anxiety by going into their closet and closing the door for longer and longer periods of time each day.

Finally, as stated earlier, it is highly recommended that college counselors and psychotherapists take advantage of the unique therapeutic resources that abound on college campuses. Large lecture halls, podiums, small corridors, tall staircases, and animal laboratories are often easily accessible to university staff and unavailable to clinicians in the community. Furthermore, the availability of friends and same-age peers may help the student's therapeutic progress, whether as coparticipants in a therapy group or simply as sources of emotional support.

In conclusion, specific phobias and social phobias are common among college students, but students do not need to suffer. College mental health centers could provide cost-effective and time-effective ways to treat these phobias, but most will have to increase their efforts to do so.

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