

Chapter 4. Evidenced-Based Practice for Anxiety Disorders in College Mental Health

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SUMMARY. Anxiety disorders are the most common mental health concerns in the United States and they tend to be among the most frequently reported in college mental health. While efficacious research for the psychotherapy treatment of specific anxiety disorders (e.g., social phobia, panic disorder, etc.) exists, the picture is more complex in clinical practice especially with students who are treated as a whole person, usually involving multiple co-existing disorders as well as normal developmental challenges of adjusting to college. This chapter reviews the evidenced-based research for anxiety disorders in both the general population and the college student population, as well as evidence for therapist/relationship factors. It examines the numerous challenges for conducting effectiveness studies in college mental health, suggestions for working with chronically anxious college students, and future directions for research and practice in this area. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2005 by The Haworth Press, Inc. All rights reserved.]

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Given the incidence and prevalence of anxiety disorders among university students and the continuing likelihood of limited resources, therapists working in college counseling center contexts have many reasons to want to know about evidence-based practice (EBP). This chapter on anxiety disorders and treatment among college students by college mental health professionals addresses several aspects. First, the incidence, co-morbidity, and their impact on academic success and quality of life are covered. This is followed by a summary of evidenced-based treatments for anxiety disorders in the general population and in college mental health. Evidence for therapist/relationship factors in psychotherapy outcomes is then mentioned. The final sections of the work address challenges and suggestions for conducting EBP research and clinical practice with college students with anxiety problems. Future directions and questions for research and practice with anxiety disorders are also covered. Finally, a brief summary and conclusions are given.

INCIDENCE, CO-MORBIDITY AND THEIR EFFECTS ON ACADEMIC SUCCESS AND QUALITY OF LIFE

Anxiety Disorders are the most common mental illnesses in the United States, affecting 19.1 million (13.3%) of the adult population between the ages of 18-54. (Anxiety Disorders Association of America, 2003). They may develop from a variety of risk factors including genetics, personality and life events. The anxiety disorders are grouped in six categories including: generalized anxiety disorders (GAD, 4 million), obsessive compulsive disorder (OCD, 3.3 million), panic disorder (PD, 2.4 million), posttraumatic stress disorder (PTSD, 5.2 million), social anxiety disorder (SAD, 5.3 million) and specific phobias (11.5 million). The economic impact of anxiety disorders on the U.S. economy is estimated at 42 billion a year, including 22.84 billion attributed to repeated use of healthcare facilities.

In examining clients presenting problems at counseling centers, Benton, Robertson, Tseng, Newton, and Benton (2003) found that anxiety concerns tend to be among the most frequently reported client prob-

lems. Specifically, in their 13-year span study, the rate of stress/anxiety increased a full 26% (from 36.26% in 1988 to 62.87% in 2001). Anxiety disorders often have a detrimental impact on students' academic performance, attendance, retention, career selection, relationship development, as well as on their physical health and general well being. The treatment of these disorders among college students is frequently complex and difficult because clinical levels of anxiety are associated with increased risk of depression, substance abuse, and suicidal thoughts (Olfson, Marcus, Wan, & Geissler, 2004). As counseling centers continue to move toward brief therapy models of practice and greater emphasis on addressing more immediate or situational concerns, severe anxiety problems accumulate, requiring more time and more profound change for which students seek counseling.

EVIDENCED-BASED TREATMENTS (EBT) FOR ANXIETY DISORDERS IN THE GENERAL POPULATION

College counselors should first learn what is known about EBT with anxiety disorders in the general adult population. The majority of empirically supported treatments for the various anxiety disorders are concentrated on a variety of Cognitive Therapy and Behavior Therapy techniques (see Table 1). The investigations of these approaches have been judged as meeting the guidelines for Type I and II empirically supported treatments (Chambless, 2002; Chambless & Ollendick, 2001; Nathan & Gorman, 2002) which generally indicate clinical trials, manualized treatments, single diagnosis limitations, training and monitoring therapist adherence, managing the dose of intervention, random assignment to treatments, and blind evaluation procedures. The general anxiety disorder efficacy studies seem to support active treatments including Applied Relaxation, Cognitive Therapy and Cognitive Behavioral Therapy (CBT), whereas the obsessive compulsive disorder efficacy studies tend to support anxiety exposure followed by response prevention, and CBT. The panic disorder studies support in-vivo exposure, CBT, and applied relaxation, and the Post Traumatic Stress Disorder (PTSD) efficacy studies support exposure, stress inoculation, and the use of Eye Movement Desensitization and Reprocessing (EMDR), which also includes a desensitization component. Studies on the treatment of social anxiety/phobia efficacy indicate that social skills training procedures, relaxation training, exposure-based methods, CBT/group, and systematic desensitization are effective. With specific phobias,

TABLE 1. Evidenced-Based Supportive Interventions for Anxiety Disorders

Anxiety Disorders Classification	Evidenced-Based Supportive Treatments
Generalized Anxiety Disorder	Active Treatments Applied Relaxation Cognitive Therapy/CBT
Obsessive Compulsive Disorder	Exposure Response Prevention CBT
Panic Disorder	Exposure (In Vivo) CBT Applied Relaxation
PTSD	Exposure Stress Inoculation EMDR
Social Anxiety/Phobia	Social Skills Training Relaxation Exposure-Based Methods CBT/Group Systematic Desensitization
Specific Phobias	In Vivo Exposure CBT Relaxation Systematic Desensitization

Summarized from: Chambless & Ollendick (2001) and Nathan & Gorman (2002).

in-vivo exposure procedures, CBT, relaxation, and systematic desensitization appear to work successfully.

Results of several meta-analytic studies on psychotherapy outcomes for anxiety disorders, which tend to be based on the above listed psychotherapy approaches, are promising. For example, in the treatment of agoraphobia, Andrews (1982) found an effect size (measures the strength of a relation) of 1.30 on graded exposure compared to an effect size of 1.10 on antidepressant medication; Christiansen, Hadzi-Pavlovic, Andrews and Mattick (1987) studied OCD being treated with exposure based treatments and found an effect size of 1.37. The Quality Assurance Project (1985) found effect sizes of .98 with behavioral treatments for anxiety and 1.37 with exposure therapies for obsessive-compulsive behaviors. In reviewing a meta-analysis of 43 studies for panic disorder

(Gould, Otto, & Pollack, 1995) comparing CBT with pharmacological and combined CBT/pharmacological treatments, CBT was found to have fewer drop-out rates (5.6%), than either pharmacological treatments (19.8%) or combined CBT/pharmacological treatments (22.0%). Additionally, CBT produced larger effect sizes (.68) than pharmacological treatments (.47) and combined treatments (.56). In their meta-analytic review of a variety of treatments for anxiety disorders, Lambert and Ogles (2004) concluded that “psychotherapies clearly show effectiveness compared to wait list and no treatment control comparison groups.”

EVIDENCED-BASED TREATMENTS FOR ANXIETY DISORDERS IN COLLEGE MENTAL HEALTH

Campus based therapists wanting to know the EBT literature in our field would likely be disappointed by the scarcity of outcome research on anxiety disorders in college mental health. Moreover, the majority of the existing empirical evidence in college settings is based on non-clinical samples, especially psychology student volunteers. And, most of the research focuses on understanding other important variables such as assessing the relationship between OCD and treatment issues (Spengler, 1998); anxiety disorders and other co-morbid disorders such as PTSD and alcohol consumption (Huppert, Gershung, Riggs, Spokas, Filip, Hajcak, Parkar, Baer, & Foa, 2004; Kidorf & Lang, 1999); examining group difference among social phobia subtypes (McNeil, Vrana, Melamed, Cuthbert, & Lang, 1993); the impact of anxiety disorders on educational achievement (Ameringen, Mancini, & Farvolden, 2003); psychometric properties of the OCI-R in a college sample (Hajcak, Huppert, Simons, & Foa, 2004) and the traumatization of college students with the September 11 attacks (Blanchard, Kuhn, Rowell, Hickling, Wittrock, Rogers, Johnson, & Steckler, 2004; Blanchard, Rowell, Kuhn, Rogers, & Wittrock, 2004).

As noted above, outcomes studies with college students are often limited to volunteers or students in psychology courses and generally lack the research rigor expected from Empirically Supported Treatments (ESTs). Consequently, few findings of significance emerge. For example, two studies conducted in college contexts examined eye-movement desensitization and reprocessing (EMDR) for public speaking anxiety (Carrigan & Levis, 1999) and fear of spiders (Bates, McGlynn, Montgomery, & Mattke, 1996) reported non-significant out-

comes. In the first study, investigators isolated the effects of EMDR from the use of imagery alone. They utilized a variety of outcome measures, including physiological measures, but found no evidence for the effect of any of the treatments on the reduction of public speaking fears of undergraduate students. In the second study, Bates and his colleagues studied the effects of EMDR versus no treatment on pre-post treatment measures concerning reductions in the fear of spiders. Again, they found no evidence that EMDR led to significant change.

However, some university mental health focused investigations have reported gains from therapy (see Table 2). Borkovec, Mathews, Chambless, Ebrahimi, Lytle and Nelson (1987) found significant results for the treatment of generalized anxiety disorder with a combination of relaxation training and cognitive therapy. Register, Beckham, May, and Gustafson (1991) reported positive treatment outcomes through the use of stress inoculation bibliotherapy with test anxious undergraduate college students. His study involved minimal therapist contact (phone) and used a stress inoculation treatment manual that included procedures for relaxation training, cognitive coping strategies, and imaginal exposure. Also, Valdez (2003), in another study (unpublished master's thesis), compared Anglo American versus Mexican American college students and found cognitive restructuring to be equally efficacious with both groups in reducing worry about their academic careers. Finally, in a pilot test of counseling center college students with public speaking fears (Baez, 2003), graduate students were treated with a manualized CBT and In-Vivo Psychodrama-Based Desensitization (IVPBD) approach in a group format for 6 weeks. Results of pre-post testing with social anxiety and public speaking apprehension measures were significant and positive. This may suggest that eclectic approaches that utilize specific tested techniques can be effective and useful in providing the clinician with some flexibility to address specific problems and enhancing the effectiveness of the treatments. In addition, given the high demand for counseling services, college students may benefit from outreach programs (e.g., web based programs, classes, workshops, etc.) geared towards teaching stress inoculation and other CBT strategies early in their college years. Supporting evidence for this can be found in Lambert, Rietdijk, Hudcovicova, Van de Ven, Schrieken, and Emmelkamp (2003) where in a controlled randomized trial of the treatment of PTSD through the internet, they found positive results on the internet treatment condition in comparison to a waiting-list control group.

TABLE 2. Evidenced-Based Supportive Interventions for Anxiety Disorders in College Mental Health

Anxiety Disorders Classification	Evidenced-Based Supportive Treatments	Authors
Generalized Anxiety Disorder	Relaxation plus Cognitive Therapy	(Borkovec et al., 1987)
	Cognitive Restructuring with Anglo American & Mexican American college students	(Valdez, 2003)
Specific Phobias	EMDR (Fear of Spiders) Non-significant*	(Bates et al., 1996)
	EMDR (Fear of Public Speaking) *Non-significant	(Carrigan & Levis, 1999)
	Stress Inoculation	
	Bibliotherapy (Test Anxiety)	(Register et al., 1991)
	Group CBT & Psychodrama (Fear of Public Speaking)	(Baez, 2003, unpublished)

***EVIDENCE FOR THERAPIST/RELATIONSHIP FACTORS
IN PSYCHOTHERAPY OUTCOMES
OF ANXIETY DISORDERS***

The general psychology literature suggests that therapist/relationship factors (common factors) account for 30% of the variance in outcome studies while specific techniques account for 15% of the variance (Lambert, 1992). Studies looking at the therapy relationship and common factors in the area of anxiety disorders, although important, are scarce. One recent study (Huppert et al., 2004) found that therapist efficacy contributed to outcome in CBT treatment for Panic disorder and that overall experience (avg., 8.9 years) in conducting psychotherapy contributed positively to outcome as well. In addition, Miller, Taylor, and West (1980) in a follow-up study comparing the effectiveness of various behavioral approaches with problem drinkers, found that the therapists' rank on empathy accounted for 67% of the variance with patient outcomes suggesting that therapist factors in psychotherapy outcomes are more important than the specific therapeutic intervention or mental

condition. No specific studies on common factors in the treatment of anxiety disorders for university students receiving services at college counseling centers were found.

***CHALLENGES AND SUGGESTIONS
FOR CONDUCTING OUTCOME RESEARCH
ON ANXIETY DISORDERS IN COLLEGE MENTAL HEALTH***

Given the limitation of the generalizability of results of the current efficacy studies on anxiety disorders treatment to our university communities, counseling center professionals need to adapt and tailor the Evidenced-Based Practices (EBPs) to fit our student characteristics and environment. More importantly, we need to conduct research within our context. The following five categories for planning and organizing effectiveness studies in college mental health settings may be helpful.

The first component is development of a vision/plan for EBP anxiety reduction research. Suggestions are to:

1. develop partnerships with colleagues and with other centers and universities;
2. develop a long term vision of a research plan;
3. keep up to date on the recent outcome research related to your area of research;
4. enlist the support of your administrators (e.g., director) for protected time, resources, etc.;
5. watch out for situations causing splitting or multiple role conflict between the roles you serve as a clinician versus as a researcher (Johnson & Remien, 2003);
6. be creative about developing studies that fit the needs of the clients, agency and research;
7. consider other ways of examining what we already do, such as sophisticated qualitative methods;
8. accept that in our clinical practice, we treat the whole person. (This requires clinical flexibility such that the client's issues could be addressed outside of the study through another therapist or counselor.)

The second component for conducting EBP anxiety reduction research consists of several procedural actions. Probable steps include:

1. attempt to get your study exempt when seeking Institutional Review Board (IRB) approval from the university;
2. know that for IRB approval, if your study includes minors and you ordinarily don't get parental consent for treatment for these students, you may not need to obtain such parental consent for the study since student written consent (except for those under 18) may be sufficient;
3. advertise through the media of e-mail avoiding key strategic periods (e.g., not at the beginning of the semester when students are overloaded with information);
4. consider using web site private servers that protect confidentiality plus make it easier for students to follow-up at the end of treatment;
5. consider writing the results for publication during the summer months when college counseling centers typically aren't as busy.

The next component needed for conducting efficacy studies of evidence-based anxiety reduction in college mental health involves design considerations:

1. use a benchmarking research strategy by comparing the magnitudes of change obtained in the efficacy studies (McFall, 1996; Wade, Treat, & Stuart, 1998);
2. use pre-post testing employing well validated measures;
3. use an informational session to conduct pre-testing and to randomly assign students to control or treatment groups, beginning with the treatment groups and, once the group is completed, administer the treatment to the control group. (If the treatment is brief, e.g., 6 weeks or less, you can run both groups in one semester.);
4. if you are offering a research group that includes a control group, you may need to offer individual therapy if the student cannot or should not wait;
5. train graduate students to conduct the treatment, so that you can be blind to influence as to whom receives the treatment;
6. separate the names from the testing instruments so that you do not know who is in the study and who is not. (As yet another step, have another colleague or student collect the data.);
7. use brief valid instruments such as the Beck Depression Inventory (BDI) (Beck, Steer, & Garbin, 1988), in between sessions to determine therapy outcome, or examine the therapeutic allegiance

through the Working Alliance Inventory (WAI) (Horvath & Greenberg, 1989);

8. pre-determine the boundaries of the clinical contacts and the range of interventions that would be provided in order not to deter from the treatment protocols (Johnson & Remien, 2003).

Training implications are often another important consideration with EBP anxiety disorders investigations. Four options are:

1. consider tape-recording the sessions in order to insure the accountability and integrity of the research focus. Be it on interventions or process factors;
2. use the tape-recordings directly for training or supervision purposes (Johnson & Remien, 2003);
3. provide staff/intern development presentations on the results of the study;
4. use the research project to train staff/interns on the importance of transporting the evidenced-based treatments into the clinical setting.

Finally, certain ethical considerations for EBP anxiety reduction studies are critical:

1. inform clients that they are not required to be part of the study in order to receive the treatment because the center would be providing the treatment anyway;
2. make the boundaries between therapist and researcher roles versus the client and research participant roles clear to students and staff.

SUGGESTIONS FOR CLINICAL WORK WITH CHRONICALLY ANXIOUS COLLEGE STUDENTS

Students seeking help at college counseling centers tend to experience anxiety at both predictable and unpredictable times, ranging from predictable reactions to trauma (e.g., sexual assault) and specific situations that make them feel nervous (e.g., tests, oral presentations, meeting new people, etc.) to unpredictable situations such as waking up afraid in the middle of the night in a panic-like manner and not knowing why. Since students often present with multiple issues, anxiety may be

disguised as other presenting concerns, for example, abusing alcohol or using other drugs to manage social anxiety; increased depression due to frustration of not being able to cope with anxiety; or poorer grades due to not being able to participate or speak in class, test well, or pass oral comprehensive exams. As a result, it is important to begin with a broad clinical interview. Testing, using a general spectrum inventory such as the Outcome Questionnaire (OQ-45) (Lambert, Hansen, Umphress, Lunnen, Okiishi, Burlingame, Huefner, & Reisinger, 1996) or the Brief Symptom Inventory (BSI) (Derogatis, 1993), should also be considered. Alternative assessment indices may include the self-help type questionnaires on the web that are under the public domain.

Once a diagnosis or conceptualization of the presenting anxiety problems is completed, treatment can begin. However, it is a generally recognized practice to treat first conditions associated with potentially harmful behaviors such as suicidality or alcohol dependency. Similarly, it may be advisable in certain cases to refer to a medical doctor for a physical exam to rule out any medical concerns. Initially, students typically benefit by receiving something that provides some immediate relief such as a basic relaxation strategy (e.g., diaphragmatic breathing) or being able to talk about what they are going through. It is often helpful to let them know that anxiety is a condition that can be treated successfully with individual or group psychotherapy (e.g., CBT) alone or with medication. Another important strategy can be to provide information on the nature of the anxiety and how anxiety produces the physiological symptoms (e.g., heart racing, shallow breathing, trembling, etc.). Other helpful information may include explanations of the fight-flight response, the relationship between anxiety and performance, and the need to focus on managing the anxiety rather than eliminating it.

College counselors might consider encouraging students to gather data through journaling about specific symptoms and their severity, how long they last, under what conditions they occur, and how the student has tried to cope. Generally, as clients gather and record such data, they become more aware of the precipitating events, which may assist them to talk about what types of thoughts seem to go along when the anxiety is about to occur or is occurring. As a result, most students using journaling would understand that their anxiety does not occur due to particular activating events but due to their perceptions of the events or irrational thoughts (e.g., through CBT). As clients continue to log the events and the irrational thoughts, it is likely that they would perceive an increase in their irrational thinking. At this time, the college counseling center therapist might suggest that the increase is not necessarily

due to the symptoms getting worse but to the fact that they are better at recognizing them and, that eventually, the symptoms almost always decrease with treatment. As students continue to use CBT strategies by disputing irrational thoughts, correcting cognitive distortions, learning response prevention, practicing progressive muscle relaxation and imagery exercises, their co-morbidity symptoms usually decrease as well. Finally, it is important to remind clients that if they stop practicing the strategies too soon, the symptoms may return. Providing or being available for a follow-up or booster sessions at a later time can be very helpful to maintain or enhance gains.

FUTURE DIRECTIONS AND QUESTIONS FOR RESEARCH AND PRACTICE WITH ANXIETY DISORDERS

As a scientist practitioner who works in college mental health, I believe the seven principles of empirically supported interventions in counseling psychology (Wampold, 2002), have utility in the research of EBP with anxiety disorders, especially the guidelines for relative efficacy (principle 4), outcomes assessed at the local setting (principle 7), and recognition of the freedom of choice in adapting interventions (principle 7). These two principles reflect the importance of adjusting treatments for anxiety problems based on our particular respective clinical settings and recognition of the clinical decision making of competent clinicians while maintaining rigorous methodology. As it has been suggested by Benton, Robertson, Tseng, Newton, and Benton (2003), college counseling centers today are dealing with increased chronicity, co-morbidity, and complexity of issues yet with the same or less professional resources.

Efficacy research on client anxiety reduction is much needed in college mental health. Given the limitation of resources, more partnerships should be developed similar to those already in place, including The Research Consortium of Counseling and Psychological Services at the Counseling and Mental Health Center at The University of Texas in Austin, and Suffolk University among others (See Counseling Center Village web page at (<http://ubcounseling.buffalo.edu/rn.html>)). Also, more governmental support is needed, such as what was envisioned with the “Garrett Lee Smith Memorial Act” (The Counseling Center Care Bill) (APA, 2004) which, if funded, could provide college counseling centers with more financial resources to conduct empirically supported outcome research.

There are challenges to conducting such EBP anxiety disorders research due to requirements for achieving rigorous protocols competing against the practical clinical needs of the college counseling center of today. Among others, the rigor imposed by clinical trials requires manualized treatments, specificity of diagnosis, and using reliable outcome instruments. University mental health services are typically eclectic, avoid diagnosis but are poly-problem oriented, and may lack the resources to purchase high quality outcome instruments. Many counseling centers may also have to deal with constraints imposed by institutional review boards (IRB) and the national HIPPA guidelines, the need for increased service delivery, and no research time allotment for clinicians.

Given the nationwide public recognition of major mental health concerns (e.g., anxiety, suicide, substance abuse, and others) among college students across the nation, university mental health centers are becoming more visible and their impact on the university is widely recognized. Enough seems to be known about the treatment of anxiety disorders to suggest that we can be effective in assisting most students who seek our services for these problems. Student mental health services centers are a vital source of support for students with these disorders so that they can function and excel in the stressful academic environment.

CONCLUSIONS

Empirically supported treatments for anxiety disorders appear to have been fruitful in demonstrating treatments that are efficacious for specific conditions. These treatment approaches tend to be based on cognitive, behavioral, and CBT strategies which are active and brief in line with the present trends in college mental health toward symptom focused and time limited practices. Nevertheless, the available efficacy research may have uncertain clinical utility or may lack in generalizability to transport them to our student populations. Moreover, the efficacy research on anxiety disorders in counseling mental health centers is especially scarce.

Given the stringent measures and lack of generalizability of Empirically Supported Treatments (ESTs), what appears to be lacking in college counseling center research are excellently designed investigations on the process of how people change. What many practitioners notice, as I have, is that factors other than prescribed interventions also appear to be quite meaningful and worthy of empirical research. These other

factors include the strength of the therapeutic relationship, cohesion, and the installation of hope by the therapist. Given that as much as 30% of the variance in treatment outcome may be accounted for by therapist/relationship factors, investigations of these factors are likely to be important to the work of counselors in college counseling centers.

With nationwide public recognition and financial support for mental health services, college counseling centers can increase the delivery of brief and competent services to students, while producing outcome research that is tailored to our particular population. Also, we can develop outcome-based outreach programming to influence our student environments while contributing to the knowledge of evidenced-based practices.

In summary, with an expanded view of evidence (Chwalisz, 2003) and the interplay of science and practice informing each other, we can improve our ability to provide competent services to our students in the area of anxiety prevention and anxiety disorders remediation. Additionally, it is important that we develop training on ESTs, both didactic and experiential, for our future college counseling centers clinicians and the profession at large. This requires us to begin with the professional development of current mid-level and senior clinicians, so that they can integrate the EST knowledge base with their wisdom in clinical practice, and then train and mentor interns with this perspective.

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