Mental Health Services: Use and Disparity Among Diverse College Students

Beth Rosenthal, DSW; W. Cody Wilson, PhD

Abstract. Objective: In this empirical study, the authors examined (1) actual use of counseling for emotional problems and (2) the assumptions that ethnicity, sex, social class, and psychological distress are associated with disparities in use of counseling. 

Participants: Participants were 1,773 diverse undergraduate students at an urban university. Methods: The authors collected data via self-administered questionnaires between 1999 and 2005; they used a cross-sectional correlational research design, including analysis of variance statistical procedures. Results: Students’ level of counseling use (10%) was similar to that estimated for a national college sample. Students reporting higher levels of distress were more likely to use counseling; however, more than three-fourths of students who reported clinically significant levels of distress had not received counseling. Conclusions: The authors observed no disparities in use of mental health services in terms of sex, ethnicity, and socioeconomic status.

Keywords: college health, counseling, disparity, ethnicity, mental health

Concern about the underutilization of mental health services among youths and the existence of disparities in the use of mental health services have resulted in the establishment of specific mental health service policy goals such as Healthy People 2010,1 Blueprint for Change: Research on Child and Adolescent Mental Health,2 and the Five-Year Plan for Reducing Health Disparities.3 The goals of these policies are to increase use and decrease disparities associated with demographic variables such as sex, ethnicity, and socioeconomic status (SES). These concerns are especially salient on college campuses where mental health is thought to be a critical factor in students’ academic success and where there is a perception that the level of psychopathology is increasing.5-9

Information about college students’ use of mental health services is quite limited, however; for example, Stone and Archer state that “few counseling centers publish systematic and ongoing research.”10(p541) Researchers11-15 publishing empirical literature on student use of mental health services tend to study not actual use of mental health services but rather attitudes toward help seeking or intentions to seek help. The best estimate of college students’ use of counseling is based on a survey of a national sample of directors of college counseling centers; results indicate that 10% of the student body uses campus mental health facilities each year.8 Data on disparities in use of counseling among college students are also quite limited, and existing studies are neither extensive nor of high quality.10

Underutilization and disparity are both concerned with differential use of mental health services. Because mental health services are aimed at relieving negative psychological symptoms, differential use (disparity) between those suffering from distress and those not suffering from distress is desirable. Underutilization is an evaluative term applied to situations in which individuals who might benefit from services do not use them. Disparity is also used evaluatively to describe situations in which members of a social group do not use services to the same extent as members of another group. The concern is that members of certain social groups do not use services commensurate with their needs.

Differential use of mental health services may result from 2 general types of situations: differential need for services and differential social values and resources that inhibit use of services when need exists.16 Three variables have received a considerable amount of attention in the literature as potentially related to disparities in use of mental health services: sex, ethnicity, and SES.1,16,17 Experts often hypothesize that females, the poor, and members of minority ethnic groups...
experience higher levels of stress from social oppression and discrimination and hence have higher levels of psychological distress and, therefore, greater need for mental health services.\textsuperscript{18} Empirical research on college students supports the hypothesis that women have higher levels of stress than do men (but the effect size is small; $r = .15$); research does not support the hypothesis that minority ethnic groups differ in level of stress.\textsuperscript{19} The issue of whether differential need for mental health services—as associated with sex, ethnicity, and SES—accounts for disparities in use of such services is still open to debate.

Experts often also hypothesize that social values associated with being male, in a minority ethnic group, and of low SES inhibit the use of mental health services, resulting in lower levels of use among these groups, even when needs are similar.\textsuperscript{1,20–22} However, little credible evidence regarding these hypotheses exists for college students.\textsuperscript{10,23,24} The empirical information that is available focuses on attitudes toward help seeking and intentions to seek help rather than on actual use of mental health services.\textsuperscript{11–15} The few researchers who have examined actual counseling have found limited, mixed evidence.\textsuperscript{25–29}

In this article, we present an empirical study of actual use of counseling for emotional purposes in the prior 6 months (encompassing the first semester in college) among a large sample of diverse undergraduate students. We examined the assumptions that the variables ethnicity, sex, social class, and psychological distress are associated with disparities among college students in use of counseling for emotional problems. We tested several sets of hypotheses: (1) The use of counseling for emotional problems is positively related to the need for such counseling as indexed by the level of psychological distress; (2) The variables sex, ethnicity, and SES are related to the frequency of use of counseling; (3) The variables sex, ethnicity, and SES are related to the need for counseling; and (4) The variables sex, ethnicity, and SES are related to the use of counseling when the level of psychological distress is statistically controlled.

**METHODS**

We collected data via a printed self-administered questionnaire; trained undergraduate and graduate research assistants who were diverse in terms of sex, ethnicity, and SES administered the questionnaires in multiple classroom settings. They invited students to participate and informed them that (1) they were not required to do so, (2) their teachers would not know whether they had participated, (3) they could stop at any time, and (4) there was no penalty for nonparticipation. The questionnaire required approximately 30 minutes to complete. The Institutional Review Board for the Protection of Human Research Participants in each of the 2 academic institutions in which we collected data approved the research.

**Sample**

The sample included 1,773 second-semester college students who had attended high school in New York City and who were, at the time of data collection, students in one of 2 commuter colleges in the same university system, both of which were located in the borough of Queens, New York City. Students were enrolled either in a 4-year baccalaureate college ($n = 1,342$) or in a 2-year community college ($n = 431$). In the 2-year college, we invited all students enrolled in a required first-year student development course to participate in the research. In the 4-year college, we invited all students enrolled in an elective student development course or in a beginning psychology course taken by the majority of students in the college to participate. More than 95% of students invited to participate did so.

We collected data between 1999 and 2005; because we found no differences in data among the years, we combined all 7 years’ data into a single sample. The 2 college subsamples were similar in level of education (all were second-semester college students), geographic location, living arrangements (both colleges are commuter colleges), and distribution of the study’s outcome variable (use of counseling).

The sample comprised 68% women and 32% men. The mean (as well as the modal and median) age was 18 years; ages ranged from 16 to 20 years ($SD = 0.80$). More than half (62%) of the students were born in the United States; all had attended high school in New York City. The median household income was approximately $31,000 and ranged from $15,000 to $100,000. (The 2002 median income in Queens was $39,285.$\textsuperscript{36}) Students were members of 4 ethnic groups: 13% Asian, 49% African American/black, 28% Latino, and 10% Caucasian/white. Among mothers of these students, 25% had less than a high school education, 28% were high school graduates, 24% had education beyond high school but were not college graduates, and 24% had graduated from college. In terms of family structure, 45% of the sample lived in 2-parent families, 30% in 1-parent families, 17% in extended families, and 8% had other types of circumstances.

**Measures**

Ethnicity was self-reported under the general procedures established by the US Census Bureau.\textsuperscript{16} Individuals first report whether they are Hispanic or Latino; they then report race in terms of Asian, African American/black, Caucasian/white, or American Indian. We classified all individuals reporting as Hispanic or Latino, regardless of race, as Latino; we classified individuals reporting as not Hispanic in terms of their self-reported race. We screened out of the sample potential participants who indicated that they were from 2 or more ethnic backgrounds; we also excluded the few individuals who reported their race as American Indian. The sample thus comprised only students who reported as Asian, African American/black, Latino, and Caucasian/white.

We measured sex by a single item asking the individual to report whether he or she was male or female.

We measured SES by combining answers regarding mother’s education and household income. Mother’s education level was obtained with a single item enquiring about
the highest educational level attained by the mother; the 6 responses ranged from elementary school to postgraduate. Household income was obtained with a single item asking individuals about household income from the previous year (clarified with the explanation, “the combined income of all members of your household”); the 7 responses ranged from < $15,000 to > $100,000. The theoretical range of this raw SES score is 2 to 13, but we collapsed SES scores into 4 groups approximating SES distribution in the larger US society: low (scores 2, 3, and 4) is characterized by mothers having less than a high school education and household income < $25,000; lower-middle (scores 5, 6, and 7) is characterized by mothers being high school graduates and household income being between $25,000 and $45,000; middle-middle (scores 8, 9, and 10) is characterized by mothers having some post-high-school education but not being college graduates and household income being between $35,000 and $55,000; and upper-middle (scores 11, 12, and 13) is characterized by mothers being college graduates and household incomes > $55,000.

We measured use of counseling from a single item: individuals reported whether, during the prior 6 months, they used “counseling services for emotional problems (by a psychologist, social worker, psychiatrist, pastor, etc.).” Response categories were never, once, and more than once.

We measured psychological distress by a 25-item scale comprising items in the 3 subscales (Anxious Arousal, Depression, and Anger/Irritability) of the Dysphoria Domain of the Trauma Symptom Inventory. Each item consisted of a brief phrase reflecting feelings of anxiety, autonomic hyperarousal, depressed mood, depressed cognitions, angry mood, or irritable affect; respondents reported how often they had experienced each feeling during the preceding 2 months using 4 fixed responses: never, seldom, sometimes, and often. Examples of items are: feeling jumpy, feeling depressed, and having trouble controlling your temper. We weighted each response from 1 to 4 and summed the items to form a single common-factor, quasi-interval scale, with scores ranging from 25 to 100. The score reflects the extent to which an individual is currently experiencing psychological distress symptoms. The scale has good reliability (α = .95) for college students; internal consistency reliability for this study was .94. Briere standardized the Trauma Symptom Inventory on a large national representative sample of adults. The Distress Scale has good criterion validity, differentiating between the standardization sample and a sample of psychiatric inpatients and outpatients with a large effect size. The 3 subscales of Psychological Distress are highly correlated (> .75) with conceptually similar scales in the widely used but older Brief Symptom Inventory.

For some analyses, we collapsed the Distress scores into 3 categories: low distress (scores from 25 to 37; no more than half the items were experienced as frequently as seldom), moderate distress (scores from 38 to 75; all the items were experienced either seldom or sometimes), and clinically significant distress (ie, psychological dysfunction requiring professional attention; scores > 75, and all items experienced at least sometimes and 1 or more items experienced often).

Research Design

We used a cross-sectional correlational research design and statistically controlled for a crucial potentially contaminating variable (level of psychological distress). By using purposive sampling, we controlled for age, education, geographic region, and urbanicity. By using a sample of 1,773 students, the research has a high level of statistical power to detect bivariate relationships. A weak relationship (r = .10) will exist 99% of the time using a criterion of p < .01 to reject the null hypothesis. The failure to reject the null hypothesis in the present study indicated that a relationship was either 0 or extremely small and of no practical importance.

Data Analysis

We used analyses of variance (ANOVAs) to test the independent relationship between each independent variable and each dependent variable; we used analyses of covariance (ANCOVAs) to test for a relationship between each of 3 independent variables (sex, SES, and ethnicity) and the dependent variable (use of counseling) while controlling for level of psychological distress.

RESULTS

Participants in this study of first-year college students reported a wide range of levels of psychological distress; the scores covered the entire possible range (25–100). Some students reported that they had never experienced any of the 25 symptoms during the 2-month period, whereas other students reported that they often experienced all of the symptoms. The typical (median) level of symptom manifestation is equivalent to seldom experiencing each of the symptoms in the scale. The mean score of the sample was 53, the standard deviation was 15.2, and the distribution was moderately positively skewed. These college students’ mean score on the Psychological Distress Scale was slightly higher (by one-third of a standard deviation) than the mean score for younger adults in the national standardization sample; this difference is equal to reporting 5 items as occurring seldomly rather than never on the scale. These levels of distress are similar to those reported for older adolescents in other studies. Approximately three-fourths (74%) of the participants were in the moderate distress category, 17% were in the low distress category, and 9% were in the clinically significant distress category (see Table 1). Most of the participants (90%) reported never using counseling for emotional problems during the previous 6 months; 5% reported that they had received counseling once during the period, and 5% reported that they had received counseling more than once during this period. The percentage of these diverse college students who had obtained counseling is similar to that estimated for a national sample of college students (see Table 1). There was a significant positive relationship between use of counseling and level of psychological distress.
This relationship contained both a linear and a curvilinear component (see Table 2). The linear relationship is manifested by a general increase in use of counseling with increased psychological distress; the curvilinear relationship is manifested by the much greater tendency to use counseling among those who reported clinically significant levels of psychological distress. Among participants who reported clinically significant levels of psychological distress, 9% reported having received counseling once and 14% reported having been counseled more than once. Among those who reported moderate distress, 5% were counseled once and 5% were counseled more than once. In the low distress group, 3% were counseled once and 1% were counseled more than once. The relationship between level of psychological distress and the use of counseling is quite modest ($r = .16$).

Of particular note is the finding that of students who reported clinically significant levels of psychological distress (that is, they were in need of mental health services), more than three-fourths reported not receiving counseling for emotional problems during the past 6 months.

The demographic variables sex, ethnicity, and SES were not related to the use of counseling (see Table 2). Men and women were equally likely to have availed themselves of counseling, none of the 4 ethnic groups (Asian, African American/black, Latino/Hispanic, and Caucasian/white) used counseling at a statistically significantly higher level than did any other, and the 4 SES groups did not differ from one another in use of counseling.

Sex was related to level of psychological distress; women had a higher level of distress and therefore needed counseling (see Table 3). Ethnicity and SES were not statistically significantly related to level of psychological distress (see Table 3).

The finding of no relationship between use of counseling and the 3 variables (sex, SES, and ethnicity) was not changed when we controlled for level of psychological distress using ANCOVA.

### Table 1. Distribution of Level of Psychological Distress and Level of Use of Counseling ($N = 1,773$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$n$</th>
<th>%</th>
<th>Cumulative</th>
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</thead>
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<tr>
<td>Level of distress</td>
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<tr>
<td>Low distress</td>
<td>294</td>
<td>17</td>
<td>17</td>
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<tr>
<td>Moderate distress</td>
<td>1,319</td>
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<td>Clinically significant distress</td>
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<td>100</td>
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<tr>
<td>Level of counseling</td>
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<td>90</td>
</tr>
<tr>
<td>Once</td>
<td>90</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>More than once</td>
<td>90</td>
<td>5</td>
<td>100</td>
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### Table 2. Mean Use of Counseling by Sex, Ethnicity, Socioeconomic Status, and Psychological Distress ($N = 1,773$)

<table>
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<th>$M$</th>
<th>$SD$</th>
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<tr>
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<td>.51</td>
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<tr>
<td>White</td>
<td>184</td>
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<td>Socioeconomic status</td>
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</tr>
<tr>
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<td>1.16</td>
<td>.49</td>
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<tr>
<td>Lower middle</td>
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<td>1.17</td>
<td>.51</td>
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<tr>
<td>Upper middle</td>
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<td>.48</td>
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<td>Distress</td>
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<tr>
<td>Clinically significant</td>
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<td>160</td>
<td>1.36</td>
<td>.71</td>
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</table>

*a1 = never, 2 = once, 3 = more than once.
*b Linear relationship: $F(1, 1,770) = 45.62, p < .0001$.
*c Curvilinear relationship: $F(1, 1,770) = 4.22, p < .05$. 
COMMENT

Limitations

The study has several limitations. First, we used self-reports to measure the variables and a single item to measure use of counseling. Second, we did not explicitly include the title “professional counselor” in the list of professionals from whom counseling might have been obtained; we thought the term was redundant with counseling, but this omission may have caused some students to state that they had not sought counseling when, in fact, they had. Third, the sample was limited to commuter students from 1 university located in a large urban area and may not be representative of all college students. Fourth, the research design was correlational, not experimental. Appropriate caution should be taken in interpreting the results. However, the findings’ external validity is strengthened by the large and diverse sample, our participants’ similarity of levels of mental health symptoms to those of older adolescents in other studies, and the similarity of our participants’ level of obtaining counseling to that estimated for a national sample of college students. The internal validity was strengthened by the use of sample selection and statistical control of potentially contaminating variables.

Interpretation

Our findings only partially confirm the assumptions about use and disparity in use of mental health services that are found in federal health policy analyses. On the one hand, general assumptions about utilization and underutilization were borne out. First, use of counseling for emotional problems during the past 6 months was positively correlated with current need for services, as indicated by level of psychological distress; however, this relationship was weak \( r = .16 \), with level of distress accounting for only 2.5% of the variance in use of counseling. Second, participants considerably underutilized mental health services: among students who were currently experiencing clinically significant levels of psychological distress that could interfere with productive living, more than three-fourths had not had counseling for emotional problems in the past 6 months.

On the other hand, assumptions that there are disparities in the use of mental health services associated with sex, ethnicity, and SES were generally not supported by the data on these college students. We found no statistically significant differences in the level of use of counseling for emotional problems between men and women, among the 4 ethnic groups, nor among the 4 levels of SES. We obtained the same results when we controlled for the level of need for services.

These findings are not likely to be statistical artifacts because the measures of the variables were reliable and had face-content validity, the distributions on the variables were not truncated, the sample was large and had the statistical power to detect small bivariate relationships in the data, and we controlled for potentially contaminating variables by sampling or statistical analysis. Thus, we believe the findings reflect the actual relationships that exist among these variables in the group studied. Nevertheless, the interpretations must be made tentatively because the sample is not strictly representative. The stress levels and the availability of mental health services may be different for students in this sample than for other college students.

Conclusions

We found a notable underutilization of mental health services among this population, with more than three-fourths of first-year college students who currently have

<table>
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<th>n</th>
<th>M</th>
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<th>p</th>
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<td>2.00</td>
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</table>

\(^a 1 = \text{low}, 2 = \text{moderate}, 3 = \text{clinically significant.}\)
clinically significant levels of psychological distress not using counseling for emotional problems in the past 6 months. This underutilization does not appear to be a function of disparities in use associated with sex, ethnicity, or SES, nor of differential need for services associated with these demographic variables. Use of mental health services may well be a function of an individual’s need for the services and of values and attitudes that enhance or inhibit the use of mental health services. These needs, values, and attitudes, however, appear not to be associated with sex, ethnicity, and SES. Therefore, college health services’ recruitment of students for clinical services should focus on the individual student’s need for mental health services rather than target demographic groups.

Before we can develop more effective strategies for increasing use of mental health services among people who need them, however, we need a better understanding of the individual’s perception of need and his or her means of coping with that need. Individuals with high levels of psychological distress may not (1) recognize that their psychological state is unusual, (2) understand that there are relatively straightforward, effective ways of coping with the distress, or (3) know how to obtain help in coping with the distress.

The clinical implication of this study is that college mental health providers should not passively wait for students who are in need of help to seek it; the vast majority of these individuals likely will not do so. Administrators should implement active outreach efforts to identify and provide counseling to those in need. However, in a college setting, overcoming the potential impediments to using mental health services should not pose insurmountable problems or be prohibitively expensive. The first step could involve implementing a simple screening device for identifying individuals in need of services and a targeted recruitment effort based on the need for services and on the nature, effectiveness, and availability of services.

Recommendations for future research include developing and evaluating new screening devices for identifying individuals in need of mental health services; identifying values and attitudes that enhance or inhibit an individual’s use of mental health services; and developing and evaluating informational programs that help the individual overcome the inhibiting effect of these values and attitudes.

NOTE

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