

## **Depression Among College Students: Trends in Prevalence and Treatment Seeking**

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**ABSTRACT** - In a study of 182 undergraduates, a substantial proportion of the students in this sample reported significant symptoms of depression, yet only a minute number of them had ever sought treatment for their ailments. Further, the college men in this study appeared to be suffering to a greater extent than would be predicted based upon past epidemiological studies. The implications and limitations are reviewed, as are the suggestions for future research.

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**F**or many students, the transition from high school to college is filled with anticipation, excitement, and enthusiasm. Along with the positive feelings often associated with university life, the new college student has many challenges to overcome. Geographic changes, the rigors of academics, the loss of familiar surroundings, and an entirely new interpersonal environment are just a few of the changes that college students must face. In turn, there are a number of professionals in the university setting who are charged with the responsibility of responding to the challenges experienced by the student body. Student development leaders, residence hall directors, academic advisors, and counseling center personnel all have important roles in facilitating a positive learning experience for their students. Moreover, such professionals are also in a unique position to develop policies, procedures, and programs to identify and assist particular students who are not making an effective adjustment to the college milieu.

Given the multiple contexts in which student service professionals interact with college men and women, remaining alert to potential obstacles and indications of distress is important, especially for students making the transition for the first time. Indeed, from a developmental perspective, the age at which

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many individuals begin their higher education (i.e., late teens) has important implications for adjusting effectively to the college landscape. Meeus, Iedema, Helsen, and Vollebergh (1999) suggested that the process of identity development accelerates during the college years given the increased opportunities and freedom to explore various careers, lifestyles, and worldviews that were not as prevalent during high school. Navigating the process of identity development can lead to some bumps in the road, including self-doubt, social withdrawal, loneliness, lowered self-esteem, and even depression (Lewinsohn, Rohde, & Seeley, 1998). Further, in a recent survey involving 1,455 students, Furr, Westefeld, McConnell, and Jenkins (2001) reported that of those students who experienced depressive symptoms since beginning college, the four most commonly cited reasons for their depression were academic problems, loneliness, economic problems, and relationship difficulties.

So, although many college students are able to experience the pleasures and novelties of college life without experiencing debilitating adjustment difficulties, a significant number of college students develop elevated levels of depression during these formative years. Based upon a number of recent epidemiological studies, the lifetime prevalence estimate for depressive disorders is approximately 17% (Kessler, 2002). The one-year prevalence rate is 10% and the average age of onset for a first episode (now mid 20's) has dropped steadily over the past several decades (Cross-National Collaborative Group, 1992). It also appears that individuals between the ages of 15 and 24 are the most likely group to have had an episode of major depression within the past month (Blazer, Kessler, McGonagle, & Swartz, 1994). In addition, Lewinsohn, Hops, Roberts, Seely, and Andrews (1993) reported that approximately 1 in 5 youth experience an episode of depression before the end of high school and nearly half of those experience a relapse in early adulthood (Lewinsohn, Rohde, Klein, & Seeley, 1999). Thus, many first episodes of depression occur during the college years, especially as the risks for psychiatric illnesses are magnified during times these times of transition and adjustment to a novel academic landscape.

In addition to the high rates of depression among adolescents and young adults, depression during this period is correlated with impaired social functioning, substance abuse, school difficulties, and future morbidity (Wells, Kataoka, & Asarnow, 2001). Several studies have documented the relationship between depression and adverse outcomes among college students, including psychological distress (Adlaf, Glicksman, Demers, & Newton-Taylor, 2001), diminished social support (Lin, Woelfel, & Light, 1985), increased use of tobacco and alcohol products, significant changes in sexual behavior (Douglas et al., 1997), relational difficulties (Hays, Wells, Sherbourne, Rogers, & Spritzer, 1995), and academic impairment (Haines, Norris, Kashy, 1996; Heiligenstein & Guenther, 1996).

Given the prevalence of depression and its correlates among college men and

women, it is important to understand the extent to which students seek help for these ailments. Moreover, in light of the data that early-onset depression is associated with a number of negative outcomes, expeditious surveillance, referral for assessment, and adequate treatment is critical in reducing the likelihood of future morbidity for those who experience depression early in life (Keller, Lavori, Beardslee, Wunder, & Ryan, 1991; Kessler, Zhao, Blazer, & Swartz, 1997). Unfortunately, many young adults, including college students, do not typically seek professional consultation on their own accord when such concerns arise. For example, in a study of depressed college students, Oswalt and Finkelberg (1995) reported that less than one-third sought assistance through the college counseling center. Although many of the more common non-professional alternatives that were used were adaptive (e.g., friends, parents, exercise), the use of alcohol was more frequently cited than psychotherapy. In another study involving depressed college students, only 17% of those reporting depression sought counseling (Furr et al., 2001).

Equally poignant are the results from several studies that suggest depression is chronically under-treated in the population at large. It has been estimated that only one-third of those with clinically significant levels of depression receive any form of treatment (Shapiro et al., 1984). In addition, it has been reported that even for those who seek treatment, only 1 in 10 receives appropriate dosages of therapy (Hirschfeld et al., 1997) regardless of whether it is psychotherapeutic, pharmacologic or combination of the two, despite the well-established effectiveness of systematic interventions for depressive conditions (Elkin et al., 1989).

Related to prevalence and treatment seeking behavior is the issue of sex differences among depressed college students. Current epidemiological studies indicate that although the sex ratio of depression is 1:1 for younger cohorts (Twenge & Nolen-Hoeksema, 2002), during middle adolescence the ratio shifts so that women experience depression nearly twice as often as men (Nolen-Hoeksema & Girgus, 1994), with lifetime prevalence rates for women estimated to be between 10% and 25% and between 5% and 12% for men (APA, 2000). There are a number of factors that have been suggested as being responsible for this shift including changes in emotional display rules that influence males to be more stoic and non-disclosing about their feelings as they get older (Zamarripa, Wampold, & Gregory, 2003), increased body image dissatisfaction among females that increase their risk for mood disturbances (Allgood-Merten, Lewinsohn, & Hops, 1990), and a greater tendency for females to have ruminative cognitive styles that in turn, make them more vulnerable to depression (Nolen-Hoeksema, Larson, & Grayson, 1999).

Other researchers have suggested that the divergent prevalence rates between men and women are due to other factors. For example, in a recent study, Cochran and Rabinowitz (2003) hypothesized that men are not "adequately counted" (p.132) in typical epidemiological studies, due in part to the cultural and gender

factors listed above, but also due to the fact that their depressive symptoms are more likely to be obscured by other symptom presentations. Although the symptom profiles for men and women based on DSM criteria are similar (Simpson, Nee, & Endicott, 1997), there are a number of documented masculine specific patterns of manifesting and expressing depression among men. For example, depressed men often exhibit higher levels of alcohol consumption and dependence (Grant, 1995), antisocial and narcissistic traits (Black, Baumgard, & Bell, 1995), work-related problems (Vrendenburg, Krames, & Flett, 1986), and interpersonal conflict (Williamson, 1987). These factors may obscure or substitute for the diagnosis of depression.

Overall, it appears that there are a number of important issues relevant to depression prevalence rates among college men and women. Equally important is the issue of treatment seeking behavior among potentially distressed college students. Indeed, by informing these questions, professionals in these settings might be better equipped to respond to such trends by establishing broad surveillance, prevention, and even intervention policies and procedures. Thus, the primary purpose of the present study was to assess the proportion of college students with elevated depressive symptomatology and to determine whether there was evidence of differential rates of depression among college men and women. The secondary purpose of the study was to evaluate trends in treatment seeking for those who are experiencing elevated levels of depression in college in light of the empirical findings that suggest depression is a chronically under treated condition.

## Method

### *Population and Sample*

The population under study was the study body at a rural mid-size southeastern university with an enrollment of approximately 13,000 mostly young (mean age = 21; 95% < 25 years old) Caucasian (91.5%) students, half of which were female. A total of 182 students (83 female, 99 male; mean age = 19.5 years,  $SD = 1.4$ , range = 18 to 28 years) provided informed consent and participated in the study over the course of two semesters (fall and spring).

### *Materials*

*Depression.* Participants' level of depression was assessed by multiple methods. One question describing the lifetime incidence of the symptoms of depression was developed using diagnostic criteria from the Diagnostic and Statistical Manual - Fourth Edition Text Revision (DSM-IV-TR; APA, 2000): "Have you *ever* experienced the following symptoms for a period of *two or more consecutive weeks*: sadness, concentration problems, fatigue, sleep, or appetite problems?"

In addition to the symptom-based question described above, current level of depression was assessed with the Depression scale of the Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1994). This dimension reflects a range of the signs of clinical depression including symptoms such as apathy, loss of energy,

and hopelessness. Participants were asked to report how often these symptoms "distressed or bothered" them in the past seven days using a 5-point rating scale ranging from "not at all" (0) to "extremely" (4).

*History of Depression Treatment.* One pair of questions assessed students' history of undergoing treatment for depression: "Have you ever been treated for depression?" and "If yes, what kind of treatment(s) have you received?" To the second question participants were to indicate all that applied from the following options: psychotherapy, medication, other. A second pair of questions, similar to the first pair, assessed current treatment for depression: "Are you currently undergoing treatment for depression?" and "If yes, what kind of treatment(s) are you receiving?" To the second question participants were to indicate all that applied from the following options: psychotherapy, medication, or other.

### **Procedure**

Students were recruited by posting and making announcements throughout campus (e.g., bulletin boards in classrooms within the psychology building, academic departments, student center). The research was approved by the university's Institutional Review Board and participants were treated in accordance with the "Ethical Principles of Psychologists and Code of Conduct" (APA, 1992). Participants met with a research assistant at scheduled times and were administered a survey packet containing the measures described above. In a classroom setting, the order of the scales was counterbalanced across participants to minimize any possible order effects. Participants took as much time as necessary to anonymously complete the questionnaires and submitted them to the research assistant when finished (after approximately 60 minutes).

### **Results**

#### ***Prior History, Current Symptom Level, and Treatment of Depression***

As displayed in Table 1, 43.4% of the total sample indicated that they had experienced depressive symptoms in their lifetimes. The percentage was equivalent for females (48.1%) and males (39.4%;  $X^2 = 1.07$ ,  $df = 1$ ,  $p = .30$ ). In addition, SCL scores for depression were greater than scale norms for nonpatient adult samples. Women in our sample reported higher SCL-90-R depression scores ( $M = .68$ ,  $SD = .64$ ) than scale norms ( $M = .46$ ;  $t_{77} = 3.04$ ,  $p = .003$ ,  $d = .34$ ). Similarly, men in our sample reported higher SCL-90-R depression scores ( $M = .70$ ,  $SD = .75$ ) than scale norms ( $M = .28$ ;  $t_{91} = 5.40$ ,  $p < .001$ ,  $d = .56$ ).

Despite the high levels of depression reported by our participants, only 12% of the sample had ever been treated for depression (13.2% of women, 11.1% of men). When examining only those participants whose SCL-90-R Depression scores reached "clinical" levels (i.e.,  $T \geq 65$ ; raw scores  $\geq 1.27$  for women and  $.87$  for men), the situation was really no better. Five women in the sample had SCL-90-R Depression scores above this level and only one (20.0%) was currently receiving treatment (medication). Seventeen males reached this level

of SCL-90-R Depression, and only five (29.4%) were currently receiving some form of treatment (one was receiving medication and psychotherapy, four were receiving medication only).

**Table 1**  
*Frequency of self-reported depression and treatment seeking*

|                            |        | <i>n</i> "No" responses | <i>n</i> "Yes" responses |
|----------------------------|--------|-------------------------|--------------------------|
| Depression symptoms ever?  | Total  | 103                     | 79                       |
|                            | Female | 43                      | 40                       |
|                            | Male   | 60                      | 39                       |
| Depression treatment ever? | Total  | 160                     | 22                       |
|                            | Female | 72                      | 11                       |
|                            | Male   | 88                      | 11                       |
| Current treatment?*        | Total  | 176                     | 6**                      |
|                            | Female | 82                      | 1                        |
|                            | Male   | 94                      | 5                        |

*Note:* \*Among those participants with an elevated ( $T = \geq 65$ ) score on the SCL-90R Depression Scale; \*\* Five out of the six students receiving any form of treatment were taking medication without psychotherapy.

## Discussion

The results from this study provide evidence that a substantial number of college students with elevated symptoms of depression go without treatment at a mid-size, rural southeastern university. Twenty-two of the 182 students evaluated reached a commonly described guideline for clinical levels (i.e.,  $T \geq 65$ ) of depression (5 female, 17 male) as measured by the SCL-90-R. Thus, approximately 12% the sample reported currently elevated depressive symptoms, which is commensurate with one-year prevalence rates of depression previously noted. However, of the 22 students with elevated SCL-90-R depressive symptoms, only 6 (27.2%) were undergoing treatment at the time of the study. Furthermore, among the 6 students currently in treatment, most were being treated exclusively with medication (5; 83.3%) with only one student being treated with a combination of medicine and psychotherapy (16.6%).

These data are unsettling and suggest that a substantial number of college students do not either request and/or receive adequate treatment when they are

experiencing elevated symptoms of depression. Further, even for the few that sought treatment, psychotherapy was utilized by only one participant. These results are consistent with several previously noted studies and clearly illustrate the need to carefully assess, diagnose, and expeditiously treat emerging psychiatric symptoms in college students. Further, given the significant correlations between smoking, stress and symptoms of depression across the entire sample, the students who are at higher risk for significant psychiatric symptomatology are engaging in behaviors that further compromises their health and increase potential for future morbidity.

Perhaps an equally striking finding from the present study is the high proportion of male college students expressing elevated levels of depression. Indeed, the actual number of males with elevated depressive symptoms exceeded the number of women (17 vs. 5; ratio of male-to-females in the sample was 99-to-83). This finding is inconsistent with the general epidemiological trend that indicates depression in women is almost twice as common as depression in men (APA, 2000). However, as described previously, the recent work by Cochran and Rabinowitz (2003) and others suggests that epidemiological studies under identify men due to socialized gender roles, whereby stoicism is favored among men and that disclosing information about emotional distress is a sign of weakness (Blazina & Watkins, 1996; Ruble & Martin, 1998). Another reason that depression is not readily identified among men is due to the possibility that their mood disturbance is obscured by co-occurring externalizing symptoms such as substance abuse problems, antisocial behavior, and interpersonal conflicts. Indeed, Davies et al. (2000) found that male college students identified significant concerns about alcohol and substance abuse, but at the same time, were reluctant to seek help for emotional pain for fear of being judged negatively by their peers.

It is possible that the higher than expected levels of depressive symptoms among men in the present study, were due, in part, to differences between our survey and techniques used in typical epidemiological studies of depression. In our study, students gave anonymous self-reports of their psychological symptoms without the expectation of talking directly to anyone or to seek help for their ailments. In turn, under the condition of anonymity, men in particular may have been more willing to disclose emotional distress without the pressure of revealing the information in an ostensibly more vulnerable situation (i.e., face to face interaction with a clinician, student health service professional, resident advisor). Several studies have provided support for the notion that men generally have negative opinions towards emotional disclosure and help-seeking. For example, in a study regarding help seeking attitudes among college men, Blazina and Watkins (1996) reported that men were more inclined to subscribe to the notion that it was not socially acceptable to express emotions freely for fear of being censured. Further, Blazina and Marks (2001) studied men's emotional reactions to help-seeking scenarios and reported that the men in their study,

especially those with little or no experience with psychotherapy, had negative reactions to the notion of seeking assistance for personal distress. Finally, Gloria, Hird, and Navarro (2001) reported that when compared to women, male college students had less positive attitudes towards seeking help from a university-based agency.

These findings are relevant for many professional groups in the college setting. In particular, routine monitoring and educational programs should become regular components of campus culture to better identify and provide services to the underserved group of college men and women with elevated levels of depression. In fact, during 2003, the National Institute of Mental Health instituted an educational campaign designed to educate the public about the high proportion of depressed men who do not seek help for their condition. Further, a National Depression Screening Day is now regularly implemented by counseling center personnel at several colleges and universities around the country which is another way to educate the public about the importance of seeking professional evaluation and treatment of depression. Student service professionals (e.g., counseling center staff, residence hall directors, medical personnel) and student paraprofessionals (e.g., resident advisors) can implement broad surveillance programs to help identify and encourage potentially distressed students to seek adequate help. Certainly the success of such outreach programs depends on the programmatic and financial support of those who directly and indirectly supervise student service professionals, including university administration.

However, these data must be discussed with three important caveats. First, the present study comprised students from a rural university. Thus, due to either perceived or actual limitations in available mental health or counseling services, students may have not sought treatment as frequently as students residing in urban or suburban university settings. This issue merits further inquiry as its investigation in the extant literature is limited. Second, we did not conduct comprehensive clinical interviews which may have provided corroborating evidence of the presence of depressive disorders among those with elevated symptoms. We recommend that future researchers studying this population attend to subjective symptom reports, paper and pencil clinical instruments, and structured clinical interview data. Finally, our sample was predominantly Caucasian, thus we cannot evaluate whether these findings might be applicable to more culturally diverse samples. Nonetheless, it seems reasonable to conclude that a high proportion of college students have elevated levels of depressive symptoms that go without treatment and that student development professionals are in a good position to provide the necessary services to intervene.

In summary, the results from the present study suggest that (a) there is evidence of elevated yet untreated depression within a college sample, and (b) college men appear to be suffering to a greater extent than would be predicted based upon past epidemiological studies. Consistent with these data, we suggest

that more should be done to identify and help students who could be described as the underserved "walking wounded." It is well-documented that providing the necessary treatment to depressed individuals when the symptoms first emerge is a way to prevent future illness, both medically and psychiatrically (Elkin et al., 1989).

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