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Student Psychotropic Drug Use, Past Therapy Experience and Length of Therapy

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STUDENT PSYCHOTROPIC DRUG USE, PAST THERAPY EXPERIENCE AND LENGTH OF THERAPY

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Leigh Ann Mathis

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STUDENT PSYCHOTROPIC DRUG USE, PAST THERAPY EXPERIENCE AND LENGTH OF THERAPY

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The goal of the present study was to examine the relationships between college students with prior therapy and psychotropic drug experience and total number of therapy sessions. This study also investigated specific types of medications students were taking and total number of therapy sessions attended. The first hypothesis under investigation was that students who have received therapy prior to beginning treatment would remain in therapy significantly longer than participants who have received no prior therapy. It was also hypothesized that students who were prescribed psychotropic medications prior to beginning therapy will remain in therapy significantly longer than students who were taking no psychotropic medications. Lastly, it was hypothesized that students who reported taking anti-anxiety or anti-depressant medications would stay in therapy longer than students taking other types of psychotropic medications will. Participants (n = 279) were collected from a pre-existing database and included students who received therapeutic services from a Southern university whose population comprised 18,485 students. The first two hypotheses were evaluated using a 2 (Prior Therapy: Yes vs. No) x 2 (Prior Medication: Yes vs. No) Analysis of Variance (ANOVA). The third hypothesis was analyzed using a 2 (Antidepressant Medication: Yes vs. No) x 2 (Anxiolytic Medication: Yes vs. No) x 2 (Other Psychotropic Medications: Yes vs. No) ANOVA. Results supported hypothesis 1: students who have previously attended therapy will stay

in therapy significantly longer than students with no prior therapy experience F (1, 275) = 6.65, p = .01). However, findings did not support either hypotheses 2 or 3: students who were taking psychotropic medications prior to entering therapy did not stay in therapy significantly longer than students who were not taking psychotropic medications prior to therapy, regardless of type of medication.

Results of the present study are important, as they provide a basis for future research examining prior college student therapy and psychotropic medication experience and duration of treatment at campus counseling centers. Additionally, results suggest that students with prior exposure to therapy stay in therapy longer than students with no prior exposure to therapy. One explanation for this finding is that students with prior therapy experience are likely more familiar, and more comfortable, with the therapy process than those with no prior experience. In turn, they stay in treatment longer. Universities and campus counseling centers may consider providing students with information about mental health and therapy, as this finding and research suggests that students with personal experience or prior knowledge of mental illness or therapy have more favorable attitudes about therapy than those with no prior knowledge or experience. It is also feasible that students who continue therapy while attending college have more severe mental health problems or disorders and require further treatment. This finding is significant for universities and campus counseling centers, also, as many counseling centers use a brief model of therapy, which may not prove beneficial for students with more severe problems. However, definitive information is not available, as the current data set lacks important information, such as the previous duration of treatment, student diagnoses, time of semester that the students entered therapy, and improvement in

symptoms following current therapy. Thus, results should be interpreted with caution. Other limitations and suggestions for further research are also discussed.

Introduction

Mental disorders that involve impaired functioning, psychological symptoms, abnormal behaviors, or a combination of these (American Psychological Association; APA, 2007), are the leading cause of disability in the United States (National Institute of Mental Health; NIMH, 2008a). Aproximately 57.7 million people, or 26.2 percent of Americans, 18 and older are diagnosed with a mental disorder each year. In addition, 5% of individuals diagnosed with a mental disorder are also diagnosed with more than one disorder (NIMH, 2008a). Children and adolescents also appear to be experiencing serious problems with mental health. Research shows that between 3 and 5% of young children are diagnosed with Attention-Deficit Hyperactivity Disorder; 1 in 12 adolescents are diagnosed with major depression; and 1 in 14 of those diagnosed with major depression will commit suicide (American Academy of Child and Adolescent Psychiatry; AACAP, 2003).

Students arriving on college campuses represent a portion of the population that experience problems with mental health, and growing body of evidence supports increasing percentages of college students with mental health problems. Gallagher's (2007) annual survey of counseling center directors and staff indicates a belief that the number of students with mental disorders entering universities is on the rise. Further, Fromm (2007) asserts that college students are increasingly electing to pursue coursework despite experiencing major mental health problems and disorders.

Research looking at college student mental health problems focuses, almost exclusively, on prevalence rates, severity and types of mental health problems found

within the college student population. Few studies examine student mental health (e.g., counseling and psychopharmacological experience) prior to enrollment, and no studies to date analyze the relationship that may exist between student counseling and psychotropic medication experience prior to entering campus therapy and duration of treatment at campus counseling centers. Likewise, studies examining the possible relationship between classes of medications (e.g., the anti-depressant Prozac or the anxiolytic Xanax) students are taking while attending therapy and number of therapy sessions attended are non-existent. This paper will review existing literature on college student mental health with regards to prevalence rates, severity, types of stressors, common disorders and medications, and counseling and medication experience. It will also provide a "snapshot" of student mental health, specifically looking at medication and counseling experience prior to enrollment and total number of therapy sessions attended at a campus counseling center. In addition, this paper adds to the existing literature with respect to the relationship that may exist between types of psychotropic medication college students are taking while attending college and number of therapy sessions attended.

For purposes of this paper, "mental health problems" will be used if no diagnosis has been articulated within existing research, and "mental disorders" will be used if diagnoses are expressly stated in existing research. With regards to symptom severity, the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (DSM IV-TR; American Psychiatric Association [APA], 2000) defines severity of disorders as mild, few if any symptoms are present; moderate, symptoms or functional impairment is between mild and severe; and severe, enough symptoms are present to

make a diagnosis or individuals exhibit marked impairment in their social and occupational functioning. However, these specifiers are used only when full criteria for a disorder are met. Additionally, research is ambiguous when defining severity of mental health problems and disorders. Thus, for purposes of this paper, level of severity of mental health disorders and major mental health problems experienced by college students is articulated as those individuals who meet criteria for a specific disorder(s) or experience marked impairment in their daily lives.

Severity of Disorders Among the College Population

Since the late 1980s, college counseling center directors and researchers report a rise in the number of students with major mental health problems (e.g., major anxious and depressive symptoms) and disorders (O'Malley, Wheeler, Murphey, O'Connell, & Waldo, 1990; Robbins, May, & Corazzini, 1985). More recent research (Benton, Robertson, Tseng, Newton, & Benton, 2003; Collins & Mowbray, 2005; Gallagher, 2007) has also focused on the perception of an increase in severity of mental health disorders exhibited by university students; their findings reveal that the number of students with more severe mental health disorders is increasing. Collins and Mowbray's (2005) results suggest that the percentage of college students with more severe mental health problems has risen from an estimated 2.6% in 1978 to more than 9.0% in 1998. Similarly, Gallagher's (2007) annual report shows that, of the 272 directors surveyed, 93% indicate that their college counseling center practitioners are seeing more students than in the past with mental health disorders.

Benton et al. (2003) were interested in examining trends in counseling center clients' mental health disorders and conducted the most comprehensive study to date. Across a 13-year span, they examined counselor diagnoses of student mental health problems, and their findings led them to conclude that students are experiencing severe mental health problems and disorders, as well as typical developmental and adjustment problems. More specifically, they found that many students who were seen at their campus counseling center exhibited major problems with anxiety and that student prevalence rates of depression doubled over the study's time period. Cornish, Kominars, Riva, McIntosh, and Henderson (2000) examined student distress over a six-year period, but instead of using counselor diagnoses of client mental health problems, they used client self-report of symptom distress. Their findings also revealed an increase in symptom severity, also.

Gunn, Grieve, Greer, and Thomas (2005) examined differences in levels of severity of mental health disorders between university counseling center and community mental health center patients. Analysis of the data indicated that 100% of the community center mental health patients exhibited major problems with mental health disorders and well over half (65%) of college students had major problems with mental health. Similarly, Todd, Deane, and McKenna (1997) compared Symptom Checklist-90—Revised (SCL-90-R) scores of 435 nonpatient students and 209 patients from a psychology clinic with nonpatient adults and adult outpatients, and they concluded that nonpatient college students showed much higher symptom severity associated with mental health problems and disorders, than nonpatient adults. Their findings also

revealed that college student outpatients were as symptomatic as, or slightly less symptomatic, than adult outpatients.

It also appears that, as more students enroll in college with more severe symptomology, the number of students taking psychotropic medications is on the rise (Grayson, Schwartz, & Commerford, 1997; Gallagher, 2007; Whitaker, 1992). In addition, college students experiencing problems with mental health also appear to have a history of prior therapy experience (Gallagher, 2007). A review of studies on psychotropic drug use and psychotherapy reports an increase in students who are taking psychotropic medications and attending therapy prior to entering therapy on college campuses and notes that more students ask for medication as soon as they enter therapy "without questioning the need for them" (Whitaker, 1992, p. 79). However, an alternative explanation for these findings may be that more college students than in the past are being prescribed psychotropic medications to treat a variety of mental health symptomology. As a result, colleges may not be actually seeing a rise in students with more severe mental health problems or disorders, but are seeing an influx of students taking physician-prescribed psychotropic medications for similar symptomology as students experienced in the past.

There is evidence to dispute the results of studies indicating an increasing number of students entering college with more severe mental health problems and/or disorders. Sharkin and Coulter's (2005) examination of previous findings (Benton et al., 2003; Cornish et al., 2000) reveals that there is little empirical evidence to support an actual trend in symptom severity within the college population, and they maintain that there are

serious methodological problems with these studies. They cite a number of possible reasons for the reports of increase in client symptomology, some of which include: an increase in diagnoses made by counselors because of improved training with assessment instruments; distorted perceptions of problem severity by counseling center directors and staff because of lack of sufficient observation; and studies not covering sufficient time periods. Schwartz (2005), using the Personality Assessment Inventory to assess 3,400 counseling center clients, also reports stable rates of mental health problems over a 10-year period. He concurs with Sharkin and Coulter's conclusions that counseling center practitioners' perceived notion that more students are presenting with increased levels of symptomology is likely due to treatment of a small number of students with problems other than the traditional developmental, adjustment, vocational, and career problems.

Types of Stressors Students Experience

There is little debate that the college student population has to contend with their own unique set of problems, despite a lack of consensus about whether there is an actual increase in college student severity of mental health problems and disorders. Students deal with a variety of stressors and these problems often become so major that many seek therapeutic services at campus counseling centers for psychological assistance.

What types of stressors are students experiencing that the general population does not? Many students enrolling in universities struggle with a variety of concerns including a more demanding course load than previously experienced in high school, adjustment problems associated with leaving home and living independently, anxiety over post-graduate career opportunities, and difficulties acclimating to a new social environment

(Hinkelman & Luzzo, 2007; Kadison & DiGeronimo, 2004). A survey (Furr, Westefield, McConnell, & Jenkins, 2001) of 1,455 college students led researchers to conclude that, of those students who experience problems with depression, the four most common risk factors for their depressive symptoms are academic problems, loneliness, relationship difficulties and economic problems. Bishop (2006) and Cellucci, Krogh, and Vik (2006) also cite other common risk factors that are challenging for university students, some of which include sexual victimization, legal problems, and substance abuse issues. For some students, these problems can become so major that as much as 9% of the college student population report "seriously considering attempting suicide" (American College Health Association [ACHA], 2007, p. 28).

Common Mental Health Problems and Disorders

While the vast majority of university students do not contemplate ending their lives, many students seek therapeutic services on campus because of an inability to cope effectively with life's stressors. Kessler, Chiu, Demler, and Walters (2005) estimated lifetime prevalence and age-of-onset distributions of disorders in the DSM-IV-TR (APA, 2000) and results are as follows: anxiety disorders, 28.8%; mood disorders, 20.8%; impulse-control disorders, 24.8%; and substance use disorders, 14.6%. Their findings also reveal that three fourths of all lifetime cases start by the age of 24 years. For the past several years, campus counseling center directors and staff report seeing students with a myriad of serious mental health disorders like the ones mentioned above (Gallagher, 2007). Kadison and DiGeronimo (2004) emphasize that students have major problems with depression, sleep disorders, substance abuse, anxiety disorders and eating disorders,

and state that these "are in order of common occurrence" (p. 90). In addition, Benton and colleagues (2003) note that 40% of clients seen at their campus counseling center have problems with depression, 7% have personality disorders, and almost 9% have some form of chronic mental disorder.

Anxiety and Depression. Historically, depression was the most prevalent diagnosis on campus (Rimmer, Hailikas, & Schuckt, 1982), and the same holds true today (Benton et al., 2003). The American College Health Association's (ACHA; 2007) annual survey of college students indicates that nearly 15% of students nationwide suffer academically because of depression and/or Seasonal Affective Disorder. In addition, students are experiencing major symptomology characteristic of mood disorders like Major Depression, Bipolar depressions, Dysthymia, and Depressive Disorder Not Otherwise Specified (NOS; APA, 2000). Recent research has shown that the lifetime prevalence estimate for depressive disorders is nearly 17%, the one-year prevalence rate is approximately 10%, and the average age of onset for a first depressive episode is in the mid-20's (Kessler et al., 2005). This latter figure holds particular importance for college students because of the myriad of stressors experienced while attending college.

While depression is a major problem for the college population, anxiety disorders are also prevalent on college campuses. Benton et al. (2003) found that, until 1994, relationship problems were the most commonly cited problems for students in therapy; however, analysis of data since 1994 revealed that an increasing number of students report major problems with stress and anxiety. Eisenberg, Gollust, Golberstein, and Hefner (2007) cite that nearly 8% of undergraduate and graduate students screened

positive for current panic disorder or generalized anxiety disorder and Gallagher (2007) reports that over one fourth of 2,780 students, from 19% of the college campus counseling centers that participated in Anxiety Screening Days, were referred for treatment at campus counseling centers. There has also been an increasing interest in research on anxiety and college students in Great Britain. Results of Cooke, Bewick, Barkham, Bradley, and Audin's (2006) study led these researchers to conclude that greater strain is placed on well-being once students start college as compared to levels before students enter college. They also indicate that anxiety rises and falls across the year but does not return to pre-university levels.

Treatment Modalities at Campus Counseling Centers

Counseling. Grayson et al. (1997) examined student use of psychotherapy and psychopharmacology at their campus counseling center and found that psychotherapy is still the preferred mode of treatment. However, they found that student use of psychotropic medications for treatment of psychological illness is on the rise. Bishop (2006) noted that students seem to be paying more attention to their mental health, and Cooper and Archer (1999) further surmised that students are finding it more socially acceptable to seek therapeutic services on campus. Thus, in order to deal with the influx of students seen in campus counseling centers in recent years, universities and counseling center staff are required to restructure their programs and take another look at treatment modalities. Benton et al. (2003) found a brief model of therapy to be more time and cost efficient for their university, despite findings that suggested an increase in student-client pathology in their counseling center. Whitaker (1992) also surmised that brief therapy is

currently the preferred mode of treatment by campus counseling staff and that short-term therapy will be the most popular treatment on campuses in the future.

Grayson and colleagues (1997) investigated student mental health and psychotropic drug use, and these researchers predict future problems at campus counseling centers because of lack of adequate psychiatric services for students with more severe mental health problems or disorders. They note that 42% of universities offer no psychiatric services for this population of students. Jaquie Resnice, president of the Association for University and College Counseling Center Directors (AUCCCD), stated, "Most counseling centers are expected to use brief therapy models and help students matriculate through school, and yet there's an expectation and desire for us to handle people who have more severe stress, which might require longer-term treatment" (Birch, 2005, ¶ 13).

Another change noted on college campuses is the increase in the number of students enrolling in college with prior therapy experience; over 75% of counseling center directors report that they are seeing more students pursuing further therapeutic treatment than in the past (Gallagher, 2007). It appears that either young adults' help-seeking attitudes regarding mental health problems is improving or they are seeking continuation of treatment for more severe mental health problems or disorders experienced as adolescents. Gonzalez, Tinsley, and Kreuder (2002) note that college students who are more educated about mental illness and therapy, or exposed to the counseling experience, have more favorable attitudes about mental illness than those without any type of knowledge or personal experience with counseling. Further, Kessler

and Wang's (2008) review of the literature on childhood and adolescent mental disorders indicates that most individuals with a history of mental disorders begin having problems during childhood or adolescence. These authors report that the average age of onset for mood disorders is mid-teens; they further indicate that anxiety disorders like phobias and separation anxiety disorder have the earliest age of onset distributions, ages 4 to 20 and 5 to 11, respectively.

Probst's (2008) research, which further examines adolescent mental health disorders, reveals that 14% of adolescents, ages 15 to 18, have major problems with depression, and for those diagnosed with Major Depressive Disorder, approximately 70% experience a second major depressive episode within two to five years. Additionally, between 20% and 40% of these individuals continue to have persistent symptoms throughout adulthood. These findings hold particular importance for college students as they contend with new challenges and stressors while attending college.

Number of therapy sessions and Treatment Outcomes. While it appears that more students than in the past are seeking psychological assistance for their mental health problems, few studies have examined therapy treatment outcomes within the college population. Wolgast et al. (2005) investigated the number of sessions needed for college counseling center clients of different levels of severity of distress at intake to achieve clinically significant change (CS); they found that 50% of the students who were more dysfunctional required 20 sessions in order to achieve CS and 50% of those students who were less dysfunctional required 14 sessions. Upon examination of client data at a community health center, Anderson and Lambert (2001) considered severity of

symptomology at intake and found that patients with more severe mental health problems needed 20 sessions to establish CS as opposed to 12 sessions for those less impaired.

Benton et al.'s (2003) examination of number of counseling sessions students attend found a decrease in the average number of therapy sessions students attend. The average number of sessions for students was 6.87 from 1989 to 1992, 6.17 from 1992 to 1996, and 5.98 from 1996 to 2001. However, the authors contend that the decrease in total number of sessions is the result of an increasing use of a brief model of therapy. They indicate that although the numbers of students with more complex problems is increasing through the years, assigning diagnoses to students is not the norm. Therefore, their focus is on using time efficiently and working within four to ten sessions.

Using the dose-effect relationship model (dose is the number of sessions; effect is treatment outcomes) to evaluate client progress, other researchers (Draper, Jennings, Baron, Erdur, & Shanker, 2003; Kadera, Lambert, & Andrews, 1996), report similar results as those looking at CS. Draper et al.'s report on Howard, Kopta, Krause, and Orlinsky's (1986) prior study reveals that 50% of clients improve after eight sessions and 75% of clients improve after 26 sessions. Findings from the Kadera et al. (1996) study show that individuals who attend more therapy sessions make greater therapeutic gains and improvements than individuals who attend fewer sessions.

Draper et al. (2003) examined treatment effects and number of sessions among college students and used the Outcome Questionnaire 45 (OQ45) as a measure. They report that the more sessions students attend prior to termination the larger the pre-post OQ45 difference. They indicate that nearly 40% of students report achieving "recovery"

when they attend 10 sessions as opposed to the 28% of students that report achieving "recovery" after 4 sessions. These researchers suggest that practitioners at campus counseling centers who use a brief model of therapy should be cognizant that a time-limited treatment modality has consistently shown to be only moderately effective.

Psychopharmacology: antidepressants, anxiolytics, and other psychotropic drugs. Campus counseling centers have undergone changes in response to increased numbers of students with more severe mental health problems attending college (Kadison, 2006). Counseling center practitioners have taken on additional responsibilities, and psychiatrists and clinical psychologists regularly assess, diagnose, and prescribe psychotropic medications for these students (Grayson et al., 1997). Counseling center staff and some researchers expect that this mode of treatment will continue to grow (Gallagher, 2007; Grayson et al., 1997).

If more college students evidence more serious mental health problems, then it is reasonable to expect that more students take psychotropic medications as an adjunct to therapy. Results of Shwartz's (2006) study indicate that counseling center clients' medication use increased fivefold in a 10-year period (1992-1993 through 2001-2002), and this finding is consistent with results of the 2004 National Survey of Counseling Center Directors. Directors from 300 counseling centers report that 25% of their clients are on medication, and this number is nearly three times the 9% of students who reported using medication in 1994 (Gallagher, Gill, & Sysko, 2004). Similarly, the 2004 American College Health Association-National College Health Assessment (ACHA-NCHA) indicates that 25% to 50% of U.S. college students take antidepressants.

Grayson et al. (1997) further investigated student psychotropic medication use, and results suggested that student psychotropic medication use is greater in more recent cohorts of students, as compared to past student cohorts. Using data from 300 student-client intake forms across a ten-year span (1986-1987; 1991-1992; 1995-1996), they found that college students entering therapy in 1995-1996 were more likely to have been prescribed psychotropic medications than in 1991-1992. In addition, findings indicated that students entering therapy in 1986-1987 were least likely to enter therapy already taking psychotropic drugs than in the latter years. For the 1995-96 school years, 11% of students were taking some type of anti-depressant, and 9% of these were taking a Selective Serotonin-Reuptake Inhibitor (SSRI). Benton et al.'s (2003) data also included students' prior use of psychotropic medications; however, it is important to note that the item "medication used" was only checked by students with prior medication history and only if this medication "was considered part of their continuing treatment" (p. 70). They found that student medication use increased from 10% to 25% across a 13-year span.

Psychotropic Medication and Medical Doctors. While many individuals still seek services from mental health practitioners for mental health problems and/or disorders, an increasing percentage of those seeking services go to medical doctors for treatment of symptomology. Presumably, it is easier for individuals to acquire psychotropic medications from medical doctors, as services from psychiatrics often entail extensive evaluation of symptomology and follow-up sessions. Pincus et al. (1998) report that for the period of 1985 through 1994, the number of visits that individuals made to medical doctors during which psychotropic medications were prescribed increased from 32.73

million to 45.64 million, an increase from 5.1% to 6.5%. Findings also indicate that the level of individuals seeking prescriptions for antidepressants has risen and surpassed those seeking prescriptions for anti-anxiety medications--previously the largest category.

As more and more individuals seek services for mental health problems from medical doctors, many do not receive adequate services. Research (NIMH, 2005) indicates that medical doctors often do not conduct appropriate evaluations of mental health symptoms, nor do they refer patients for further therapeutic treatment. Students already taking psychotropic medications who have had no prior therapy experience may choose to try counseling, feel uncomfortable with the therapy experience, and in turn, leave therapy early. Results from the NIMH's (2005) study on physicians' psychotropic drug prescribing practices reveal that any participant-actor who asked for a specific psychotropic medication was more likely to receive inadequate initial care (e.g., inappropriate psychotropic drug, lack of referral for mental health treatment, or no follow-up visit) than a participant-actor who did not ask for a specific psychotropic drug. More alarmingly, results found that physicians were more likely to make a diagnosis (e.g., depression 88% versus 65 percent and adjustment disorder 50% versus 18%) if a participant-actor made a request for a particular psychotropic medication (e.g., Paxil) than if a participant-actor did not make a request for a specific type of medication.

Antidepressant Medications. Antidepressant medication use has risen greatly in the past several decades. The first SSRI, fluoxetine (Prozac), was released in 1987, and with this medication came new and more effective treatments for depression with far fewer side effects than the older tricyclic drugs ("Comparing Selective Serotonin

Reuptake Inhibitors to Tricyclic Antidepressants," 2007). Some side effects of the tricyclics include sedation, dry mouth, weight gain, constipation, dizziness, palpitations, and marked impairment of cognitive and psychomotor functioning. Also, many older antidepressants, such as the Monoamine Oxidase Inhibitors are toxic in overdose (Bezchlibnyk-Butler & Jeffries, 2003; "Comparing Selective Serotonin Reuptake Inhibitors to Tricyclic Antidepressants," 2007). While many of the newer antidepressants produce some of the same side effects as the tricyclics, it is typically to a much smaller degree.

The newer antidepressants treat various symptoms of depression, anxiety and other nonpsychiatric conditions ("Mental Illness," p. 8), and these psychotropic drugs improve symptoms like sadness, hopelessness, lack of energy, restlessness, difficulty concentrating, and lack of interest in activities (APA, 2000). Several commonly prescribed types of antidepressants are citalopram (Celexa), bupropion (Wellbutrin), sertraline (Zoloft), and cipralex (Lexapro). Further, some mood stabilizers used to treat various disorders are as follows: lithium or lithium carbonate for Bipolar I, II, and Bipolar NOS; heterocyclic, atypical antidepressants and SSRIs for major depression; and SSRIs for atypical depression (Maxmen & Ward, 1995).

As seen within the general population, student use of antidepressants has risen dramatically in recent years. Grayson et al. (1997) looked at prevalence rates and different types of psychotropic medications students were taking at their campus counseling center and found that the use of antidepressants had increased. In addition, results showed that preferred antidepressants were the SSRIs. Benton et al. (2003)

surmised, although subjectively, that the number of students coming in already taking anti-depressants had increased; however, they did not have the data to support this idea.

Anxiolytics or Anti-anxiety medications. While the number of students attending college taking antidepressants for depressive symptoms is increasing, the level of university students taking anxiolytics for anxiety-related problems is also on the rise. According to McCabe, Teter, and Boyd (2006), 3% of undergraduates in their study reported taking prescribed sedatives or anxiety medications; this was the second-largest category of medications, following pain medications (24%). Similarly, the National Institute of Mental Health, as cited by the Anxiety Disorders Association of America (ADAA), indicates that approximately 75% of all people with an anxiety disorder will experience symptoms before they are 22 years old (ADAA, 2007). Kessler et al. (2005) also reveal that anxiety disorders affect approximately 44 million adults 18 years and older each year. This is particularly disturbing because of the high levels of stress that college students experience while attending college.

Psychotherapy in conjunction with psychopharmacology has shown to be effective in treating most anxiety disorders (Pampallona, Bollini, Tibaldi, Kupelnik, & Munizza, 2004); however, Fava and Ruini (2005) recently reviewed existing literature and suggest integrating pharmacotherapy and psychotherapy in a sequential fashion. They report that the most effective practice involves using medications during the acute phase of the illness and psychotherapy during the residual phase. Fava and Ruini also bring to attention the clinical challenges that often accompany the comorbidity in mood and anxiety disorders and indicate that a sequential approach to treatment is promising.

Much like the newer antidepressants, some benzodiazepines have replaced the use of barbiturates and antihistamines because they are less dangerous and have fewer side effects (NIMH, 2003). Some common side effects of the older antianxiety medications include drowsiness, dizziness, and/or unusual excitement. In addition, physical dependence can occur, and withdrawal symptoms (e.g., nausea and vomiting) are often severe and life threatening. However, individuals typically require increasing amounts of benzodiazepines in order to get the same effect. Therefore, benzodiazepines are, in general, prescribed for short periods of time—approximately four weeks (NIMH, 2008b).

Some commonly prescribed types of anxiolytics used to treat anxiety disorders are the benzodiazepines Xanax, Valium, Halcion, Serax, and Restoril. Other frequently used anti-anxiety medications are buspirone, a non-benzodiazepine used to treat Generalized Anxiety Disorder (GAD); Klonopin for social phobia; and Ativan is helpful for panic disorder (NIMH, 2003).

Other psychotropic medications. While the number of college students taking antidepressant and anti-anxiety medications appears to be increasing, research (Grayson et al., 1997) indicates a rise in student use of other psychotropic medications. Grayson et al.'s (1997) analysis of data found that student use of Ritalin, commonly prescribed for Attention Deficit Hyperactivity Disorder (ADHD), is increasing. In addition, Sharpe, Bruininks, Blacklock, Benson, & Johnson (2004) report that the number of students with serious mental disorders is now beginning to surpass the number of students diagnosed with learning disabilities and ADHD combined. Students with more severe problems, such as psychotic depression, bipolar depressions, and schizophrenia are also attending

college despite major symptomology; management of these various psychotic disorders often includes taking anti-psychotic medications like Risperdal (resperidone), Zeldox (ziprasidone), Seroquel (quetiapine), Zyprexa (olanzapine), and Abilify (aripiprazole; Bezchlibnyk-Butler & Jeffries, 2003; Murray, 2006).

Limitations of Existing Research

While the bulk of past literature examines types and prevalence rates of mental health problems among college students, research that is more current primarily focuses on whether or not college students are exhibiting more severe psychopathology than in the past. There are a few studies examining student psychotropic drug use and counseling experience prior to enrolling in colleges but no studies to date have further analyzed the relationship between these variables and total number of therapy sessions students are attending at campus counseling centers. Furthermore, no studies to date have examined, specifically, what types of psychotropic medications students are taking (e.g., antidepressants or anxiolytics) and duration of therapeutic treatment at campus counseling centers.

Present Study

The present study will add to the existing literature by examining the relationships that exist between prior student counseling and psychotropic medication experience and duration of treatment (e.g., total number of therapy sessions) and specific types of psychotropic medications students are taking and duration of treatment. The hypotheses for this study are as follows: 1) Students who have received mental health counseling prior to beginning treatment will remain in therapy significantly longer than students who have received no prior mental health counseling; 2) Students who have had prior psychotropic medication experience will remain in therapy significantly longer than students who have had no psychotropic medication experience; and 3) Students who have reported taking anti-anxiety or anti-depressant medications will stay in therapy longer than students taking other types of psychotropic medications.

Method

Participants

Participants were collected from a pre-existing database. The data were collected from 279 college students who received services at Western Kentucky University Counseling and Testing Center (WKU-CTC). This represents 72% of all students (385) who sought therapy from WKU-CTC during the Fall 2005 and Spring 2006 semesters and 0.02% of WKU's student body. Participants' information was included in the database if the students consented to the use of their data for research purposes or other counseling center administrative purposes.

Student Population

Western Kentucky University's 2005-2006 Fall and Spring student population was 18,485. Of this population, 11,144 (60%) were female students and 7,341(40 %) were male students. In terms of ethnicity, there were 13,683 (74%) White, non-Hispanic students, 147 (0.8%) Hispanic students, 1,388 (7.5%) Black, Non-Hispanic students, 51 (0.3%) American Indian or Alaska Native students, 157 (0.8%) Asian or Pacific Islander students, and 175 (.9%) students whose ethnicity was Unknown.

WKU-CTC's student-client population during the Fall 2005 and Spring 2006 semesters was 385. Of the 279 students who consented to use of their data, 36.92% reported receiving prior therapy and 26.52% indicated they were taking psychotropic medication at time of intake. With reference to gender, 69.53% of clients were female, while 30.47% were male. Additionally, 78.49% clients indicated that they were Caucasian, while the remaining 21.51% of clients indicated that they were of a different

ethnicity. Of those, 8.6% reported they were African American, 3.58% indicated that they were multi-racial, 1.79% reported being Asian, and 2.15% indicated that they were Latino.

Services provided by Western Kentucky University's Counseling and Testing Center

WKU-CTC offers a variety of services to students, including individual, group, and couples counseling, outreach programming, consultation, and referral. The center also administers national and institutional exams. At the time services were provided, staff consisted of 11 members, and they are as follows: The interim Director, Coordinator of Training, Coordinator of Outreach, Coordinator of Sexual Assault Services, Staff Psychologist, Staff Counselor, Coordinator of Testing, an Office Associate, a Graduate Intern Student, and a Graduate Assistant and Student Assistant. Coordinators at WKU-CTC, as well as the staff counselor and psychologist, provide therapy treatment for students at WKU.

Duration of treatment and treatment modalities

Practitioners are not limited to a specific number of sessions and counseling sessions are approximately 60 minutes in duration. Practitioners work from their own personal theoretical orientations (e.g., humanistic or cognitive-behavioral approaches) and use a variety of therapeutic techniques based on client need. In addition, practitioners do not follow a brief model of therapy.

Design

The design for this study is a correlational study in which the dependent measure is total number of therapy sessions that students attended at WKU's Counseling and

Testing Center. The following three independent variables were evaluated: 1) whether students have or have not attended therapy sessions prior to entering therapy at WKU-CTC; 2) whether students have or have not taken psychotropic medications before entering therapy at WKU-CTC; and 3) types of medication. Additionally, the relationship between the predictors and the criterion were examined for differences in treatment outcomes that are mediated by race and gender.

Measures

Dependent Variable. The dependent variable was defined as the total number of therapy sessions attended. Duration of sessions is usually 60 minutes long.

Independent Variables. The first independent variable is a self-report measure of prior mental health counseling. This variable is a dichotomous variable scored such that 0 means no prior counseling and 1 indicates prior therapy received. The second variable is a self-report measure of prior psychotropic medication use, with 0 indicating students who have not taken psychotropic medications before entering therapy and 1 indicating students who have been prescribed psychotropic medications before entering therapy. The third variable is a self-report measure of different types of psychoactive medications that students were taking at the time they entered therapy. Psychoactive medications, often referred to as psychotropic drugs, are a group of medications that have major effects on psychological processes. They are intended to improve mental conditions, and some of these drugs include antidepressants, mood stabilizers, anti-psychotics, and anxiolytics (APA, 2007). For purposes of analysis, psychotropic medications were classified into three groups: anti-depressants, anxiolytics, and other psychoactive

medications. For each type of medication (e.g., antidepressants, anxiolytics), 0 indicates students entering therapy who were not taking a particular class of psychoactive medication and 1 indicates students entering therapy who were taking a particular class of psychoactive medication.

Demographics.

Demographic variables of race and gender were obtained from university records using the university classification system and were included in the WKU-CTC database.

Procedure

The archival data set was obtained from the WKU-CTC. All participants consented to release of information for purposes of research at WKU-CTC.

Results

The present study included data collected from 279 students from an archival database at Western Kentucky University's Counseling and Testing Center. In all, 103 participants acknowledged receiving prior therapeutic treatment, and 176 students indicated that they did not receive prior therapy services. Additionally, 73 participants indicated that they were taking psychotropic drug(s) before entering therapy, and 206 students acknowledged that they were not taking any type of psychotropic medication before beginning treatment. Table 1 provides a more detailed look at the demographic profile of WKU-CTC student-clients for the Fall 2005 and Spring 2006 semesters.

Table 1

Demographic Profile of Student Sample

	N	*Percent*
Gender		
Males	85	30.50
Females	194	69.53
Race		
Caucasian	219	78.49
African American	24	8.60
Latino	6	2.15
Asian	5	1.79
Native American	1	.36
Multi-racial	10	3.58
Unknown	14	5.02
Prior Therapy Experience	103	36.92
Prior Psychotropic Drug Experience	73	26.52
Mean Number of Current Therapy Sessions	4.04	
Range of Therapy Sessions	1 to 45	

This study also specifically examined students taking either antidepressant medications or anxiolytics and other psychotropic medications. Table 2 shows the number of students who were taking psychotropic medications and had therapy experience prior to attending therapy at WKU-CTC. Combinations of antidepressants, anxiolytics, and other psychotropic drugs were not considered in the analyses. In all, 14 students reported taking just an anti-anxiety medication, and 58 students indicated that they were taking some type of antidepressant medication. In addition, 21 students acknowledged that they were taking other types of psychotropic medications.

Table 2

Number of Students With Prior Therapy and Psychotropic Medication Experience

	Medication	
Treatment	Yes	No
Yes	37	66
No	36	140

Hypotheses 1 and 2 were evaluated using a two-way analysis of variance (ANOVA). A Bonferroni's Correction was used (Abdi, 2007), and alpha was set at $p < .017$. Hypothesis 1 states that students who have previously attended therapy will stay in therapy significantly longer than students with no prior therapy experience. Hypothesis 2

states that students who have been prescribed psychotropic medications prior to beginning therapy will remain in therapy significantly longer than students who are taking no psychotropic medications. Results of a 2 (Prior Therapy: Yes vs. No) x 2 (Prior Medication: Yes vs. No) revealed a main effect for prior therapy. The results indicated that students who received prior mental health counseling (M = 5.14, SD = 6.78) attended more total sessions than students who received no prior counseling (M = 3.40, SD = 4.17), F (1, 275) = 6.65, p = .01. There was no main effect for medication, F (1, 275) = .54, p = .46. Students who were taking psychotropic drugs (M = 4.61, SD = .62) prior to entering therapy did not attend more total sessions than students who were not taking psychotropic drugs (M = 4.07, SD = 3.40) prior to therapy. There were also no interaction effects noted, F (1, 275) = .57, p = 45.

Hypothesis 3 states that students who have reported taking anti-anxiety or anti-depressant medications will stay in therapy longer than individuals taking other types of psychotropic medications. The difference between types of psychotropic medications such as anxiolytics, anti-depressants, or other mood-altering medications was assessed using a 2 (Antidepressant Medication: Yes vs. No) x 2 (Anxiolytic Medication: Yes vs. No) x 2 (Other Psychotropic medications: Yes vs. No) analysis of variance (ANOVA). Results of the ANOVA did not indicate that students taking anti-anxiety medications before entering therapy (M = 3.33, SD = 1.53) stayed in therapy longer than students taking other psychotropic medications (M = 2.92, SD = 3.34), F (1, 67) = 2.68, p = .11. There was also no significant difference between students taking antidepressants (M = 5.43, SD = 5.89) and those taking other psychotropic medications (M = 2.92, SD = 3.34),

F (1, 67) = .24, p =.62. There were no interaction effects (all F values < 2.68, and all p-values > .11).

Other factors that could influence treatment were examined. Gender of the participants was analyzed using an independent samples t-test and results indicated no significant difference between women (n = 194, M = 4.12, SD = 5.48) and men (n = 85, M = 3.85, SD = 5.03) on the number of sessions attended t (277) = .40). Similarly, ethnicity was evaluated using a one-way ANOVA. There were no significant differences noted among people of different ethnicities F (6,272) = 1.90, p = .08, indicating that people of different ethnicities attended similar numbers of counseling sessions.

Discussion

Research (Benton et al., 2003; Cornish, et al., 2000; Gallagher, 2007; Grayson et al., 1997) consistently demonstrates that more students with mental health problems and/or diagnosable mental health disorders than in the past are attending universities. In addition, studies examining therapy and psychotropic drug use show increasing percentages of students entering universities with prior psychotropic drug and counseling experience. However, no studies have further examined the relationship between prior student therapy and psychotropic medication use and total number of counseling sessions students attend at campus counseling centers; furthermore, no studies to date have examined specific types of psychotropic medications students are taking while attending college and total number of counseling sessions. The purpose of the present study was to examine whether or not college students who have had prior therapy or psychotropic medication experience would attend more therapy sessions than students who have had no prior therapy or psychotropic medication experience. In addition, student use of anti-anxiety or anti-depressant medications and total number of sessions attended was evaluated.

Prior Therapy and Duration of Treatment

Hypothesis 1, which states that students who have had prior therapy experience stay in therapy significantly longer than those with no prior therapy experience, was found to be statistically significant. Some plausible explanations for this relationship are 1) college students who have prior therapy experience likely experienced problems as adolescents and seek further treatment to deal with new college stressors; 2) students who

have more severe mental health problems or disorders require more sessions in order to get better; and 3) students with prior counseling experience or knowledge may be more familiar, thus more comfortable, with the therapeutic process and stay in treatment longer than those with no personal experience or knowledge.

First, it is reasonable to conclude that students who experience problems with mental health as adolescents seek continuation of treatment for exacerbation of symptomology—or progression of disorder(s)—while attending college. Students contend with a multitude of new stressors (e.g., financial constraints) and are particularly vulnerable as they advance from one major developmental phase to another. Kessler and Wang's (2008) review of literature notes that most individuals with a history of mental disorders begin having problems during childhood or adolescence. They report that the average age of onset for mood disorders is mid-teens and that some anxiety disorders (e.g., phobias and separation anxiety disorder) and impulse-control disorders have the earliest age of onset distributions, age 4 to 20 and 5 to 11, respectively. Probst (2008) further asserts that 14% of adolescents, age 15 to 18, have major problems with depression and between 20% and 40% of these individuals continue to have persistent symptoms throughout adulthood. Probst, Kessler, and Wang's, as well as this study's findings, are particularly important, as it appears that many individuals who experience mental health problems as adolescents are likely to have major problems as young adults and throughout adulthood, particularly at more stressful periods in their lives. In addition, that research (Probst, 2008) findings suggest that individuals with mood disorders often experience major problems throughout adulthood is important, as it is congruent with

past research (Benton et al., 2003; Rimmer et al., 1982) indicating that depression has been consistently shown to be the most prevalent diagnosis on college campuses nationwide.

Clinically Significant Change (CS) and the Dose-Effect Relationship. It is also feasible that students who have more severe mental health problems or disorders require more therapy sessions in order to get better. Wolgast et al. (2005) and Anderson and Lambert's (2001) findings show that students who exhibit more severe mental health problems require more therapy sessions in order to achieve clinically significant change (CS). Results of both studies found that individuals who have more difficulties with mental health problems require at least 20 sessions to achieve CS as opposed to just 14 and 12 sessions, respectively. Furthermore, research (Draper et al., 2003; Kadera et al., 1996) based on the dose-response model, consistently reports findings that that the more sessions that individuals attend, the more likely it is that favorable treatment outcomes occur.

Finally, Gonzalez et al. (2002) note that college students who have personal experience with counseling have more favorable attitudes about mental illness and therapy than those who have no experience. Interestingly, these researchers also found that college students who simply read information about mental illness demonstrate improved attitudes toward help seeking at follow-up and more positive expectations about personal commitment of therapy at follow-up. Based on these findings, it seems likely that students with prior therapy experience are more familiar and comfortable with the therapeutic process, and, consequently, stay in treatment longer.

Prior Psychotropic Drug Use and Duration of Therapy

Hypothesis 2 predicted that students who were prescribed psychotropic medications prior to beginning therapy would remain in therapy significantly longer than students who were taking no psychotropic drugs. Hypothesis 3 further explored this relationship and predicted that students who were taking antidepressants or anxiolytics would stay in therapy longer than those taking other psychotropic medications. Findings did not support either hypothesis 2 or hypothesis 3, as no significant relationship between prior student use of psychotropic drugs and total number of sessions was found. Moreover, there was no difference among types of psychotropic medications students were taking and total number of sessions attended. On average, students who took anxiolytics or antidepressants attended the same number of sessions as those who took other psychotropic medications. Several plausible explanations for results of hypotheses 2 and 3 are addressed; in addition, some possible reasons for these findings are briefly mentioned.

Psychopharmacological treatment of mental illness has increased dramatically in the past several decades, and many psychotropic drugs have been shown to decrease significantly symptom severity in a relatively short period of time (approximately two to six weeks; NIMH, 2008). Thus, it is logical to assume that students who are taking psychotropic medications prior to entering therapy may be looking for a "quick fix" to help lessen symptomology, much as they experienced with psychopharmacological treatment. Psychotherapy is intended to treat core problems associated with symptomology and psychotropic medications typically treat symptomology related to

various mental health problems or disorders. Therefore, students may enter therapy and be unwilling or unable to take the time needed to address the underlying problems that cause symptomology. Forness, Sweeney, and Toy's (1997) review of literature notes that many practitioners express concern over the rise in psychopharmacology as treatment of mental disorders within the child and adolescent populations. They emphasize that programs and/or treatment for adolescent emotional and behavioral problems are being replaced by attempts to find a quick cure with medication use.

Another possible explanation for why students who are taking psychotropic drugs prior to entering therapy do not attend more therapy sessions is lack of knowledge or personal experience with the counseling process. Individuals often seek assistance from physicians, rather than mental health professionals, for relief of symptomology associated with mental health problems and/or disorders. Research (National Institute of Mental Health; NIMH, 2005) indicates that medical doctors often do not conduct appropriate evaluations of mental health symptoms, nor do they refer patients for further therapeutic treatment. Students already taking psychotropic medications who have had no prior therapy experience may choose to try therapy, feel uncomfortable with the therapeutic experience, and, in turn, discontinue treatment. Results from the NIMH's (2005) study on physicians' psychotropic drug prescribing practices reveal that any participant-actor who asked for a specific psychotropic medication was more likely to receive inadequate initial care (e.g., inappropriate psychotropic drug, lack of referral for mental health treatment, or no follow-up visit) than a participant-actor who did not ask for a specific psychotropic drug. More disturbingly, results found that physicians were more likely to make a

diagnosis (e.g., depression 88% versus 65% and adjustment disorder 50% versus 18%) if a participant-actor made a request for a particular psychotropic medication (e.g., Paxil) than if a participant-actor did not make a request for a specific type of medication.

Some other possible explanations are also important to note. First, students may discontinue therapy during more difficult times of the semester, such as mid-term and/or final examination periods. They may perceive that they have insufficient time for therapy because of a more demanding course load, and, as a result, "skip" therapy appointments or discontinue therapy altogether. Second, students may believe that family and/or friends should help with personal problems and that campus counseling centers are intended for education and resource purposes only.

Another explanation that merits attention is that students may perceive that others, particularly peers, may think they are "crazy" if they have mental health problems and seek therapy. Taking psychotropic medications is much easier to conceal than attending therapy sessions; therefore, students with mental health problems may choose to take medications rather than risk the stigmatization that often accompanies mental illness. Research shows that individuals have less than favorable attitudes about mental illness unless they have knowledge or personal experience with mental illness or the counseling experience (Gonzalez et al., 2002).

Limitations of Present Study

The present study has several limitations that necessitate addressing. Most notably, the archival data did not include treatment outcomes, the therapeutic alliance, student-client diagnoses, or duration of psychotropic drug use and therapy treatment prior

to receiving services at WKU-CTC. Other client characteristics that were not included in the data were ages and level in school.

Treatment Outcomes. Research (Anderson et al., 2001; Draper et al., 2003; Kadera et al.; Wolgast et al., 2005) examining the relationship between total number of sessions and treatment outcomes consistently suggests that more therapy sessions predicts greater improvement and more therapeutic benefit. While this paper suggests that students who attend more therapy sessions may have more favorable outcomes than those who attend fewer sessions, the data did not include measurement of treatment outcomes. Therefore, no determination can be made as to whether or not students made improvements. It is also imperative to note that student-clients may seek services at university counseling centers during the latter part of the semester, attend therapy for a few sessions, then reach a certain point in the semester (e.g., Christmas break) and discontinue therapy because they believe that their problems are solved. They may not return for therapy treatment until they experience further problems or crises. Furthermore, practitioners at university counseling centers may see an influx of students with more serious mental health problems at certain periods during the semester and may need to refer these students to other mental health practitioners because of lack of time and/or full case loads.

The Therapeutic Alliance. Research shows that, more than any other aspect of therapy, the quality of the relationship between therapist and client determines client satisfaction with treatment and treatment outcomes (Kim, Kim, & Born, 2008). However, in the present study, explanation of results concerning total number of sessions that

students attended should be interpreted with caution, as the therapeutic alliance may have factored into duration of treatment. For instance, students with prior therapy and/or psychotropic drug experience may have discontinued therapy after just a few sessions because they were dissatisfied with their therapists. Conversely, students may have had positive experiences with their therapists and stayed in therapy longer.

Student Diagnoses. There was also no data on student-client diagnoses, or degree of symptom severity, prior to entering counseling at WKU-CTC. As a result, it is impossible to determine precisely what types of mental health disorders or problems with which students were contending or severity of mental illness. In addition, no inferences can be made about prevalence rates of mental health disorders within this college population. Furthermore, because of lack of student diagnoses, it cannot be determined if students with more severe mental health problems actually attend more total sessions than individuals with less severe mental health problems and/or disorders.

Duration of Psychotropic Drug Use and Therapy Treatment. Some students under study entered therapy at WKU-CTC with prior psychotropic medication experience. Yet, no information was included in the data noting student duration of psychopharmacological treatment prior to entering therapy at WKU-CTC. As a result, it is not possible to extrapolate the degree to which these medications affected symptomology and students' help-seeking attitudes (e.g., a quick fix for symptomology).

Assumptions have also been made that students with prior therapy experience stay in therapy longer because of personal experience and familiarity with the therapy process; likewise, it has been postulated that these students may have more severe mental health

problems or disorders that require further therapy treatment. However, the number of therapy sessions students attended prior to intake at WKU-CTC was not documented nor was history of severity of mental health problems. Therefore, the degree to which student familiarity with the counseling experience may have affected total number of sessions is not possible to ascertain and it cannot be said for certain that students with prior therapy experience have more severe problems and stay in therapy longer.

Student Ages and Level of Education. Lack of data on student ages and levels in school compromises this study's ability to generalize findings to other college-age populations and students at different levels in school. In addition, any inferences made, based on individuals who are college-age (approximately age 18 to 22), must also be interpreted with caution. For example, a portion of student-clients may be much younger than the typical college-age student and contending with different problems than those typically experienced by students age 18 to 22. Likewise, a portion of student-clients may be nontraditional students and dealing with different types of problems or stressors. These limitations may affect inferences made in regards to findings.

Geographic Region. The geographic region in which the archival data was evaluated is another limitation of this study. Data collection was limited to a largely rural southern region of the country, the university student population was predominately Caucasian, and there are many students who are the first in their families to attend college. Because these characteristics may differ from college students in other areas of the country, these results may not generalize to all college students. For future investigation, researchers could expand the study to other regions.

Future Research.

Past and more current research focuses on types of stressors, prevalence rates, treatment modalities, and severity of mental illness of college students at campus counseling centers. However, there is a paucity of literature on student mental health prior to attending college, and no studies to date further examining prior student mental health and continuation of treatment at campus counseling centers. Future studies should investigate specific types of mental health problems/disorders with which students contend prior to enrolling in college and evaluate progression of symptomology or disorders at the end of therapy treatment at campus counseling centers. In addition, it would be interesting to see what types of treatment modalities (e.g., cognitive-behavioral, family systems and behavioral) campus counselors use to treat students with already existing or more severe mental health problems or disorders. Campus counseling center directors and practitioners would also benefit from knowledge gained of studies that specifically examined student attitudes of psychotropic drug use and therapy at campus counseling centers, as well as student and therapist viewpoints of the therapeutic alliance and treatment outcomes.

Finally, a dearth of literature on student mental health problems at different levels necessitates further investigation. The few that exist primarily focus on freshman and senior stressors and concerns. Thus, future research might examine these variables, looking specifically at stressors, prevalence rates, and degree of severity of mental health problems that college students experience at all levels.

Conclusion

While there is marked lack of data in several areas, and, unfortunately, no existing data available to make comparisons across the years, this study is important because there is no existing literature examining the relationships between prior college student therapy and psychotropic drug experience and duration of therapeutic treatment. Of the 279 students that consented to use of the data, a large number (nearly 40%) acknowledged receiving therapeutic treatment prior to entering therapy at WKU-CTC. Grayson et al. (1997) found that nearly 60% of their clients had prior therapy experience, a large increase from past years. In addition, over 25% of WKU-CTC student-clients indicated that they were taking some type of psychotropic drug(s) prior to entering therapy. Benton et al. (2003)'s findings suggested that nearly 23% of their counseling center clients entered therapy already taking psychotropic medications, also an increase from previous years. However, Benton et al.'s results found a decrease in the average number of therapy sessions students attended. They revealed that their counseling center practitioners' use of brief model of therapy is a viable explanation for this finding.

Upon examination of findings, it appears that students with prior psychotropic drug experience do not necessarily stay in therapy longer. However, lack of personal experience or knowledge of the therapeutic process due to the ease with which individuals can attain psychotropic medications from physicians is a feasible explanation. In addition, the desire for a "quick fix" to help lessen mental health symptomology may also explain nonsignificant results. It also appears that students taking anxiolytics and antidepressants do not stay in therapy longer than those taking other types of

psychotropic medications. However, important information should be considered: In all, 5% of the college students report taking an anti-anxiety medication and nearly 25% of the students indicate that they were taking some type of antidepressant medication while attending college. This finding is congruent with other research (Benton et al., 2003; Grayson et al., 1997), as it appears that more college students are taking antidepressants than any other type of psychotropic drug while attending college.

Incontrovertibly, individuals who have prior therapy experience stay in therapy longer than individuals with no prior exposure to therapy. If these individuals require and seek further therapeutic treatment for more severe mental health problems, then this finding has important implications for campus counseling centers. The trend for counseling center practitioners' use of a brief model of therapy in order to accommodate an ever-increasing number of students should be scrutinized, as some students may need more extensive therapy to treat more severe problems or diagnosable disorders.

That students with prior therapy exposure may simply be more familiar, and, in turn, more comfortable with the therapy process than those with no exposure to therapy also has important connotations for universities nationwide. Research has shown that individuals have more favorable attitudes towards mental illness and therapy if they are merely exposed to information about mental illness and therapy. Universities may want to consider implementing educational programs on their campuses in order to familiarize students with mental illness and the therapy process. Educational interventions may very well prompt those students experiencing significant problems with mental health to seek therapeutic treatment.

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Appendix A

- According to the DSM IV-TR (2000), mood disorders include Major Depression, Bipolar depressions, Dysthymia, Cyclothymia, Substance-Induced Mood Disorder, and Depressive Disorder, Not Otherwise Specified (NOS).
- According to the DSM IV-TR (2000), anxiety disorders include Generalized Anxiety Disorder (GAD), Obsessive Compulsive Disorder, Panic Disorder, Posttraumatic Stress Disorder, Social Anxiety Disorder and Specific Phobias.
- Criterion: Participants will be limited to students who received counseling services during the Fall 2005 and Spring 2006 semesters.
- Total number of sessions was obtained from WKU-CTC records.

Appendix B

Human Subjects Review Board Approval

WESTERN KENTUCKY UNIVERSITY
Human Subjects Review Board
Office of Sponsored Programs
301 Potter Hall
270-745-4652; Fax 270-745-4211
E-mail: Sean.Rubino@wku.edu

In future correspondence please refer to HS09-069, November 19, 2008

Leigh Ann Mathis
c/o Dr. Rick Grieve
Psychology
WKU

Dear Leigh Ann:

Your revision to your research project, Student Psychotropic Drug Use and Counseling Experience, was reviewed by the HSRB and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects' welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

1. In addition, the IRB found that you need to orient participants as follows: (1) signed informed consent is not required as data is being retrieved from an archival data set; (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data. (3) Appropriate safeguards are included to protect the rights and welfare of the subjects.

This project is therefore approved at the Exempt Review Level

2. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office of Sponsored Programs at the above address. Please report any changes to this approved protocol to this office.

Sincerely,

Sean Rubino, M.P.A.
Compliance Manager
Office of Sponsored Programs
Western Kentucky University

cc: HS file number Mathis HS09-069

--Sean Rubino, MPA
Compliance Manager
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