COLLEGE STUDENT STRESS AND MENTAL HEALTH: EXAMINATION OF STIGMATIC VIEWS ON MENTAL HEALTH COUNSELING

Donna Holland, Indiana University Purdue University
Heidi Wheeler

ABSTRACT: *This study investigated the effect of college student stigmatic views on mental health counseling use while controlling for stress and mental health. Results revealed three key findings. As students' stigmatic views increased, they were less willing to use counseling services. Greater depression levels predicted greater willingness to use counseling service. More adaptive coping methods increased willingness to use counseling services. These findings guided policy recommendations suggesting social marketing campaigns, augmenting specific health related academic courses.*

Keywords*:* Social stigma; self-esteem, counseling, depression, coping

INTRODUCTION

The prevalence of mental health problems among the college student population is on the rise, yet prior research suggests that a majority of students who experience psychological stress do not seek mental health counseling (Dixon and Kurpius 2008; Gallagher 2008; Kitzrow 2003; Rosenthal and Wilson 2008; Yorgason et al. 2008). However, social support and interpersonal coping skills may allow some students to adapt to college better than others. Psychological stress is one of the mental health issues that students experience after entering college, although an increasing proportion report experiencing psychological distress prior to college entry. Given that stress among college students may result in increased mental health problems, combined with the persistently low rates of participation among college counseling centers across the United States, the need for further research is warranted. Mental health counseling

includes on-campus services, public mental health services, and private mental health services in this study. The term "mental health literacy" collectively refers to research in this area. Programs such as Mental Health First Aid emphasize national level models that provide training and certification to improve knowledge about mental health. Some of the trainings are actually college level courses on mental health literacy. The purpose of this study is to examine the influence of college students' attitudes on mental health counseling service-use through the lens of stigmatic theory.

Understanding students' stigmatic levels was essential in predicting their use of counseling services, since greater levels of stigma were associated with lower counseling service use (Britt et al. 2008; Cook 2007; Yorgason 2008). Stressors such as academic stress and perceived stress could affect students' use of counseling services, thus this research controlled for academic stress and perceived stress. Various other factors can play a role in students' use or non-use of counseling services. Adaptive coping, use of emotional support, use of instrumental support, positive reframing, planning, acceptance, humor, and religion are adaptive coping methods, while self-distraction, denial, substance use, behavioral disengagement, venting, and self-blame are maladaptive coping methods (Schottenbauer et al. 2006). Adaptive coping, self-esteem, academic self-efficacy, and social support may increase one's use while other factors may play a role in decreasing usage (Bagley and King 2005; Broidy and Agnew 1997; Carver 1997; Kelly et al. 2007; Pritchard and Wilson 2006; Zajacova et al. 2005). Hence, this research examined depression and maladaptive coping methods that could result in a lower likelihood of using counseling services (Britt et al. 2008; Carver 1997; Kelly et al. 2007; Pritchard and Wilson 2006). These factors were associated with students' use of mental health counseling services and this research controlled for their effects.

Stigma theory guided our analysis. The effect of stigma on individuals with mental illnesses has been a long standing problem in society (Hinshaw 2005; Link and Phelan 2001; Tanaka 2003; Tsang et al. 2007). Stigma is a social factor affecting the use of professional mental health counseling (Tsang et al. 2007). The underutilization of counseling services may be affected by the perceived stigma attached to the use of counseling (Britt et al. 2008; Cook 2007; Yorgason 2008).

Link and Phelan (2001) noted that stigma was associated with a label that can operate concurrently with a stereotype. Mental

illness is thought to carry a blemish or imperfection that society somehow negatively associates with the individual (Link and Phelan 2001). Historically, individuals with mental illnesses were seen as the equivalent of demon possessed, thereby further diminished in the eyes of society (Hinshaw 2005; Tsang et al. 2007).

The media has played a large role in reporting negative aspects of mental illness, such as criminality, drug and alcohol use, and addiction (Sharp et al. 2006). The role of the media is especially concerning given that many people counted on the media to inform them on the truths about mental illness (Wolff et al. 1996). Due to societal stigmatic views, individuals who needed or wanted to utilize mental health services found it difficult to avoid the label of "mentally ill". Consequently, students may then perceive being the object of negative views and ostracizing effect from society and feel their achievements were diminished socially or academically.

If students were seen as deviating from the normal population by seeking counseling, they could experience undue stigma. It was predicted that students would not use counseling services to avoid the stigmatizing effect. In this research, we expected stigma to inhibit willingness to counseling use. Other factors that may affect their perceived use of services are controlled for in this research and are reviewed to provide a more comprehensive understanding of students' willingness to use counseling services.

Stress, Mental Health, Academic Self-Efficacy

Students experiencing more stress were less likely to use counseling services (Britt et al. 2008; Dixon and Kurpius 2008; Gallagher 2008; Rosenthal and Wilson 2008; Yorgason et al. 2008). Based on prior research findings, it was necessary that the current study include stress levels of students since the levels were reportedly increasing but the use of services was decreasing (Britt et al. 2008; Dixon and Kurpius 2008; Gallagher 2008; Kitzrow 2003; Rosenthal and Wilson 2008; Yorgason et al. 2008). Students experiencing academic stress use counseling services less (Britt et al. 2008). Large numbers of college students have dealt with stress involving their academics (Dixon and Kurpius 2008) and were less likely to seek mental health counseling services, thus increasing their stressful symptoms (Britt et al. 2008). Therefore, this study predicted that as students' academic stress increased, they were less likely to use mental health counseling services.

Perceived stress was vital to this study since students' perceptions of stress could affect their use of counseling services. Furthermore, higher levels of stress were associated with avoidance coping strategies, increasing students' depression and decreasing their use of counseling services (Dyson and Renk 2006). Consequently, it was expected that as students' perceived stress increased they were less likely to use mental health counseling. Other control factors affecting students' use of mental health counseling services encompassed many areas of their mental health.

Student mental health areas controlled in this study were: depression, adaptive and maladaptive coping, self-esteem, academic self-efficacy and social support. Greater depression levels were expected to predict lower usage of mental health counseling. Along with depression, students' coping methods may also predict the use of mental health counseling services.

Two areas of coping methods were examined: adaptive and maladaptive. An individual's perception of controlling their mental illness was linked to employing more adaptive coping methods, such as emotional support, or using instrumental support (Carver 1997; Kelly et al. 2007; Pritchard and Wilson 2006). Maladaptive coping methods, such as substance abuse or behavioral disengagement were associated with greater levels of mental illness (Carver 1997; Kelly et al. 2007). It was expected that adaptive coping methods would increase the odds of using mental health counseling services and maladaptive coping methods would lower the odds of using counseling services.

Low self-esteem lowered the likelihood of mental health counseling services use (Bagley and King 2005). It was predicted that students with higher self-esteem had favorable attitudes about use mental health counseling services. Since stress can reduce a student's academic confidence (Zajacova et al. 2005), it was likely that lower academic self-efficacy levels would predict lower uses of mental health counseling services. Individuals with greater levels of social support were more likely to use mental health counseling (Broidy and Agnew 1997). This study aims to understand how self-esteem and stigmatic views are related to attitudes favoring counseling use on a college campus.

METHODS AND PROCEDURES

Data and Sample

Research participants were college students attending a Midwestern regional university. Participation was voluntary. Participants received no concrete incentive for participation. Some potential participants declined participation, but they did not know the details of the survey when they declined. Their reasons for non-participations included lack of time, schedule conflict, and likely other reasons that were unstated. The data were collected in public spaces on the University campus. The study was not administered in a classroom. Data were collected using paper/pencil. Data collection was done individually, not in groups. A table for data collection was placed in several places throughout campus. A researcher requested passers-by to complete the survey. Any questions of potential respondents were answered by the researcher. Participants were given IRB approved consent forms for completion prior to taking the survey. The full project was previously approved by the Purdue University IRB. The research procedures included informing respondents about the availability of mental health counseling services on and off campus to guide individuals to get help. Data were collected from April 9, 2009 to April 16, 2009 using a self-administered survey questionnaire.

The total sample consisted of 342 respondents composed of (52%) females and 48% males. The average respondent was 25 years old. There were 252 Caucasians (74%), 39 African Americans (11%), 15 Hispanic/Latino origins (4%), 15 Asians (4%), 2 Native Americans (.6%), 1 Pacific Islander (.3%), and 18 (5.6%) other races, such as German American, Macedonian, African or other multiple race. There was a significant difference among Caucasians in this study and those in the campus population (t =-4.661, p = .000), since there were intentional efforts to oversample minority students. Student respondents indicating international student status were 18 (5.3%). Lastly, the sample of students within each year in college were compared to the campus student body revealed no significant difference among freshmen (29%) (t =-.071, p = .944) or sophomores (21%) (t =-1.471, p = .142). Juniors (18%) (t =2.582, p = .010), seniors (27%) (t =2.469, p = .014), and graduate students

(4%) (t =8.653, p = .000) revealed significant differences in the campus population year in college.

MEASUREMENT

Dependent variable

The present research investigated attitudes toward use of counseling services. The survey asked respondents if they would use counseling services. Most research only investigated whether students would or would not use counseling services, instead of obtaining current reports of their use or non-use of services (Rosenthal and Wilson 2008). Because the dependent variable was dichotomous, multiple logistic regression was used to answer the research question. Counseling use was dummy coded to represent 1 = yes and 0 = no. There were no missing data on the dependent variable.

Independent Variables

Missing values were imputed with the mean/mode for interval/dummy variables as appropriate.

Stigma. The theoretical hypothesis was that perceived stigma would predict students' use of counseling services. The perceived stigma scale was initially modeled by Britt (2000) and Britt et al. (2008). The perceived stigma scale asked students questions about using mental health services such as "It would be too embarrassing" and "I would be seen as weak" (Britt et al. 2008:322). Though the original scale included eleven items (Britt 2000) we employed the six item scale used by Britt et al. (2008). The six-item stigma scale was measured with 1 = Strongly Disagree to 5 = Strongly Agree. The summated stigma scale range was 6 to 30, where the higher scores represented greater stigmatic views towards mental health counseling. Cronbach's alpha coefficient was .85, an acceptable level of internal reliability (Sweet and Grace-Martin 2008) and similar to that of the 10-item scale in Britt (2000).

Perceived stress. We used the Perceived Stress Scale (PSS), a 14-item scale derived by Cohen, Kamarck, and Mermelstein (1983) that measured perceived stress within the past 30 days. The PSS asked respondents to measure their life stress levels with questions such as "In the past month, how often have your felt nervous or stressed?" and "How often you found you could not cope?" (Co-

hen et al. 1983:394-395). Other research used this scale with a 4 or 10-item scale (Chiauzzi et al. 2008). The present research used a summated 10-item scale, with a 5-point Likert scale of 1=never and 5=very often. Four questions in the PSS required reverse coding so that all values would predict higher levels of perceived stress. Perceived stress had a range from 10 to 50. Several studies using the PSS reported Cronbach's alpha scores ranging from .82 to .86 (Arévalo, Prado, and Amaro 2007; Britt et al. 2008; Cohen et al. 1983; Feldt 2008), similar to the Cronbach's alpha in this study ($\alpha = .87$).

Academic stress and academic self-efficacy. The College Self-Efficacy Inventory (CSEI) measured academic stress to determine the level of stress students' experienced. The CSEI was originally derived by Solberg et al. (1993). This scale originally measured three areas about college student self-efficacy: class, roommate concerns, and social arenas. Zajacova et al. (2005) however used the CSEI to measure academic self-efficacy on two levels: academic stress and academic confidence, with the confidence portion representing self-efficacy. But, since their study was conducted on campus with high numbers of non-traditional students, similar to this study, the "roommate" questions were eliminated and other questions relating to family, academics in and outside of the classroom, and financial matters were added, making this scale appropriate for the current sample.

These two scales were measured separately in the present research. There were 27 questions in the scale asking about respondent stress levels. Samples of the questions were: "Preparing for exams, getting the grades I want, talking to my professors or making friends at college" (Zajacova et al. 2005:700). Additionally, each respondent was asked to rate how stressful each item was using a 10-item Likert scale ranging from 1=not stressful through 10=very stressful. The academic stress scale range was 27 to 270, but dividing it by 27 (the number of items in the scale) brought the scale range back down to 1-10. Higher scores represented more stress or more confidence, respectively. Several studies found the Cronbach's alpha similar to Solberg et al. (1993) which measured .83 - .88 on the sub-scales, and .92-.93 on the full scale (Gore, et al. 2006; Solberg and Villarreal 1997). Additionally, Zajacova et al. (2005) Cronbach's alpha's ranged from .72 to .90. In this study, the CSEI academic stress Cronbach's alpha was comparable to other studies ($\alpha = .92$). The CSEI was employed for academic self-efficacy. Lower levels of academic confidence were associated with greater stress

(Gore, Leuwerke and Turley 2006; Zajacova et al. 2005), thus affecting students' use of counseling services. The academic self-efficacy scale range was 27 to 270, but dividing it by 27 brought the scale range back down to 1-10, where the higher scores represented more academic self-efficacy. Wang and Sound (2008) reported a Cronbach's alpha of .88, and employed academic self-efficacy (CSEI) without the roommate questions in the measurement. The current study produced a similar Cronbach's alpha ($\alpha = .92$).

Depression. The survey included several questions about depression. We employed a 10-item model, which was originally derived from other depression scales, such as the Center for Epidemiologic Studies Depression Scale (CES-D), which was a 20 item scale created by Radloff in 1977 (Radloff 1977; Shean and Baldwin 2008). The CES-D measured how severe a student's depression was and has shown to have validity in determining clinical depression (Shean and Baldwin 2008). The depression model by Pearlin et al. (1981) was chosen as an indicator for students' depression in the present research because it was a shorter version of the CES-D. Each depression scale item was rated on a 4-point Likert scale: 1 = Rarely or none to 4 = Most or all of the time (Cohen and Hoberman 1983:106). The depression scale asked about depressive symptoms within the past week such as how often they: "Lack enthusiasm for doing anything" and "Have a poor appetite" (Pearlin et al. 1981:353). Higher scores indicated more depressive symptoms. The summated depression scale range was 10 to 40, where the higher scores represented greater depressive symptoms. Cronbach's alpha in prior studies ranged from .88 to .89 (Britt et al. 2008; Ying et al. 2000), similar to this study ($\alpha = .83$).

Coping. The survey included two series of coping method questions: adaptive and maladaptive. The Brief Cope Inventory (BCI) was chosen to examine students' adaptive and maladaptive coping methods (Dyson and Renk 2006). Carver (1997) derived the BCI as an abbreviated version of the original COPE scale (Carver, Scheier, and Weintraub 1989). The full COPE scale was a 60-item instrument with much repetition (Dyson and Renk 2006), while the BCI measured many of the same coping strategies, but with less redundancy (Carver 1997). The BCI was a 28-item scale that investigated how college students coped with their stress. A sample of the adaptive coping questions is: "I've been concentrating my efforts on doing something about the situation I'm in". A sample of the maladaptive coping questions is: "I've been saying to myself, this isn't

real, I've been blaming myself for things that happened…" (Carver 1997:96). The BCI measured coping with 1 = *I usually don't do this at all* to 4 = *I usually do this a lot*. In this study the scale was examined two ways: adaptive and maladaptive coping styles. Adaptive coping, use of emotional support, use of instrumental support, positive reframing, planning, acceptance, humor, and religion were adaptive coping methods, while self-distraction, denial, substance use, behavioral disengagement, venting, and self-blame were maladaptive coping methods (Schottenbauer et al. 2006). The summated adaptive coping scale had a range of 16 to 64, later divided by 16, for a final range of 1 to 4, where higher values represented healthier coping ($\alpha = .79$). The maladaptive reported range was 12 to 48, later divided by 12 for a final range of 1 to 4 where higher values represented unhealthy coping ($\alpha = .74$).

Self-Esteem. The Rosenberg self-esteem scale (RSE) (Rosenberg 1965) was used to measure global self-esteem in students as a predictor for their use of counseling services. The self-esteem scale consisted of a 10-item Likert scale with 4 answer options from 1 = Strongly Disagree, to 4 = Strongly Agree, with the range from 10 to 40. Higher RSE scores indicated more self-esteem. The respondents were asked how strongly they agreed or disagreed with the following questions: "I feel I have a number of good qualities" and "I feel I do not have much to be proud of" etc. (Pearlin et al. 1981:353). Five questions in the RSE required reverse coding so that all values would predict higher levels of self-esteem. The RSE indicators were summated to create the self-esteem variable ($\alpha = .87$).

Social Support. The Interpersonal Support Evaluation List (ISEL), derived by Cohen and Hoberman (1983) was utilized to indicate students' level of social support. The social support scale had several different measures, but only the appraisal scale was employed. The 12-item appraisal sub-scale asked questions such as: "I know someone who I see or talk to often with whom I would feel perfectly comfortable talking about my problems I might have adjusting to college life" and "There isn't anyone at school or in town with whom I would feel perfectly comfortable talking about any problems I might have getting along with my parents" (Cohen and Hoberman 1983; Swift and Wright 2000:28). The appraisal portion of the ISEL series measured social support from 1 = Definitely False to 4 = Definitely True, with a range of 12 to 48 and divided by 12 to score a final range of 1 to 4 (Cohen and Hoberman 1983).

Higher appraisal scores indicated more social support. Five questions in the appraisal scale required reverse coding so that all values would predict higher levels of social support. The social support indicators were summated to create the social support variable. Cronbach's alphas ranging from .77 to .93 (Larose and Boivin 1998; Swift and Wright 2000) mirrored the Cronbach's alpha in this study ($\alpha = .88$).

Control Variables

Although the primary focus of this study was on the effects of stigmatic views on counseling use, other measures were included in our final analysis to control for their established relationships with counseling use. Prior studies have documented that women are more likely than men to use counseling services (Phalen and Basow 2007) and that there are age (Sharp et al. 2006; Stovell 2008) and race/international status differences in counseling use (Chiu 2004; Hinshaw 2005; Sharp et al. 2006; Shea and Yeh 2008; Tsang et al. 2007). Thus we included in our multivariate analysis a dummy variable for gender, race, and international status. The age variable was not normally distributed even after replacing the mean or applying squaring techniques. Therefore, age was dichotomized into two dummy coded groups to represent 1 = 26 years of age and older and 0 = 25 years of age and younger. Previous research also indicated that being in a relationship, higher year in college (Halter 2004), and religious participation were more likely to use counseling services. We also controlled for GPA and work status. Workforce status was then dummy coded to represent 1 = Not Working/Not Employed and 0 = Part-time and Full-time (working/employed).

STATISTICAL ANALYSIS

Univariate analyses were conducted to determine how often certain patterns and behavior were reported, such as how many students reported using adaptive coping methods. Additionally, univariate analyses aided in investigating what variables had missing data or data entry errors. Frequency distributions and case summaries were conducted on all variables to aid in examining missing data and unusual responses. Univariate analyses examined each scale variable to ensure normal distribution. Descriptive statistics were calculated on all variables to ensure correct coding. For scale measurement

items, such as the stigma scale, box plots, stem and leaf, and histograms were analyzed for normality. For categorical measurements such as race, bar charts or pie charts were chosen to examine the categorical distributions. Since the dependent variable was categorical, chi-square and bivariate logistic regression tests were conducted (Sweet and Grace-Martin 2008). The data were analyzed using SPSS 16.0.

Bivariate analyses were conducted to establish what variables were more significant than others in predicting students' use of mental health counseling services. Chi-square tests were conducted on sex, age, and race on the dependent variable to determine significance between the groups. Significant values predicted use of counseling services. Post hoc tests were conducted for the unordered measures of sex, age, race with phi, which determined the strength of each relationship. Strength of .40 was considered a strong correlation and anything above was considered very strong (Sweet and Grace-Martin 2008).

Bivariate logistic regression analyses were conducted between independent control scale variables such as perceived stress, and the dependent variable, willing to use mental health counseling services, because the dependent variable was categorical. Logistic regression was appropriate because the dependent variable was dichotomous (DeMaris 1995; Sweet and Grace-Martin 2008). Logistic regression analysis was conducted in this study to identify the relationship between stigma and students' use of mental health counseling services, controlling for other factors.

RESULTS

This study examined four key areas: students' stigmatic views of mental health counseling, students' stress, students' mental health, and if students would use mental health counseling services for stress. Initially, several other individual characteristics were analyzed to describe the sample: Students' GPA, year in college, relationships, children, workforce status and religious participation.

The aggregate GPA of all students was between 3.0 and 3.50. The average student age was 25 years old. There were 324 (95%) undergraduate students with an average age of 24. Of the undergraduates, there were 98 (29%) Freshmen, 72 (21%) Sophomores, 63 (18%) Juniors, and 91 (27%) Seniors. Of the graduates or continuing education students, there were 18 (5%) graduate and

continuing education students who partook in the study, with an average age of 36, similar to enrollment demographics of 7% and 34.3 years of age, respectively. Specifically, there were 14 (4%) graduate students and 4 (1%) continuing education students.

Married students comprised 39 (11%) of the sample, while those in relationships whether living together and not married or dating, were 88 (26%), totaling 127 (37%) students in relationships. Additionally, 215 (63%) single, separated, divorced, widowed/widower students were not in relationships. Fifty-two (15%) of the students surveyed reported having children. Forty-eight (14%) students reported working full-time, 203 (59%) worked part-time, and 91 (27%) were not employed, with 251 (73%) working and 91 (27%) non-working students. There were 110 (32%) religious students.

Students' Depression

Analyzing students' depression levels was necessary to determine how they compared to national patterns. To determine depression levels of students that were similar to the national statistics, descriptive statistics were run to select out differing levels of depression. There were 15 (4.3%) students exhibiting higher levels of depression ($\bar{x}$ = 33.07), while there were 148 students reporting moderate levels of depression ($\bar{x}$ = 24.07). Students with moderate levels of depression represented over two out of five students (43%) with depressive symptoms. This 43 percent was a much higher rate of depression compared to the national rate of 18.9 percent (American College Health Association 2006; American College Health Association 2008; Fisher 2004), but these figures were more similar to the AMA prior data (AMA Calls for 2006), signifying that students depression levels were similar to national levels.

On average, students 26 years of age and older were more likely to use mental health counseling compared to students 25 years of age and younger. Additionally, on average, females were more likely to use mental health counseling than males. Conversely, Caucasians had lower interest, on average, in using mental health counseling compared to non-Caucasians. Further bivariate analyses were conducted to understand how the hypotheses predicted students' use of mental health counseling services.

Bivariate analyses were performed revealing further patterns within the data (see Table 2). Each bivariate analysis reported

the grand mean. Additionally, the mean for sex, age, and race and specific indicators of mental health counseling use were reported to aid in further understanding how students' use of mental health counseling services was impacted by certain predictors. As the theoretical component in this study, students' stigmatic levels were examined to understand how they predicted their use of counseling services.

Stigmatic Views

On average, students' stigmatic views were moderately low ($\bar{x}$ =13.45). Females' ($\bar{x}$ =12.88) stigmatic views of mental health counseling services were lower than males ($\bar{x}$ =14.05). Students 25 years of age and younger ($\bar{x}$ =13.67) had higher stigmatic views towards mental health counseling than students 26 years of age and older ($\bar{x}$ =12.78). Caucasians ($\bar{x}$ =13.55) stigmatic views of mental health counseling was higher than non-Caucasians ($\bar{x}$ =13.16). Results support our prediction that students with stigmatic views would be less likely to use mental health counseling services (OR .904, $p < .001$). Overall, students' stigmatic views did affect their willingness to use of mental health counseling services.

Stressors. Our prediction that students with lower levels of perceived stress would be more likely to use mental health counseling services was not supported (OR 1.026, p =.152); however, it was clear that students were under stress ($\bar{x}$ =30.18). Academic stress was examined to determine the levels of students' academic stress and how academic stress predicted their use of mental health counseling services. Our prediction that students with less academic stress would be more likely to use mental health counseling services was not supported (OR 1.113, p = .189).

Students' depression levels were studied to determine what levels predicted the use of mental health counseling services. The results revealed that on average students were dealing with moderately low levels of depression ($\bar{x}$ =19.19). The more depressed students became, the more likely they would be to use counseling services (OR 1.062, p =.010). Students' use of adaptive coping methods were moderately high ($\bar{x}$ =2.80) but did not predict the use of mental health counseling services (OR 1.632, p = .051). Maladaptive coping methods did not predict the use of mental health counseling services (OR .986, p = .957). Students with greater self-

esteem were no more likely to use counseling services than students with lower self-esteem (OR .990, p = .642).

Students with more academic self-efficacy were no more likely to use mental health counseling services (OR .984, p = .862). Social support did not predict students' use of mental health counseling services (OR 1.013, p = .395).

Counseling Use

Several indicators were investigated to determine what predicted the use of mental health counseling services. The grand mode for use of mental health counseling services revealed that more students would use the services than not (Table 1). The results revealed a significant difference among genders in the use of mental health counseling services, ($\chi 2$ (1) = 8.221, p =.004), but the strength of the relationship was very low (phi = .155, p = .004). Among sexes, 130 (57%) females and 97 (43%) males would use counseling services for stress in their life compared to 47 (41%) females and 68 (59%) males who would not use counseling services for stress in their lives, as was expected. These results indicated that females were more likely to use counseling services than males, consistent with previous findings (Möeller-Leimkühler 2002; Phelan and Basow 2007). The results revealed a significant difference among ages in the use of mental health counseling services ($\chi 2$ (1) = 7.855, p = .005), but the strength of the relationship was very low (phi =.152, p = .005). Among the age groups, 160 (70%) students aged 18 to 25 and 67 (30%) students aged 26 and older would use counseling services for stress in their life, compared to 97 (84%) students aged 18 to 25, and 18 (16%) students aged 26 and older who would not use counseling services. But, when analyzing students' year in college, the results revealed that as students advanced in their academic career they were more likely to use mental health counseling, which was comparable with prior research findings (Halter 2004). There were no significant differences between Caucasians and non-Caucasians in willingness to use counseling services ($\chi 2$ (1) = 3.564, p = .059). Although these results were opposite of what was expected, categorizing students' races by more specific race categories may produce differing levels of use or non-use of mental health counseling services by race. According to Shea and Yeh (2008), in spite of ethnicity and cultural differences, females were still more likely to use mental health counseling services, pointing to further

examination for specific genders and cultural views of counseling services. These bivariate analyses were vital to determine differences among groups and the prediction for students' use of mental health counseling services. But, as further analyses were conducted, multivariate analyses revealed how mental health counseling service usage was affected when considering all indicators simultaneously.

Table 1. Respondents' Characteristics for Use of Mental Health Counseling Services (MCH)

	Use MHC (n= 227)		Not use MHC (n= 115)	
Variable	Mean	SD	Mean	SD
Perceived Stress	30.54	6.70	29.46	6.21
Academic Stress	6.20	1.41	5.99	1.35
Depression	19.72	5.67	18.15	4.27
Adaptive Coping	2.84	.48	2.73	.43
Maladaptive Coping	1.96	.44	1.96	.44
Self-Esteem	31.27	5.11	31.54	5.08
Academic Self-Efficacy	6.61	1.29	6.63	1.18
Social Support	37.72	7.71	36.98	7.27
Stigma	12.73	4.72	14.87	4.19

Table 2. Unadjusted Odds Ratio of Use of Mental Health Counseling Services (MCH)

Variable	Odds Ratio	P-Value
Stigma	0.904	0.001
Academic Stress	1.113	0.189
Depression	1.062	0.010
Adaptive Coping	1.632	0.051
Maladaptive Coping	0.968	0.957
Self-Esteem	0.990	0.642
Academic Self-Efficacy	0.984	0.862
Social Support	1.013	0.395
Perceived Stress	1.026	0/152

MULTIVARIATE MODEL

The first multivariate model included all control variables. The second model incorporated stigma with all the control variables (See Table 3). International students were not included in either model because of the low cell count. The results from model 1 reveal that the more depressed students were, the more likely they were to use counseling services (OR 1.123, p = .002), contrary to the prediction. Additionally, the more adaptive coping methods students utilized, the more likely they were to use mental health counseling services (OR 2.310, p = .012), as was expected. In model 2, stigma, the theoretical variable, significantly predicted counseling use. The results

revealed an expected finding that the more stigma students possessed towards mental health counseling, the less likely they were to use the services (OR .912, p = .002). Additionally, depression and

Table 3. Logistic Regression of Mental Health Counseling Use on Controls and Stigmatic Views

Predictor	Model 1	Model 2
Female	1.4	1.4
26 Years old or older	1.79	1.73
Caucasian	.69	.65
Intimate Relationship	1.43	1.43
Children	1.27	1.14
Year in College	1.08	1.11
GPA	1.04	1.07
Working	1.05	1.4
Religious Participation	.67	.73
Perceived Stress	.98	.98
Academic Stress	1.16	1.16
Depression	1.12**	1.11**
Adaptive Coping	2.31*	2.09*
Maladaptive Coping	.51	.54
Self-Esteem	.99	.98
Academic Self-Efficacy	1.01	.98
Social Support	.99	.99
Stigma		0.91***
-2 Log Likelihood	396.49***	386.98****

*p<.05 **p<.01 ***p<.001 ****p<.000.
Note: Odds ratios are shown.

adaptive coping were significant in the final model. The more depressed students were, the more likely they were to use mental health counseling (OR 1.110, p = .007). Lastly, net of other variables in the model, results still revealed that as students employed more adaptive coping methods, the more likely they were to use mental health counseling (OR 2.087, p = .032). Furthermore, regardless of any control variables, the theoretical component stigma was significant, with greater levels predicting lower likelihoods of use.

DISCUSSION

This study revealed three main findings. First, students possessed stigmatic views concerning mental health counseling. Second, students' stigmatic views affected their perceived willingness to use counseling services. And third, students' adaptive coping methods predicted their perceived willingness to use services. Stigma theory partially explains students' perceived use of mental health counseling services.

As students' stigmatic views increased, they were less likely to use mental health counseling. Decreasing stigma among students is essential. Policies should suggest that mental health counseling services are empowering, and not denigrating or discriminatory. Furthermore, when referring to mental health issues, it is important that faculty, staff, and students use the term "mental health" or "student wellness" instead of "mental illness" (SAMHSA 2007).

Sharp et al. (2006) demonstrated that classroom education decreased the stigmatic views associated with the perceptions of the mentally ill. This education could create more openness among students by reducing the discriminatory and deviant labeling associated with the use of mental health counseling or the diagnosis of mentally ill. Since stigmatic views are usually formed before an individual is a young adult (Boysen and Vogel 2008), providing this education at the onset of a student's academic career could reduce their stigmatic views and the stereotypical labeling that seems to operate concurrently with mental health problems (Link and Phelan 2001) and the use of counseling services among student groups.

Educational structures must include more positive and repetitive practices to provide measurable increases in the current mental health counseling service awareness and usage (Sharp et al. 2006; Gonzalez et al. 2002; Kitzrow 2003). This repetition further

emphasizes that counseling is not an exclusionary practice as society has implied, causing fear from discrimination (Cook 2007); but, counseling is just discussing feelings with a trained professional about what some people experience sometime in their lives (Möeller-Leimkühler 2002). Still, other methods may provide education about mental health issues to reduce stigma (Sharp et al, 2006). Although students' stigmatic views significantly predicted their willingness to use mental health counseling services, depression was another predictor of students' willingness to use counseling services.

One of the key focus areas in this study was to examine how students' mental health influenced their perceived mental health counseling use. The prediction that students who utilized more adaptive coping methods were more likely to be willing to use mental health counseling was supported. Some of the adaptive coping methods involved emotion-focused and instrumental support, implying students had a more openness to talk and obtain advice from others. On the other hand, some students may not know effective ways to cope with their stress or how to gain access to services for assistance (Rosenthal and Wilson 2008).

Faculty, staff, and students need education about coping methods that are more appropriate in problem solving (Nonis et al. 1998). Faculty need to be aware that first year students may fall prey to more maladaptive coping methods when dealing with stress, such as increased alcohol or drug use, because of the lack of education in positive ways to spend their time. Educating students about how to spend their time studying or preparing for class and required assignments could reduce stress and thereby reduce depression related to lower grades.

This study suggested a need to increase students' use of mental health counseling services. Many students that are stressed or experiencing mental health symptoms such as depression, may not know the signs (Rosenthal and Wilson 2008; SAMHSA Moves Forward 2008; Stovell 2008). For a student to understand that they need counseling, first they must know what depression or other mental health symptoms look and feel like. As students become more aware of the signs of stress, depression or other mental health problems, they are more likely to use mental health counseling services.

Collaborative advocacy efforts could involve nursing, psychology, and human services department collaboration to create

mental health awareness curriculum and implantation of education support on campus. Students in programs such as these will most likely work with individuals who have stress and mental health problems. Benefits of these provisions include emphasis on student wellness, increased awareness about mental health stigma, and a less judgmental and discriminatory atmosphere.

Programs to reduce the stigmatizing effects of mental illness and the discriminating feelings for students should involve additional mental health education addressing mental illness as a normal illness, or as just another reason to seek medical advice (Gonzalez et al. 2002). Employing these types of methods could both address the status loss associated with mental illness, along with the suppression of feelings. Additionally, these methods could lift the negative label involved with prejudicial and discriminatory practices often associated with the use of services (Gonzalez et al. 2002; Link and Phelan 2001).

While quantitative analysis is necessary and informative, focus groups with certain student populations, such as males, international students, or females' depression would have provided even more valuable data to craft further programming for students experiencing stress and depression. Conducting needs assessments in the form of qualitative focus groups about students' needs could provide necessary information to structure awareness and education programs that increase willingness to use mental health counseling services and use in general.

Limitations of the Study

The foremost limitation is a nonrandom sample. The extent that the findings can or cannot be generalized to the greater population of all college students is not clear. The most conservative approach to answer the generalizability question is that one cannot assume that this study's results are indeed generalizable to the population of all college students. This study does nonetheless provide insights into some students' attitudes toward seeking counseling on this particular college campus. There is no known unique circumstance on this campus that would suggest that the findings are unique to this student body, and therefore, lessons learned here may be transferable to other campuses and suggest that other campuses should explore students' attitudes toward seeking counseling. A second major limitation is that the study examined students' reported willingness to use

mental health counseling services, not actually using counseling services. People's attitudes sometimes do not align with their behaviors. Actual counseling participation cannot be derived from this study. However, one of the key aims of the study was to examine the role of social stigma and how stigma influences willingness to seek mental health counseling.

Recommendations for Practice, Policy, and Research

The results highlight the role that stigma can play in the complex decision to seek counseling and suggests that propaganda and campaigns for seeking counseling necessarily address stigmatic views. This is one way that this particular study may help build knowledge for social change. Understanding that social stigma does play a role in attitudes is a strength of the study and implores consideration in dialogues on campus about counseling services. Failure to include and address the issue of social stigma may have real implications for people needing counseling services but who are held back by fears of being negatively stigmatized. In practice, this particular campus needs to campaign against the social stigma of seeking counseling and should create safe places on campus to talk about such perceptions in order to allay these perceptions. The study results highlight the need to broadcast the nature of privacy and confidentiality associated with counseling. By doing so, even with the campaign to lessen the social stigma associated with seeking counseling services, students may be more willing to seek counseling if they understand the privacy and confidentiality safeguards that are practiced to protect them from social stigma. The policies regarding privacy and confidentiality should be widely visible and available to students on campus. These policies are the reassurances that undermine fear of social stigma associated with perceived willingness to seek counseling. The policies must be written in a manner that is concise and easy-to-read in a short time frame. Abbreviated version of the policies with definitions of privacy and confidentiality should be posted around campus with signage that offers counseling services. In practice, students who seek counseling should be periodically reminded of the privacy and confidentiality ensured to them. The signage should also specifically target people with mental health needs endemic to counseling services. Clear verbiage that will, more or less, recruit people who can be helped by counseling services should be a visible element of the campus environment. Lessons learned from

research designed to reduce social stigma (see International Center for Research on Women, for example) are transferable to reducing the stigmatic views associated with perceived willingness to seek counseling. Training designed to address values and judgments around counseling should be an integral part of freshman orientation. Quality reading material aimed at reducing social stigma of mental health counseling from the American Psychological Association should be distributed regularly on campus. Changes at the institutional level would create a supportive and enabling environment wherein seeking mental health counseling is more often seen as taking steps to be healthy, just as we view eating healthy foods as favorable behaviors. By breaking the uniqueness of seeking mental health counseling and aligning it with overall healthy living, stereotypes and stigmatic views should lessen.

Training and propaganda on adaptive coping mechanisms for college students is needed. Counseling services could expand to include such open venues to inform students and to train students about coping mechanisms that other students have found useful. This type of venue might also present opportunities to inform students about counseling options available on campus, or other student support services that help students deal with stressors (such as tutoring services for hard courses).

Future research must use systematic random sampling from the campus student population thereby producing results that are generalizable to similar college student populations. Incentives for participation may be essential to such a study. Future research should examine actual counseling use. The amount of signage on the college campus 1.) about counseling services, 2) the number of signage dedicated to information about a. privacy and confidentiality and b. reducing social stigma should be included in future studies predicting actual counseling use among college students. Inclusion of signage measures into models predicting use of counseling services is a new frontier in the literature. Future studies should include of stigma theory as its explanatory power is evidenced in this study. The involvement of the health care system, overall, should be included in future studies. Future research should be a meta-analysis of recently published research aimed at understanding mental health counseling seeking behaviors. Identification of "what works" to enhance help-seeking behaviors, and reduce stigma may be identified in through research and serve as a beginning step to fully advance the level of understanding we hold on mental health counseling.

Additional research could rely on qualitative analytic techniques that target college students, university staff and faculty and examine views of stigma and seeking mental health counseling. Another line of inquire needed at this university is a comprehensive policy analysis. Such a study could reveal institutional level bias and identify areas where policies need to be revised to be more inclusive and encouraging to people seeking counseling services.

Most importantly, with any of these changes and new research approaches, pre and post-test analyses must be conducted to determine the relevancy of any of the applied changes to the practice, policy and procedures at the local campus.

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AUTHORS' BIOGRAPHIES

Christa Hegenauer recently graduated with her Bachelor of Science Degree from Central Michigan University, studying sociology and cultural competency. She has received a position with City Year Detroit for Americorps starting this August and plans to pursue a Sociology Doctoral Program the following year, in hopes of studying racial inequality and stratification. Contact: clhegenauer23@ gmail.com

Donna Holland is Associate Professor of Sociology and Director of the Center for Social Research at Indiana University Purdue University Fort Wayne. Her recent publication, *Applied Statistics for Social Science Practitioners*, is coauthored with Joni Shreve of Louisiana State University. Contact: (260) 481-6235 (CSR); hollandd@ ipfw.edu

George Lipsitz is Professor of Black Studies and Sociology at the University of California, Santa Barbara. He is the author of ten books including *How Racism Takes Place*, *The Possessive Investment in Whiteness*, *A Rainbow at Midnight* and *A Life in the Struggle.* Lipsitz serves as co-editor of the American Crossroads series at the University of California Press, and as senior editor of the ethnic studies journal *Kalfou*. He chairs the board of directors of the African American Policy Forum and the UCSB Center for Black Studies Research, and is a member of the advisory board of the Fair Housing Clinic at the John Marshall Law School. In 2013 the American Studies Association awarded Lipsitz the Angela Y. Davis Prize for public scholarship. Contact: glipsitz@blackstudies.ucsb.edu

Paula K. Miller is a Postdoctoral Researcher in the Department of Sociology at Michigan State University. Her areas of interest include race, social support, and mental health. Contact: mille995 @msu.edu

William L. Smith is Professor of Sociology in the Department of Sociology and Anthropology at Georgia Southern University, Statesboro, GA. Contact: (912) 478-0255; wmlsmith@georgiasouth ern.edu

Mitchell J. Tiethof wrote "The productive power of delinquency" while completing a Bachelor's degree in Philosophy at Grand Valley State University, and subsequently became instructor at the Earnest C. Brooks Correctional Facility in Muskegon, Michigan teaching courses in social contract theory and the philosophy of democracy. Contact: tiethofm@mail. gvsu.edu

Heidi Wheeler, MA was an applied sociologist in New York. She was interested in understanding and improving the lives of everyone. Heidi recently passed away.