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DOES THE THEORY OF PLANNED BEHAVIOR PREDICT INTENTIONS TO SEEK HELP FOR SUICIDALITY?

A Dissertation submitted to
the Graduate College of
Marshall University

In partial fulfillment of
the requirements for the degree of
Doctor of Psychology

Department of Psychology

by
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Marshall University
December 2010

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ABSTRACT

Does the Theory of Planned Behavior Predict Intentions to Seek Help for Suicidality?

By Jennifer Lynn Mills

The purpose of the current project is to relate disparate lines of research on suicide prevention and help-seeking using Azjen's (1991) Theory of Planned Behavior (TpB). Two studies examined college students' beliefs about help-seeking for emotional problems. In Study 1, 37 undergraduates responded to open-ended questions about a variety of help-seeking behaviors. These responses were categorized. Frequencies and percentages were calculated for each category. In Study 2, 143 undergraduates completed two mental health inventories and a TpB survey constructed by the experimenter. A model containing the three TpB predictor variables—attitudes (M = 15.29, SD = 3.57), perceived social norms (M = 12.38, SD = 3.69), and perceived behavioral control (M = 18.04, SD = 2.84)—predicted a statistically significant portion of the variance in participants' intentions to use campus mental health services, $R^2 = .60$, $F\ (9, 96) = 15.79$, $p <.001$. Attitudes ($\beta = 0.75$, $t = 5.34$, $p <.001$), perceived social norms ($\beta = 0.28$, $t = 2.16$, $p =.034$), and perceived behavioral control ($\beta = 0.38$, $t = 2.58$, $p =.011$) were strongly related to intentions to use campus mental health services even when causal factors previously identified in the literature were controlled for statistically. This research has implications for campus suicide prevention.

Does the Theory of Planned Behavior Predict Intentions to Seek Help for Suicidality?

On April 16, 2007, senior English major Seung-Hui Cho ended his life after killing 27 fellow students and 5 faculty members of Virginia Polytechnic Institute and State University in the largest single gunman massacre in the history of the United States (MSNBC, 2008). Prior to his suicide, Cho had an extensive history of anxiety and depression and had made several unsuccessful attempts at treatment (Luo, 2007). A 2007 review panel report stated that university officials, the university counseling center, and the state of Virginia's mental health system each shouldered some blame for Cho's actions because they collectively failed to engage him in appropriate mental health services (Commonwealth of Virginia, 2007). Cho's actions had a devastating impact on the Virginia Tech community and its supporters; however, they also set into motion a series of legislative changes and funding allocations aimed at preventing suicide on college campuses by improving the ways in which universities address the mental health needs of their students (Leavitt, Spellings, & Gonzales, 2007).

One approach universities have taken has been to focus on increasing student utilization of mental health services that are already offered on campus or in the community (Wooldridge, 2007). For example, some universities have begun training *gatekeepers*, individuals in non-clinical natural helping roles who can identify students at risk for attempting suicide and connect them with appropriate mental health services (Wyman et al., 2008). Many factors have been identified as contributing to students' utilization of mental health services. A potentially useful framework for integrating these factors into a comprehensive model of help-seeking by college students is Azjen's (1991)

Theory of Planned Behavior (TpB), which has been applied to numerous public health issues such as condom use (Albarracin, Johnson, Fishbein, & Muellerleile, 2001).

Suicide as a National Public Health Issue

As of 2005, suicide was ranked as the 11th leading cause of death for all age groups with approximately 32,000 Americans dying by suicide every year (Centers for Disease Control and Prevention [CDC], 2008). The number of deaths by suicide is likely to be underestimated because deliberate actions taken by individuals to ensure death, such as stepping in front of a moving automobile or overdosing on illegal drugs, are often not counted as suicides when the decedent does not leave a suicide note (United States Public Health Service [USPHS], 1999). Because of the scope of the problem of suicide in the United States, the Surgeon General issued a call to action to develop a national suicide prevention plan nearly a decade prior to the Virginia Tech tragedy (USPHS, 1999). The Surgeon General's call to action effectively established suicide as a public health issue on a national scale.

The cost of suicide in the United States is enormous. It is estimated that suicide costs the country $1 billion annually in emergency room visits and $33 billion annually in lost productivity (Corso, Mercy, Simon, Finkelstein, & Miller, 2007). Suicide also takes a huge psychological toll on the loved ones of individuals who complete suicide, termed *suicide survivors* (de Groot, de Keijer, & Neeleman, 2006). The CDC (2008) calculates a conservative estimate of six survivors for every one person who completes suicide. By their calculations, approximately 200,000 individuals living in the United States are survivors. Survivors report symptoms of posttraumatic stress disorder and complicated grief (American Foundation for Suicide Prevention [AFSP], 2008). They experience

stigma because of the mode of their loved ones' deaths and a lack of visibility and support in the community (AFSP, 2008).

Campus Suicide as a National Public Health Issue

Although campus shootings-turned-suicides such as Cho's at Virginia Tech and, more recently, Colton Tooley's at the University of Texas are exceedingly rare events, campus suicide is a significant problem (Palmer, 2010). For people between the ages of 20 and 24, suicide is the third leading cause of death (CDC, 2003). In 2007, 105 college students in the United States completed suicide, and 20 times that number were hospitalized for mental health problems (Gallagher, 2007). Suicide rose in prominence as a cause of death among young people over the second half of the last century not because the rate of suicide increased per se, but because infectious diseases have come to cause fewer deaths among young people (Haas et al., 2003). In other words, it has become less common for young people to die of natural causes, but the rate of suicide has remained the same over time despite innovations in mental health care. Suicide among young people who attend college began to decline in the 1980s, but this was due to the elimination of firearms from college campuses and the higher proportion of female students relative to male students, not to an improvement in college students' mental health (Schwartz, 2006).

In the most recent American College Health Association (ACHA) National College Health Assessment (2008), 10% of students reported "seriously considering attempting suicide" at least once over the past 12 months, and 2% reported actually attempting suicide at least once over the past 12 months (ACHA, 2008, p.13). Suicidal ideation and past suicide attempts both predict future completed suicides. Individuals

who have attempted suicide in the past are 100 times more likely to eventually complete suicide (Zhang, McKeown, Hussey, Thompson, & Woods, 2005). Because predicting specific incidents of completed suicides is nearly impossible, it benefits prevention programs to project to a broad audience in order to appeal to even a few suicidal students.

Completed suicide among young people is a relatively low base rate activity with only 12 out of every 100,000 people in this group dying from suicide annually (Suicide Prevention Resource Center [SPRC], 2004). University students are actually at reduced risk of suicide compared to individuals the same age not enrolled in college. Recent estimates indicate 7.5 in 100,000 college students complete suicide annually (Haas, Hendin, & Mann, 2003). However, this figure does not take into account suicides completed by former college students who have dropped out of school at least six months prior to killing themselves (Haas et al., 2003).

Suicide prevention is of importance to college campuses not because completed suicides are common but because the costs are great for even a single completed suicide. In terms of fiscal cost, lost productivity from the suicide of a young person is an enormous loss to society as it precludes him or her from contributing to our nation's economy and the development of his or her community before his or her career even begins. In terms of psychological cost, the death of a young person is often experienced as a more tragic event than the death of an older person especially when the death is seen as preventable (Gamino, Sewell, & Easterling, 1998; Gamino, Sewell, & Easterling, 2000). In a campus community, a completed suicide may cause grief for other students even if they were not close to the suicide decedent. A completed suicide can lead to the phenomenon of contagion, which occurs when other students attempt suicide after

hearing about the original suicide (AFSP, 2008). Because there is no cure for completed suicide, it must be treated more aggressively than other mental health problems with each college campus developing its own prevention, intervention, and postvention protocols using evidence-based practices (SPRC, 2004).

Risk Factors for Suicide

Because of the low base rate of suicide among college students, it is difficult to identify risk and protective factors for completed suicides in this group. Findings from studies of suicidal ideation and attempts in college students, studies of suicidal ideation and attempts by adolescents and adults, and studies of completed suicides by adolescents and adults can inform us about factors likely to predict completed suicide in college students.

Suicide and mental illness. The risk factor most strongly and consistently associated with suicidal ideation, suicide attempts, and completed suicides is the presence of a psychological disorder. Symptoms of depression have been associated with suicidal ideation in college students (Garlow et al., 2008). Diagnoses of any mood disorder or disruptive behavior disorder have been associated with attempted and completed suicide in adolescents between the ages of 13 and 19 (Rowan, 2001). Regarding adult suicide attempts, Zhang and colleagues (2004) found that a history of psychiatric illnesses predicted attempts for both men and women surveyed in the Third National Health and Nutrition Examination Survey. Psychiatric illness was defined as a participant endorsing clinically significant symptoms of depression. Meeting criteria for major depressive disorder was the strongest predictor of attempted suicide in the Zhang et al. (2004) study. Using data from the 1993 National Mortality Followback Survey, Kung, Pearson, and Liu

(2003) found that depressive symptoms predicted completed suicides for adult women and elderly men. It is important to note that none of the above studies examined the role of mental health disorders for which suicide attempts and self-injury without suicidal intent are primary diagnostic criteria (e.g., borderline personality disorder).

Suicide and substance abuse. Another risk factor associated with suicidal ideation, suicide attempts, and completed suicides is substance abuse. Abuse of tobacco, alcohol, and illicit drugs has been associated with suicidal ideation in college students (Brener, Barrios, & Hassan, 1999). In addition, the abuse of alcohol or drugs has been associated with attempted and completed suicide in adolescents between the ages of 13 and 19 (Rowan, 2001). Comorbidity of a mental health disorder with substance abuse increased the probability of completed suicide in an adolescent sample. Regarding adult suicide attempts, cigarette smoking predicted attempts for both men and women surveyed in the Third National Health and Nutrition Examination Survey (Zhang et al., 2004). In the Kung et al. (2003) study, individuals who completed suicides between the ages of 15 and 64 were more likely to have abused alcohol and marijuana. Toxicology tests examined by the National Violent Death Reporting System in thirteen states found that 33% of decedents had used alcohol, 16% had used opiates, 9% had used cocaine, 8% had used marijuana, and 4% had used amphetamines immediately prior to their suicide.

Suicide and cognitive factors. Another category of risk factors associated with suicidal ideation, suicide attempts, and completed suicides by young people is cognitive risk factors: hopelessness, helplessness, neuroticism, external locus of control, self-assessed problem-solving abilities, and general self-efficacy. Although these risk factors are beyond the scope of the current project, they are discussed here to provide context. A

survey drawing subjects from four different universities found that hopelessness and helplessness were higher among depressed students who reported suicidal ideation and suicide attempts than non-suicidal depressed students (Furr, Westefeld, Gaye, McConnell, & Marshall, 2001). A prospective study of suicide attempters aged 18-75 found that low self-appraised problem-solving ability and low general self-efficacy predicted which participants repeated a suicide attempt within the 18 months from pre-test to post-test (Dieserud, Roysamb, Braverman, Dalgard, & Ekeberg, 2003, p. 5).

Semi-structured interviews conducted with participants ages 18-24 who had made a suicide attempt that required medical intervention or had a high degree of potential lethality (i.e., using a gun or hanging as method of attempt) revealed significantly higher hopelessness, neuroticism, and external locus of control than interviews with matched controls (Beautrais, Joyce, & Mulder, 1999). Low self-esteem, impulsivity, and extraversion were also associated with attempted suicide, but these associations were no longer significant after controlling for hopelessness, neuroticism, and external locus of control (Beautrais et al., 1999).

Although impulsivity has been found to predict completed suicides in multiple studies, its role as a direct contributing factor is controversial (Smith, Witte, Teale, King, Bender, & Joiner, 2009). Impulsivity is a feature of psychological disorders that predict suicidality (for example, bipolar disorder). Using Joiner’s (2005) model of completed suicide, impulsivity appears to have an indirect effect on completed suicide by, over time, exposing an individual to risky situations, desensitizing him or her to the anxiety-provoking task of completing suicide (Smith et al., 2009).

The relative contribution of impulsivity to suicidality is relevant to campus suicide prevention. If we assume that completed suicides are largely the product of impulsive behavior, there is little reason to change beliefs about help-seeking that may not be salient at a crisis point. However, if we assume that completed suicide is the end point of a deliberative process starting with suicidal ideation, we can intervene on beliefs about help-seeking at any time during that process. Furthermore, by changing beliefs on a campus level rather than an individual level, we can create an informal network of people who can identify suicidal individuals and refer them to appropriate sources of help.

Preventive Factors for Suicide

The factor most strongly and consistently associated with a reduction in suicidal ideation, suicide attempts, and completed suicides is mental health treatment. A comparison of suicidal young people (mean age 17) who were referred for mental health treatment showed that those who accepted treatment had less suicidal ideation and fewer attempts post-treatment and at a two-year follow-up than those who did not accept treatment, even when contact with services was relatively brief (Cosgrave et al., 2007).

Pharmacotherapy. A number of different psychotropic medications are prescribed to treat depression, suicidal ideation, and suicide attempts. For individuals suffering from bipolar disorder, long-term Lithium reduces likelihood they will complete suicide than individuals with bipolar disorder who do not take Lithium (Muller-Oerlinghausen, Felber, Berghofer, Lauterbach, & Ahrens, 2005). A recent meta-analysis found that, for adolescents and college aged young adults suffering from major depressive disorder, selective serotonin reuptake inhibitors (SSRIs) such as Prozac reduce

depressive symptoms and make it less likely they will complete suicide. However, SSRI use is associated with a small, not statistically significant increase in suicidal ideation and attempts in this group (Bridge et al., 2007).

Researchers studying trends in SSRI prescriptions and completed suicides in communities found the inverse relationship between SSRI use and suicidality to be strongest for low-income males age 15-19 (Olfson, Shaffer, Marcus, & Greenberg, 2003). Using this same methodology, Gibbons, Hur, Bhaumik, and Mann (2005) found an inverse relationship between SSRI use and suicidality.

Psychotherapy. Cognitive-behavioral therapy (CBT), an action-oriented therapy that focuses on changing cognitive risk factors for suicide and managing aspects of the suicidal person's behavior and environment, has been shown to have significant treatment effects when compared with minimal treatment or treatment as usual in a recent meta-analysis (Tarrier, Taylor, & Gooding, 2008). Examples of cognitive-behavioral interventions for suicidality include increasing engagement in pleasurable activities and restricting access to lethal means of suicide.

Dialectical behavior therapy (DBT), a form of CBT developed to treat individuals with borderline personality disorder, greatly reduces the number and intensity of suicide attempts and self-injury without suicidal intent among individuals who complete the treatment (Goldney, 2005). Like CBT, DBT focuses on changing cognitive risk factors for suicide, but also teaches suicidal individuals how to regulate overwhelming emotions without resorting to substance abuse, suicide attempts, or self-injury without suicidal intent.

Informal contact. Suicide hotlines and written correspondence with suicidal patients have been shown to have small positive effects in reducing suicidal ideation and attempts. In a review of suicide prevention methods, Shaffer and Craft (1999) found that, overall, suicide hotlines are successful in reducing suicidal ideation and attempts by young female callers. However, this study and others have demonstrated that suicide hotlines have less of an impact on completed suicide rates in the broader community. Of 14 suicide hotline evaluations reviewed by Lester (1997), seven found an association between the presence of a hotline and a reduction in suicides in the community, one found an association between a hotline and an increase in suicides in the community, and six found no association between hotlines and suicide trends.

Written informal contact has also been found to have a positive effect on suicidal individuals. Carter, Clover, and Whyte (2005) developed a suicide prevention project in which suicide attempters were sent eight follow-up postcards over the course of 12 months after being discharged from the hospital. Although the proportion of patients who made at least one repeated attempt was the same for those who did and did not receive postcards, they found that patients who received the postcards made fewer repeated attempts than patients who did not receive the postcards (Carter et al., 2005). In a different study, Morgan, Jones, and Owen (1993) provided suicide attempters with a green card listing contact information for a suicide crisis hotline. They found that patients were comforted by this small gesture and were less likely to make a repeat attempt than those who did not receive a card, even if they did not call the hotline (Morgan et al., 1993).

Campus Mental Health Service Utilization

The effectiveness of psychotherapy, pharmacotherapy, and informal contact on reducing suicidal ideation and suicide attempts speaks to the importance of engaging college students with emotional problems in mental health services. In the most recent ACHA National College Health Assessment (2008), approximately ten percent of students reported having felt “very sad,” “so depressed it was difficult to function,” and/or “hopeless” at least eleven times within the last year (p.13). According to another survey of depressive symptoms among college students, 53% of freshman reported experiencing mild to moderate depression (Furr et al., 2001).

In addition to emotional problems that develop while students attend college, more students than ever are entering college with existing mental health problems (Haas et al., 2003). Students entering college with depression or a substance abuse problem are predisposed to experience suicidal ideation and suicide attempts during their college careers. According to the 2007 monograph of the International Association of Counseling Services (IACS), over half of university counseling center directors report that an increase in self-injurious behavior by students and an increase in crisis counseling are major problems at their centers (Gallagher, 2007).

Although there has been an apparent increase in need for services, there has not been a commensurate increase in utilization of services. In one study of campus mental health service utilization, only ten percent of the students surveyed reported having ever used campus counseling services. Common reasons students give for not using counseling services are that they do not have time to use them or do not know about them (Yorgason, Linville, & Zitzman, 2008).

In some samples, a direct relationship is found between level of distress and likelihood to use counseling services such that students who report they are “mentally distressed” are more likely to know about campus counseling services and utilize them than students who are not distressed (Yorgason et al., 2008); however, this is not always the case. Recent screening projects at universities have found that between 75 and 85 percent of students who report moderate to severe depression and/or suicidal ideation are not receiving treatment (Garlow et al., 2008; Rosenthal & Wilson, 2008). Students are also often reluctant to seek help for substance abuse problems, which are associated with suicidality.

The Theory of Planned Behavior

Ajzen’s (1991) Theory of Planned Behavior (TpB) is an extension of Fishbein and Ajzen’s (1975) Theory of Reasoned Action (TRA), a model that predicts behavior from self-reported intentions to engage in the target behavior. Intentions are, in turn, predicted by attitudes toward the behavior and perceived social norms relevant to the target behavior. Both TpB and TRA are motivational models in that cognitive antecedents act upon behavioral intentions and eventual target behavior by increasing or decreasing motivation to perform the target behavior.

In TRA, attitudes are defined as the extent to which target behaviors are positively or negatively valued based in part on anticipated outcomes (Fishbein & Ajzen, 1975). For example, if an individual believes seeking help for himself is extremely likely to improve his mood, his attitude toward help-seeking will be strongly positive. Subjective norms are defined as the social pressure to engage in target behaviors as perceived by an individual (Fishbein & Ajzen, 1975). For example, if an individual believes significant

others in her life will think she "crazy" if she sees a therapist, she will be less motivated to engage in this behavior.

Both attitudes and perceived norms are influenced by all readily accessible beliefs about the specific behavior being predicted. Attitudes best predict behavior when they are strongly negative or strongly positive, when they are salient at the time of the target behavior, and when they are specific (Ajzen & Gilbert Cote, 2008). For example, if an individual has a strongly positive attitude toward dropping into campus counseling services, she will be more likely to perform that specific behavior than if she holds a moderate attitude toward help-seeking more generally. If the beliefs that contribute to her positive attitude are readily accessible at the time of the target behavior because she has recently heard a presentation about the counseling center in her freshman orientation class, she will be even more likely to use campus mental health services.

The Theory of Planned Behavior retains all of the variables from the original TRA model, but adds perceived control over performing the target behavior as a factor that predicts behavioral intentions (Ajzen, 1991). In 2002, Ajzen examined variables contributing to perceived behavioral control (PBC) and found that self-efficacy and controllability both explained a significant amount of variance in PBC. If an individual lacks information needed to make an appointment with a therapist or believes he lacks the confidence to speak to a person he does not know, his PBC for help-seeking will be low and he will be less motivated to engage in this behavior. A meta-analysis of 185 TpB studies revealed that, although the model explained on average 27% of target behaviors observed and 39% of behavioral intentions to engage in target behaviors, the PBC variable alone explained 11% of the variance in target behaviors (Armitage & Connor,

2001). Two factors not contained in the original TpB—past behavior and actual behavioral control— add significant incremental validity to the model.

The Theory of Planned Behavior has been found to predict engaging in protective health behaviors such as using condoms (Albarracin et al., 2001; Bennett & Bozionelos, 2000), exercising (Biddle & Nigg, 2000; Blue, 1995), and driving within the speed limit (Aberg & Warner, 2008). It has also been found to predict engaging in pro-social behaviors such as donating blood (Amponsah-Afuwape, Myers, & Newman, 2002; Armitage & Conner, 2001). The Theory of Planned Behavior has been used to predict help-seeking for mental health problems. For example, Smith, Tran, and Thompson (2008) found that male college students' intentions to seek help for mental health problems were predicted by endorsement of "masculine ideology" mediated by their attitudes toward help-seeking (p. 180).

Help-seeking Through a TpB Lens

There is evidence that attitudes toward help-seeking, perceived social norms about help-seeking, and perceived behavioral control predict behavioral intentions to seek help and actual help-seeking for suicidality. This evidence emerges from studies of help-seeking by adolescents, studies of group differences in help-seeking, and studies of *help negation* by suicidal individuals. Help negation is the tendency for suicidal individuals to not seek help for suicidality (Deane, Wilson, & Ciarrochi, 2001; Wilson, Deane, & Ciarrochi, 2005; Wilson, Rickwood, & Deane, 2007).

Help-seeking by adolescents. Two constructs that have emerged from the study of adolescent suicidality that are likely to be associated with attitudes, perceived social norms, and perceived behavioral control are stigma and mental health literacy. Both

adolescents who have attempted suicide and survivors of completed suicides among adolescents have stated that the stigma of seeking help for suicidality prevented suicidal individuals from seeking help from both formal and informal sources (Gilchrist & Sullivan, 2006; Moskos, Olson, Halbern, & Gray, 2007).

Stigma is related to stereotypes about individuals suffering from mental health problems; for example, that individuals with psychological disorders are dangerous or incompetent (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). Individuals often avoid seeking help in order to avoid the stigmatizing labels that accompany mental health treatment (Corrigan, 2004). Stigma is also related to beliefs that an individual should be able to solve his or her problems his/herself and that help-seeking is a sign of failure. Suicidal adolescents who endorse beliefs that they should be self-reliant are less likely to call a suicide hotline (Gould, Greenberg, Munfakh, Kleinman, & Lubell, 2006).

Survivors of adolescent suicides have stated that their lost loved ones held stereotype-consistent, inaccurate beliefs about etiology, symptoms, and treatment for mental health problems. Suicidal adolescents are less likely to seek help when they lack information about the severity and course of suicide risk factors and when they inaccurately equate all treatment with hospitalization (Cigularov, Chen, Thurber, & Stallones, 2008). Conversely, mental health literacy, or holding accurate beliefs about etiology, symptoms, and treatment for mental health problems is associated with increased help-seeking (Goldney, Fisher, Wilson, & Cheok, 2002). In particular, biological attributions of mental illness have been found to decrease endorsement of stereotypes and perceptions of stigma and to increase help-seeking (Han, Chen, Hwang, &Wei, 2006).

Although mental health literacy can increase through contact with the mental health system, this is not always the case (Goldney et al., 2002). Patients are not always given accurate and complete information about their diagnoses and how to manage their symptoms (Goldney et al., 2002). Explicit education in mental health literacy and equal status contact with stigmatized individuals is necessary to counteract stigma (Corrigan, River, Lundin, Penn, Uphoff-Wasowski, & Campion, et al., 2001; Sharp, Hargrove, Johnson, & Deal, 2006).

Individuals who hold stigmatizing beliefs toward mental illness and seeking help and who have low mental health literacy are likely to have negative attitudes toward help-seeking and to believe that seeking help is frowned upon by important others, such as peers. Individuals who lack information about mental health and treatment may not believe they are capable of seeking help or know how to get help.

Group differences in help-seeking. Suicide disproportionally affects different social groups. Men are four times more likely than women to die from suicide (CDC, 2008). Women are three times more likely than men to attempt suicide, but they tend to use less lethal means and are less likely to actually die as a result (CDC, 2008). Gay, lesbian, and bisexual adolescents are four times more likely than heterosexual adolescents to attempt suicide (Cochran, Sullivan, & Mays, 2003). Similarly, members of different social groups vary in their likelihood to seek help for emotional problems.

Young women are more likely than young men to seek help from both formal and informal sources (Goldston et al., 2008; Sen, 2004; Yakushko et al., 2008; Yorgason et al., 2008). This gender difference is created by differing attitudes about help-seeking by young women and men. Adherence to male gender roles, which emphasize self-reliance

and emotional control, has been found to predict negative attitudes toward self-disclosure and help-seeking, which then predict less help-seeking for mental health problems by men (Pederson & Vogel, 200; & Smith et al., 2008).

Gay, lesbian, and bisexual individuals are more likely than heterosexual individuals to seek help from formal sources such as psychiatrists, psychologists, and professional counselors (Cochran, 2001; Cochran, Sullivan, & Mays, 2003). Gay, lesbian, and bisexual individuals also often seek help for emotional problems from informal networks of sexual minorities (Willging, Salvador, Kano, 2006). High levels of help-seeking from formal sources by sexual minorities has been attributed to positive attitudes toward help-seeking in the gay community (Cochran, 2001). It is also possible that gay, lesbian, and bisexual individuals who hold positive attitudes toward help-seeking are also more comfortable disclosing their sexual orientation for research purposes (Cochran et al., 2003).

Among individuals between the ages of 15 and 24, members of racial and ethnic minority groups suffering from depression and self-injurious behavior are less likely than Whites to seek help from authority figures including parents, teachers, and formal helpers (Goldston et al., 2008; Sen, 2004). African American and Asian American youth are also less likely than Whites to seek help from peers. Although African American and Asian American youth are less likely to exhibit self-injury without suicidal intent than Whites, they are more likely to be depressed (Goldston et al., 2008).

African Americans report higher levels of perceived stigma associated with mental health problems, including suicidality. The African American culture emphasizes self-reliance and discourages help-seeking. These beliefs may affect behavioral

intentions to seek help and actual help-seeking through subjective norms common within the African American culture. Disenfranchisement by the majority culture and negative past experiences with the mental health system may lead to negative attitudes toward mental health services and low perceived behavioral control over help-seeking (Goldston et al., 2008).

For Asian Americans, help-seeking for mental health problems is associated with feelings of shame. Endorsing attitudes reflective of “counseling stigma” is negatively associated with intentions to seek help from mental health services for Asian American women (Kim & Omizo, 2003, p. 343). In addition, the religious beliefs of many first and second generation Asian Americans emphasize fatalism and the acceptance of suffering, which may dissuade Asian Americans from help-seeking (Goldston et al., 2008). These are both likely to impact help-seeking through negative attitudes and subjective norms. Fatalistic beliefs may affect help-seeking by generating low perceived behavioral control.

Members of the group most likely to complete suicide—Native Americans, especially Alaskan natives—are least likely to seek help (Freedenthal & Stiffman, 2007, Goldston et al., 2008). Help-seeking by Native Americans is thought to be influenced by many of the same factors as that of African Americans, but high rates of substance abuse and suicidality among Native American youth amplify the urgency of increasing help-seeking in this group.

A factor common to many racial and ethnic minority groups is the tendency to rely on informal networks for support in times of crisis, which may lead minority group members to not seek out formal mental health services even when they do seek help.

Informal help-seeking only improves outcomes for suicidality if members of one's informal network are motivated to seek out formal sources of help.

Although less extensively studied, perceived stigma, self-reliance, disenfranchisement, negative experiences with mental health services, fatalistic religious beliefs, culture-specific beliefs about mental health symptoms, and reliance on informal support networks are also common among individuals from rural areas. Not surprisingly, individuals from rural areas have also had historically low rates of help-seeking for mental health problems (Fiske, Gatz, & Hannell, 2005; Jackson et al., 2007).

The strong and consistent group differences in help-seeking found in suicide prevention literature operate through differences in perceived stigma, mental health literacy, and attitudes toward mental health treatment (Goldston et al., 2008). These findings are consistent with Ajzen and Manstead's (2007) argument that demographic variables predict adherence to health practices only to the extent that they predict attitudes, subjective norms, and perceived behavioral control. However, it is important to keep in mind that risk and preventative factors such as depression, substance use, access to firearms, and access to treatment are also unevenly distributed among majority and minority groups and between genders. These can also exert an influence on help-seeking; for example, by limiting the amount of time between ideation and attempt.

Help negation. Help negation occurs when the severity of suicidal ideation or attempt is inversely related to the propensity to seek help. For adolescents and young adults, the help negation effect is strongest for parents (Wilson et al., 2007). In other words, suicidal adolescents and young adults are least likely seek or accept help from parents compared to other significant individuals. Suicidal individuals' help negation for

formal sources of help such as school counselors, psychologists, and psychiatrists has been found to be mediated by attitudes toward formal sources of help (Barnes, Ikeda, & Kresnow, 2001; Wilson et al., 2005). Suicidal individuals are more likely to seek help from informal sources, provided they hold beliefs that doing so will have desirable outcomes.

Some cognitive features of suicidality contribute to negative attitudes toward help-seeking. Hopelessness has been found to mediate help negation for informal sources of help such as peers, teachers, and suicide hotlines for adolescents and young adults (Gould, Greenberg, Munfakh, Kleinman, & Lubell, 2006; Wilson et al., 2007). Suicidal adolescents and young adults avoid seeking help from friends, family, and other informal contacts because they do not believe doing so will alleviate their emotional distress or solve their problem. Suicidal adolescents and young adults often see friends, more so than family members and other informal contacts, as their only viable sources of help (Deane et al., 2001). Because individuals with high levels of hopelessness are unlikely to seek out help for themselves and are at increased risk of suicide, the gatekeeper model of suicide prevention is of great clinical utility (Furr et al., 2001).

Current Project

The purpose of the current project is to relate disparate lines of research on suicide prevention and help-seeking using TpB. Two studies examined college students' beliefs about help-seeking for emotional problems. Study 1 was an exploratory pilot study designed to elicit students' modal attitudes toward, perceived social norms about, and perceived behavioral control over a number of help-seeking behaviors. Study 2 was

an observational study designed to predict students' behavioral intentions to use campus mental health services using TpB.

Study 1

Study 1 was designed to examine students' beliefs about different help-seeking behaviors. Targeted behaviors included looking up information about emotional problems over the Internet, talking to friends or family members about an emotional problem, making an appointment or dropping in to campus mental health services, attending regular therapy through campus mental health services, making an appointment or dropping in to an off-campus mental health resource, and attending regular therapy through an off-campus mental health resource.

Study 1 was conducted to create items to serve as indirect measures of attitudes, perceived social norms, and perceived behavioral control for the TpB questionnaire used in Study 2. Indirect items were dropped for the final version to improve the questionnaire's validity and ease of completion. Study 1 is presented in order to report modal attitudes, perceived social norms, and perceived behavioral control beliefs about help-seeking among university students, as well as to provide context for Study 2 by reporting attitudes, perceived social norms, and perceived behavioral control beliefs about using campus mental health services.

Because Study 1 was an exploratory pilot study, there were no a priori hypotheses. It was anticipated that participants would be able to generate both positive and negative attitudes toward all six help-seeking behaviors, that they would be able to name people who approved of and disapproved of all six help-seeking behaviors, and that they would be able to identify enabling and inhibiting circumstances for each of the help-

seeking behaviors. It was expected that modal attitudes, perceived social norms, and perceived behavioral control would vary between help-seeking behaviors.

Method

Participants. Thirty-seven Marshall University undergraduate students participated in exchange for extra credit. Of these, 57% of participants (n = 21) identified as female, 41% (n =15) identified as male, and one participant chose not to identify his or her gender. The sample was predominantly Caucasian, with 81% of participants (n = 30) identifying as Caucasian or White, 11% of participants (n = 4) identifying as African American or Black, 5% of participants (n = 2) identifying as Hispanic, and 1 participant identifying as Arab American. Participants' ages fell between 19 and 58, with a mean age of 25 and a modal age of 22. Regarding class designation, 24% of participants (n = 9) identified as freshmen, 19% (n = 7) as sophomores, 19% (n = 7) as juniors, 19% (n = 7) as seniors, 5% (n = 2) as returning students, and 5% (n = 2) as other. The remaining participants chose not to identify their class designation.

Materials. An open-ended attitude elicitation survey was generated for Study 1 using guidelines from Ajzen's (2006) *Constructing a Theory of Planned Behavior Questionnaire* manual and Francis et al.'s (2004) *Constructing Questionnaires Based on the Theory of Planned Behavior: A Manual for Health Services Researchers* (see Appendix B). Four items were included to obtain demographic information. Two open-ended items asked participants to list their age and race. Two multiple-choice items asked participants to identify their gender and class designation.

Eighteen items were included to elicit positive and negative attitudes about six help-seeking behaviors: looking up information about emotional problems over the

Internet, talking to friends or family members about an emotional problem, making an appointment or dropping in to campus mental health services, attending regular therapy through campus mental health services, making an appointment or dropping in to an off-campus mental health service, and attending regular therapy through an off-campus mental health service. For each behavior, one item asked participants to list as many advantages of the behavior as they could think of, one item asked participants to list as many disadvantages of the behavior as they could think of, and one item asked participants if there was anything else that came to mind when they thought about the behavior.

Eighteen items were included to elicit significant individuals who would approve or disapprove of each of the six help-seeking behaviors. Eighteen items were included to elicit circumstances that would make it easier or more difficult for the participant to engage in each of the six help-seeking behaviors. These items were structured in the same way as the 18 attitudes items. Attitudes, perceived social norms, and perceived behavioral control sections were counterbalanced between participants to counteract fatigue. See Appendix A for the questionnaire in full.

Coding. Responses were coded using post hoc categories. For each question, the experimenter read all participants' responses, identified response categories as they emerged through repeated and similar responses, and tallied the number of responses that reflected each category. In the case that a participant listed more than one advantage, disadvantage, significant other, or relevant circumstance, each separate idea was coded under the appropriate category. For questions that asked participants to list anything else that came to mind about the target help-seeking behavior, responses were assigned as

advantages, disadvantages, approving others, disapproving others, enabling circumstances, or inhibiting circumstances, then coded appropriately. Responses to such questions that could not be assigned in this manner (for example, "just depends") were not coded.

Procedure. Participants were recruited from upper-level psychology courses. They were informed of dates and times the psychology lab would be available for them to complete the survey packet for this study. Participants were seated in the lab in groups of approximately twenty, in desks spaced one and one half feet apart. After signing in, participants were given a 9"x12" manila envelope containing all study materials. No identifying information was collected. Participants were instructed to seal all study materials in the envelopes they were given and to return the packet to the experimenter as they finished. As participants turned in their materials, they were given a debriefing form containing information about the study and campus mental health services and were thanked for their participation.

Results

After the responses of each participant for each item were tallied, subtotals were summed for advantages, disadvantages, approving others, disapproving others, enabling circumstances, and inhibiting circumstances for each help-seeking behavior. The number of responses in each response category and the proportion of responses in each response category for each help-seeking behavior are reported in Appendix C. Attitudes, perceived social norms, and perceived behavioral control regarding dropping into or attending regular therapy through campus mental health services are discussed below.

Attitudes. Participants reported 46 advantages to dropping in to a campus mental health resource and 51 advantages to attending regular therapy on campus. These were coded into 17 and 13 response categories, respectively. The majority of responses regarding advantages of using campus mental health services fell under the "helpful" category. Responses that included the word "help" or "helpful" were coded in this category, which was true for both dropping in and regular therapy. Participants reported that another advantage of dropping in to campus mental health services is getting advice; for example, "you get professional advice" (Participant 1), "getting outside opinions may be good" (Participant 34). Nearly one fourth of participants believed regular therapy on campus could help them resolve a problem; for example, "It can show rapid improvement in your problem" (Participant 22), "To possibly find a resolution for your problem" (Participant 27), "You can maybe avoid the problem becoming too much to handle" (Participant 33).

All categories of responses given to the question asking the advantages of dropping into campus mental health services are listed along the Y-axis of Table 1. The number of times a response fell into a response category, the percentage of participants giving each type of response, and the number of responses falling into each category divided by the total number of advantages listed are included in the table to indicate frequency and proportion of each response category. See Table 2 for advantages of regular therapy through campus mental health services.

Table 1

Advantages of Dropping into Campus Mental Health Services

Attitude	Number of times reported	Percentage of participants who reported	Percentage of advantages this category
Would be affordable	6	16%	13%
Would be helpful	5	14%	11%
Would give me advice	5	14%	11%
Would be convenient to get there	5	14%	11%
Would act professionally	4	11%	9%
Would be easy to access service	3	8%	7%
Would be comfortable/easy to talk to	3	8%	7%
Would be unbiased	3	8%	7%
Would give me information	2	5%	4%
Would understand student issues	2	5%	4%
Would be anonymous/private	1	3%	2%
Would refer me to get help	1	3%	2%
Would help me understand what to expect	1	3%	2%

Table 2

Advantages of Regular Therapy through Campus Mental Health Services

Attitude	Number of times reported	Percentage of participants who reported	Percentage of advantages this category
Would be helpful	13	35%	45%
Would help me resolve the problem	9	24%	18%
Would make me feel better	8	22%	16%
Would give me advice	6	16%	12%
Would provide me with continuity	5	14%	10%
Would allow me to express my feelings	3	8%	6%
Would be affordable	2	5%	4%
Would give me information	2	5%	4%
Would act professionally	2	5%	4%
Would be convenient to get there	1	3%	2%
Would help me learn about myself	1	3%	2%
Would provide support	1	3%	2%
Would understand student issues	1	3%	2%

Participants reported 37 disadvantages to dropping in to campus mental health services and 16 disadvantages to attending regular therapy on campus. These were coded into 12 and 7 response categories, respectively. Nearly one fifth of participants believed dropping in to campus mental health services might not be private; for example, "Your friends may see you go there" (Participant 2), "You may know students and faculty in there" (Participant 7), "They are students, may run into them somewhere" (Participant 31).

Participants were also concerned that campus mental health service staff would be less professional than off-campus mental health service staff; for example, "They may not be as knowlegeable [sic] or profesional [sic] as a private practice" (Participant 9), "They are students" (Participant 14), "Not all are professionals yet" (Participant 24). Regarding regular therapy on campus, participants believed it would be difficult to find time to attend appointments and that it would be too expensive.

All categories of responses given to the question asking the disadvantages of dropping into campus mental health services are listed along the Y-axis of Table 3. The number of times a response fell into a response category, the percentage of participants giving each type of response, and the number of responses falling into each category divided by the total number of disadvantages listed are included in the table to indicate frequency and proportion of each response category. See Table 4 for disadvantages of regular therapy through campus mental health services.

Table 3

Disadvantages of Dropping into Campus Mental Health Services

Attitude	Number of times reported	Percentage of participants who reported	Percentage of disadvantages this category
Would not act professionally	7	19%	19%
Would not be private	7	19%	19%
Would feel uncomfortable stranger	6	16%	16%
Would feel intrusive	6	16%	16%
Would make me feel uncomfortable	4	11%	11%
Would not be helpful	2	5%	5%
Would not understand my problem	1	3%	3%
Would not be able to trust them	1	3%	3%
Would not care about me	1	3%	3%
Would not fit into my schedule	1	3%	3%
Would be misdiagnosed	1	3%	3%

Table 9

Disadvantages of Regular Therapy through Campus Mental Health Services

Attitude	Number of times reported	Percentage of participants who reported	Percentage of disadvantages this category
Would be too expensive	10	27%	48%
Would not fit into my schedule	3	8%	14%
Would not be private	3	8%	14%
Would be inconvenient to get there	2	5%	10%
Would be misdiagnosed	1	3%	5%
Would not be helpful	1	3%	5%
Would make me feel uncomfortable	1	3%	5%

Perceived social norms. Participants reported 60 significant others approving of dropping in to campus mental health services and 56 significant others approving of regular therapy on campus. These were coded into 13 and 14 categories, respectively. The most common significant other listed as approving of using campus mental health services was a friend or friends, followed by a mother, and "family" without specifying an individual. Participants reported 26 significant others disapproving of dropping in to

campus mental health services and 34 significant others disapproving of regular therapy on campus. These were coded into 10 and 11 categories, respectively.

All categories of responses given to the question asking about others approving of dropping into campus mental health services are listed along the Y-axis of Table 5. The number of times a response fell into a response category, the percentage of participants giving each type of response, and the number of responses falling into each category divided by the total number of approving others listed are included in the table to indicate frequency and proportion of each response category. See Table 6 for others approving of regular therapy through campus mental health services.

Table 5

Others Approving of Dropping into Campus Mental Health Services

Relationship	Number of times reported	Percentage of participants who reported	Percentage of approving others this category
Friend	11	30%	18%
Mother	11	30%	18%
Everyone I know	8	22%	13%
Family, unspecified	7	19%	12%
Father	6	16%	10%
Sibling	3	8%	5%
Extended family members	3	8%	5%
No one I know would approve	3	8%	5%
Romantic partner	2	5%	3%
Co-worker	2	5%	3%
Child	1	3%	2%
Therapist	1	3%	2%
Coach/teammates	1	3%	2%

Table 6

Others Approving of Regular Therapy Through Campus Mental Health Services

Relationship	Number of times reported	Percentage of participants who reported	Percentage of approving others this category
Friend	14	38%	25%
Family, unspecified	11	30%	20%
Mother	9	24%	16%
Romantic partner	5	14%	9%
Everyone I know	4	11%	7%
Father	3	8%	5%
No one I know would approve	2	5%	4%
Co-worker	2	5%	4%
Sibling	1	3%	2%
Extended family members	1	3%	2%
Child	1	3%	2%

Half of participants reported that no one they know would disapprove of them dropping into a campus mental health resource. The most commonly referenced significant other disapproving of dropping in was a father. Over one third of participants reported that no one they know would disapprove of them attending regular therapy on campus. The most commonly referenced significant others disapproving of regular therapy were fathers, siblings, or extended family members. However, the absolute number of times these were referenced was relatively small.

All categories of responses given to the question asking about others disapproving of dropping into campus mental health services are listed along the Y-axis of Table 7. The number of times a response fell into a response category, the percentage of participants giving each type of response, and the number of responses falling into each category divided by the total number of disapproving others listed are included in the table to indicate frequency and proportion of each response category. See Table 8 for others disapproving of regular therapy through campus mental health services.

Table 7

Others Disapproving of Dropping into Campus Mental Health Services

Relationship	Number of times reported	Percentage of participants who reported	Percentage of disapproving others this category
No one I know would disapprove	13	35%	50%
Father	4	11%	15%
Friend	2	5%	8%
Family, unspecified	1	3%	4%
Extended family members	1	3%	4%
Romantic partner	1	3%	4%
Coach/teammates	1	3%	4%
Everyone I know	1	3%	4%
No one I know cares	1	3%	4%

Table 8

Others Disapproving of Regular Therapy through Campus Mental Health Services

Relationship	Number of times reported	Percentage of participants who reported	Percentage of disapproving others this category
No one I know would disapprove	14	38%	41%
Father	3	8%	8%
Sibling	3	8%	8%
Extended family members	3	8%	8%
Mother	2	5%	6%
Family, unspecified	2	5%	6%
Friend	2	5%	6%
Romantic partner	2	5%	6%
Coach/teammates	1	3%	3%
Employer	1	3%	3%
Everyone I know	1	3%	3%

Perceived behavioral control. Participants reported 31 enabling conditions for dropping in to campus mental health services and 35 enabling conditions for attending regular therapy on campus. These were each coded into nine categories. Nearly half of participants reported that they would be more likely to drop in to campus mental health services if they realized they had a problem. Nearly one-third of participants listed this

response as an enabling circumstance for attending regular therapy on campus. For both dropping in and attending regular therapy, participants reported they would be more likely to use campus mental health services if they had time to attend, if services were conveniently located, and if services were affordable.

All categories of responses given to the question asking the enabling circumstances for dropping into campus mental health services are listed along the Y-axis of Table 9. The number of times a response fell into a response category, the percentage of participants giving each type of response, and the number of responses falling into each category divided by the total number of enabling circumstances listed are included in the table to indicate frequency and proportion of each response category. See Table 10 for circumstances enabling regular therapy through campus mental health services.

Table 9

Enabling Circumstances for Dropping into Campus Mental Health Services

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I realized I had a problem	15	41%	48%
If it was affordable	4	11%	13%
If it was easy to get there	4	11%	13%
If I had the time to go	3	8%	10%
If I knew it would be private	1	3%	3%
If I had Internet access	1	3%	3%
If another person referred me	1	3%	3%
If a friend was not available	1	3%	3%
If it was confidential	1	3%	3%

Table 10

Enabling Circumstances for Regular Therapy through Campus Mental Health Services

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I realized I had a problem	11	30%	31%
If I had the time to go	6	16%	17%
If it was affordable	5	8%	14%
If it was easy to get there	5	8%	14%
If it was easy to access the service	3	8%	9%
If others accepted my choice	2	5%	6%
If another person referred me	1	3%	3%
If a friend was not available	1	3%	3%
If I were willing to go	1	3%	3%

Participants reported 34 inhibiting circumstances for dropping in to campus mental health services and 36 inhibiting circumstances for attending regular therapy on campus. These were coded into 15 and 12 categories, respectively. One-fifth of participants reported the biggest barrier to dropping in to campus mental health services was being unable to find time to do so. A lack of privacy was the next most frequently reported inhibiting circumstance reported by participants. Participants also reported they did not know where to go, were not willing to go, and believed campus mental health services were too expensive. Time was the most frequently reported inhibiting factor for attending regular therapy on campus as well, with over one fourth of participants reporting this factor. One quarter of participants also believed regular therapy on campus would be too expensive. Eleven percent of participants reported that questions about the credibility of campus mental health service staff would inhibit them from attending regular therapy on campus. They were also deterred by the location being inconvenient and the prospect of talking to a stranger.

All categories of responses given to the question asking inhibiting circumstances for dropping into campus mental health services are listed along the Y-axis of Table 11. The number of times a response fell into a response category, the percentage of participants giving each type of response, and the number of responses falling into each category divided by the total number of inhibiting circumstances listed are included in the table to indicate frequency and proportion of each response category. See Table 12 for circumstances inhibiting regular therapy through campus mental health services.

Table 11

Inhibiting Circumstances for Dropping into Campus Mental Health Services

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I did not have the time to go	7	19%	21%
If it was not private	5	14%	14%
If I didn't know where to go	3	8%	8%
If it was not affordable	3	8%	8%
If I were not willing to go	3	8%	8%
If I did not realize I had a problem	2	5%	5%
If I were being a burden	2	5%	5%
If it was difficult to get there	2	5%	5%
If I were uncomfortable stranger	2	5%	5%
If another person did not refer me	1	3%	3%
If it was not a credible source	1	3%	3%
If I felt judged	1	3%	3%
If it was difficult to access	1	3%	3%
If I did not know what to expect	1	3%	3%

Table 12

Inhibiting Circumstances for Regular Therapy through Campus Mental Health Services

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I did not have the time to go	10	27%	28%
If it was not affordable	9	24%	25%
If it was not a credible source	4	11%	11%
If it was difficult to get there	3	8%	8%
If I were uncomfortable stranger	3	8%	8%
If I did not realize I had a problem	2	5%	5%
If it was not private	5	14%	14%
If others did not accept my choice	1	3%	3%
If the helper did not seem open	1	3%	3%
If I didn't know where to go	1	3%	3%
If I felt judged	1	3%	3%
If it was difficult to access	1	3%	3%
If I were not willing to go	1	3%	3%

Discussion

As anticipated, participants generated both positive and negative attitudes toward all six help-seeking behaviors, named people who approved of and disapproved of all six help-seeking behaviors, and identified circumstances that would make availing themselves of each of the six help-seeking behaviors easier or more difficult. Modal attitudes, perceived social norms, and perceived behavioral control varied between help-seeking behaviors.

In general, participants had positive attitudes toward help-seeking. Overall, they listed more advantages than disadvantages to help-seeking. Participants saw helpfulness as the most important advantage of seeking help across help-seeking behaviors. In contrast, they saw the expense of some help-seeking behaviors as the most important disadvantage of seeking help overall. Several categories of advantages and disadvantages were listed but had low rates of endorsement, which shows that participants responded in an idiosyncratic manner. In other words, what was salient to one participant was not necessarily salient to another. Often, participants listed two to three advantages and two to three disadvantages for the same help-seeking behavior, which shows that participants had multiple simultaneous salient beliefs about each behavior and held ambivalent attitudes toward each behavior.

The majority of participants identified at least one individual who would approve of them seeking help. Similar to findings from help-negation studies, friends were the most important approving others. However, in this sample, parents were also believed to be supportive of help-seeking. Nearly half of participants could not identify anyone who would disapprove of them seeking help; however, half of participants had at least one

important person in their lives who disapproved of them seeking help. A small number of participants reported that no one would approve of them seeking help. It was beyond the scope of the pilot study to determine whether individuals without social support for help-seeking would be less likely than individuals with support to intend to seek help.

By far the most frequently cited enabling circumstance for help-seeking was recognizing an emotional problem, suggesting that improving students' mental health literacy may increase the likelihood they will seek help for an emotional problem. The most frequently cited inhibiting circumstances for help-seeking were cost and time. Because some participants had the impression that campus mental health services may be too expensive, communicating that therapy is free to students may increase the likelihood that students will use campus mental health services if they have an emotional problem.

Although many of the attitudes, social referent groups, and behavioral control factors reported were common to all help-seeking behaviors, there were some important differences. For example, participants expressed concern that campus mental health service staff might be unprofessional and that their privacy may be compromised. In order to encourage students to use campus mental health services, it is important to communicate to them that graduate student campus mental health service staff are receiving appropriate supervision. Students' concerns about privacy could be addressed by making entrances to campus mental health centers more private, offering other (e.g., educational) services at campus mental health centers to provide students with a socially acceptable reason for using them, or by initiating a stigma reduction campaign in order to alleviate students' need for privacy.

Study 2

Study 2 was designed to test three hypotheses regarding college students' intentions to use campus mental health services. It was hypothesized that the Theory of Planned Behavior predictor variables (attitudes, perceived social norms, and perceived behavioral control) would predict behavioral intentions to use campus mental health services even when controlling for predictor variables currently found in the literature: gender, race, sexual orientation, and rurality. It was hypothesized that the pattern of predictors of help-seeking currently found in the literature would be replicated. Female participants and White participants were expected to report stronger intentions to use campus mental health services than their counterparts. Gay, lesbian, and bisexual participants and those from an urban or suburban hometown were expected to report stronger intentions to use campus mental health services than their counterparts. Finally, it was hypothesized that the help refusal effect among suicidal participants currently found in the literature would be replicated. Participants who were suicidal, participants who were at risk for suicidality, participants who experienced emotional problems other than depression and substance dependence, and participants who did not experience emotional problems were expected to differ in strength of intention to use campus mental health services.

Method

Participants. One hundred forty-three Marshall University undergraduate students participated in exchange for extra credit. Seventy-four percent of participants (*n* = 106) participants identified as female and 26% (*n* = 37) identified as male. Eighty-five percent of participants (*n* = 121) listed their race as White or Caucasian, and 12% (*n* =

17) listed some other race. Ninety percent of participants (*n* = 128) identified as heterosexual, and 10% (*n* = 15) participants identified as gay, lesbian, or bisexual. Fifty-nine percent of participants (*n* = 85) indentified their hometown as an urbanized area (defined as having a population over 50,000 people) or an urban cluster (defined as having a population between 2,500 and 50,000 people). Forty-one percent of participants (*n* = 58) identified their hometown as a rural area (defined as having a population below 2,500 people). With regard to race, sexual orientation, and rurality, this sample is representative of the university's student body.

Theory of Planned Behavior. A Theory of Planned Behavior questionnaire was generated for Study 2 using guidelines from Ajzen's (2006) *Constructing a Theory of Planned Behavior Questionnaire* manual and Francis et al.'s (2004) *Constructing Questionnaires Based on the Theory of Planned Behavior: A Manual for Health Services Researchers* (see Appendix E). Three items each were direct measures of attitudes toward using campus mental health services, perceived social norms about using campus mental health services, perceived behavioral control over using campus mental health services, and behavioral intentions to use campus mental health series. Each item was rated on a seven-point Likert scale, with one indicating total disagreement with an item and seven indicating total agreement with an item. Anchors were counterbalanced throughout the questionnaire to counteract possible response sets. See Appendix D for the questionnaire in full.

Demographics. Four open-ended items were included to control for extraneous variables. Participants were asked the number of years they had attended Marshall, the number of therapy sessions they had attended on campus, the number of therapy sessions

they had attended off campus, and the name of an on-campus mental health resource. Three multiple-choice items were included to obtain demographic information regarding gender, sexual orientation, and rurality. One open-ended item asked participants to list their race. Gender, sexual orientation, race, and rurality were entered as dichotomous variables with "1" corresponding to membership in the group found to be more likely to seek help in the literature (female gender, sexual minority orientation, White race, urban/suburban hometown).

Suicidality. The Beck Scale for Suicidal Ideation (BSS; Beck, 1991) was administered as a measure of suicidality. The BSS is a self-report inventory consisting of 21 items, each rated on a three-point Likert scale, with zero indicating total disagreement with an item and two indicating total agreement with an item. The minimum possible score on the BSS is zero, signifying no suicidal ideation; the maximum possible score is 42, signifying severe suicidal ideation. The first five items of the BSS screen out respondents with no active or passive suicidal ideation. This minimizes intrusiveness for respondents not assumed to be suicidal, such as the majority of participants in our sample. Individual items are focused on respondents' desire to die, frequency of suicidal ideation, preparation for suicide, concealment of suicide, and previous suicide attempts. The internal consistency, test-retest reliability, and convergent validity of the BSS have been demonstrated in a number of validation studies performed by Beck and colleagues (Beck, Brown, & Steer, 1989; Beck & Steer, 1989; Beck & Steer, 1991; Beck, Steer, & Ranieri, 1988; Steer, Kumar, & Beck, 1993). Therefore, it was assumed that the BSS would have acceptable psychometric properties in this sample.

Emotional problems. The Counseling Center Assessment of Psychological Symptoms was administered as a measure of emotional problems commonly experienced by university students [CCAPS-62 (Center for the Study of Collegiate Mental Health, 2009)]. The CCAPS-62 is a self-report inventory consisting of 62 items, each rated on a five-point Likert scale, with zero indicating total disagreement with an item and four indicating total agreement with an item. The CCAPS-62 measures eight areas of emotional distress: depression, generalized anxiety, social anxiety, academic distress, eating concerns, family distress, hostility, and substance abuse. T-scores are calculated from respondents' raw subscale scores using the means and standard deviations provided by the instrument's authors. The mean score on each subscale is 50, with a standard deviation of 10. Subscale scores have been normed using a sample of 22,060 university counseling center clients from 52 participating institutions. The internal consistency of each subscale has been established (CSCMH, 2009). Therefore, the CCAPS-62 was selected as the most appropriate instrument for a nonclinical student sample and is assumed to have acceptable psychometric properties in this sample.

Coding. In order to address Hypothesis 2, participants were assigned to one of four groups based on their BSS score and T-scores on the eight subscales of the CCAPS-62. Participants were assigned to the suicidal group if they scored above zero on the BSS and indicated on the BSS that they were having suicidal ideation and/or if they endorsed above the midpoint on the suicidal ideation item of the CCAPS-62. Participants were assigned to the at-risk group if they scored zero on the BSS, endorsed below the midpoint on the suicidal item of the CCAPS-62, and scored above 70 (two standard deviations above the mean) on the depression or substance abuse subscales of the CCAPS-62.

Participants were assigned to the other emotional problems group if they scored zero on the BSS, endorsed below the midpoint on the suicidal item of the CCAPS-62, and scored above 70 on any other subscale of the CCAPS-62. Participants were assigned to the no emotional problems group if they scored zero on the BSS, endorsed below the midpoint on the suicidal item of the CCAPS-62, and did not score above 70 on any subscale of the CCAPS-62.

Procedure. Participants were recruited from upper-level psychology courses. They were informed of dates and times the psychology lab would be available for them to complete the survey packet for this study. Participants were seated in the lab in groups of approximately twenty, in desks spaced one and one half feet apart. After signing in, participants were given a 9”x12” manila envelope containing all study materials. Participants were instructed to seal all study materials in the envelopes they were given and to return the packet to the experimenter as they finished. As participants turned in their materials, they were given a debriefing form containing information about the study and campus mental health services and were thanked for their participation.

Results

Subscale Construction and Reliability. The attitudes subscale was computed by summing responses on items 4, 6 (reverse-scored), and 10. The perceived social norms subscale was computed by summing responses on items 7, 9, and 11. The perceived behavioral control subscale was computed by summing responses on items 5, 12, and 13. The behavioral intentions subscale was computed by summing responses on items 8, 14, and 15.

Participants' summed scores on three subscales of the Theory of Planned Behavior (TpB) questionnaire were used as measures of attitudes, perceived social norms, and perceived behavioral control. The attitudes subscale was internally consistent, Cronbach's alpha = .763. The perceived social norms subscale (Cronbach's alpha = .577) and perceived behavioral control subscale (Cronbach's alpha = .506) were not internally consistent. Dropping individual items from each subscale did not improve reliability, so the scales were retained for conceptual purposes. Because salient beliefs are not necessarily assumed to be correlated with one another, Azjen (2006) states that high internal consistency is not required of belief composites (i.e., sums of scores for the attitudes, perceived social norms, and perceived behavioral control subscales). Participants' summed scores on the final subscale of the questionnaire were used as a measure of behavioral intentions to use campus mental health services. The behavioral intentions subscale was highly internally consistent, Cronbach's alpha = .941.

Descriptive statistics for all four subscales are reported in Table 13. Overall, participants' attitudes toward using campus mental health services were slightly positive. Perceptions that important others would use or approve of participants' use of campus mental health services were neither positive nor negative. Perceptions that participants could use campus mental health services if they wanted to were very positive. Intentions to use campus mental health services were slightly positive.

Table 13

Descriptive Statistics for Theory of Planned Behavior Variables

Variable	Minimum	Maximum	Mean	Standard Deviation
Attitudes	5	21	15.29	3.57
Social Norms	3	21	12.38	3.69
Control	7	21	18.04	2.84
Intentions	2	21	13.72	5.13

Control variables. The majority of participants 63% (n = 90) were able to correctly identify one of the mental health resources on campus. However, 13% (n = 18) wrote the name of an incorrect academic building (e.g., "Gullickson"), the name of an incorrect campus program (e.g., "tutoring"), or a variant of the phrase "I don't know." The remaining 20% (n = 29) left the response area blank. Analyses were run once including all participants and again excluding all participants who failed the manipulation check. Because the results of the analyses were the same regardless of the manipulation check, only the results of the analyses in which all participants were included are reported.

The number of years each participant has attended Marshall were included in the analysis to statistically control for unfamiliarity with campus mental health services. The range of years reported was 0.5 to 9.5 (M = 2.57, SD = 1.46). The number of times participants had used on-campus and off-campus mental health services were included in the analysis to statistically control for past behavior. The range of number of on-campus sessions reported was 0-52 sessions, with a modal response of zero (M = 1, SD = 5.23). The range of number of off-campus sessions reported was 0-52 sessions, with a modal response of zero (M = 1.52, SD = 6.60).

Suicidality and emotional problems. Participants' raw scores on the *Beck Suicidal Ideation Scale* (BSS) were used as a measure of suicidality. The range of scores obtained in this sample was 0-13, with a modal response of zero ($M = 1.01$, $SD = 2.44$). This indicates most students denied suicidality.

Participants' T-scores scores on eight subscales of the *Counseling Center Assessment of Psychological Symptoms* (CCAPS-62) were used as measures of eight areas of emotional distress: depression, generalized anxiety, social anxiety, academic distress, eating concerns, family distress, hostility, and substance abuse. T-scores are computed such that the mean is 50 and one standard deviation is 10. Descriptive statistics for all eight subscales are reported in Table 14.

Table 14

Descriptive Statistics for CCAPS-62 Subscales

Subscale	Minimum	Maximum	Mean	Standard Deviation
Depression	33.23	63.00	41.12	7.57
Generalized Anxiety	48.28	89.01	60.38	8.42
Social Anxiety	48.06	84.93	64.85	8.99
Academic Distress	48.18	81.51	58.63	7.75
Eating Concerns	48.89	86.34	61.11	9.31
Family Distress	48.70	86.34	55.20	6.89
Hostility	48.81	87.47	58.09	9.19
Substance Abuse	49.14	92.79	60.11	10.75

Based on their BSS and CCAPS-62 scores, 21% ($n = 30$) of the sample was assigned to the suicidal group, 19% ($n = 27$) was assigned to the at-risk group, 35% ($n = 50$) was assigned to the other emotional problems group, and 24% ($n = 34$) was assigned to the no emotional problems group.

Assumptions. It was hypothesized that attitudes, perceived social norms, and perceived behavioral control would predict behavioral intentions to use campus mental

health services even when controlling for predictor variables currently found in the literature. Preliminary analyses were conducted to ensure the assumptions of normality, linearity, homoscedasticity, and independence of observations were not violated. As a measure of normality, Q-Q plots and frequency histograms were generated for all continuous independent variables and the dependent variable (see Figures 1-8). Attitudes, perceived social norms, perceived behavioral control, and behavioral intentions were all normally distributed.

Years at Marshall, number of on-campus and off-campus therapy sessions, and BSS score were not normally distributed. The Mahalanobis distance was computed for all continuous independent variables and the dependent variable. The probability of each distance was calculated using a Chi square approximation. Data points for six participants were dropped from the analysis because $D' < .001$. Removing outliers did not achieve normality for years at Marshall, number of on-campus and off-campus therapy sessions and BSS score. Values for these four variables were transformed once using a square root transformation and a second time using a logarithmic transformation. Following the logarithmic transformation, the distributions of all four variables were approximately normal (see Figures 9-20).

As a measure of linearity, scatter plots were generated for all continuous independent variables using the dependent variable as the Y-axis (see Figures 21-27). All independent variables except for number of on-campus and off-campus therapy sessions and BSS score were found to have a linear or approximately linear relationship with behavioral intentions. Number of on-campus therapy sessions, number of off-campus therapy sessions and BSS score were not included in the final analysis.

As a measure of homoscedasticity, a scatter plot was generated for the final analysis' residuals using predicted values as the Y-axis. Variance appeared to be homogenous. As a measure of singularity, collinearity diagnostics were run. Overall, collinearity was within an acceptable range, tolerance >.10, VIF < 10. Attitudes, perceived social norms, and perceived behavioral control were highly correlated, eigenvalue = .01, CI= 27.36. Therefore, the effect size for each variable individually is likely to be underestimated.

Regression analysis. A hierarchical multiple regression analysis was conducted in order to predict behavioral intentions to use campus mental health services. Results of the manipulation check and years at Marshall were entered at Step 1. Gender, sexual orientation, race, and rurality were entered at Step 2. Attitudes, perceived social norms, and perceived behavioral control were entered at Step 3. Correlations between independent and dependent variables are reported in Table 15.

Table 15

Correlations Between Variables

	1	2	3	4	5	6	7	8	9
1 Years at MU									
2 Manipulation	.00								
3 Sex. orientation	.03	-.01							
4 Gender	-.08	.01	.03						
5 Race	-.04	.06	-.06	-.08					
6 Hometown	-.11	.01	.06	.16	.17*				
7 Attitudes	.07	-.03	.07	-.24	.07	-.01			
8 Social norms	-.17**	.09	.07	.15	-.16	.03	-.53		
9 Control	-.12	.09	-.20	.01	.09	-.05	-.34	-.12	
10 Intentions	.18*	.02	-.09	.08	-.02	.04	.73**	.60**	.54**

$^{*}p < .05$, $^{**}p < .01$

Model 1, which contained only the control variables, did not reliably predict variance in behavioral intentions to use campus mental health services, $R^2 = .03$, $F(2, 103) = 1.55$, $p = .218$. Model 2, which contained the demographic covariates, also did not reliably predict behavioral intentions to use campus mental health services, $R^2 = .04$, $F(6, 99) = 0.77$, $p = .598$. Model 3, which contained attitudes, perceived social norms, and perceived behavioral control, was a statistically significant predictor of behavioral intentions to use campus mental health services, $R^2 = .56$, $F(9, 96) = 15.79$, $p < .001$. Model 3 was a statistically significant improvement over Model 2, R^2 *change* = .55, $p < .001$. Hypothesis 1, that the Theory of Planned Behavior predictor variables (attitudes, perceived social norms, and perceived behavioral control) would predict behavioral intentions to use campus mental health services even when controlling for predictor variables currently found in the literature, was supported. Hypothesis 2, that the pattern of predictors of help-seeking currently found in the literature would be replicated, was not supported. Coefficients for independent variables in the regression are reported in Table 16.

Table 16

Coefficients for Independent Variables in Regression

	β	*t*	*p*	ΔR^2
Model 1				
Manipulation check	.01	.08	.940	
Years at Marshall	.17	1.76	.082	.08
Model 2				
Manipulation check	.01	.06	.954	
Years at Marshall	.16	1.65	.102	
Race	-.02	-.17	.862	
Gender	.02	.19	.848	
Sexual orientation	-.11	-1.08	.281	
Hometown	.05	.48	.630	.08
Model 3				
Manipulation check	.10	1.37	.173	
Years at Marshall	.03	.33	.742	
Race	-.02	-.32	.753	
Gender	-.14	-1.77	.081	
Sexual orientation	-.13	-1.76	.080	
Hometown	.06	.85	.400	
Attitudes	.54	5.28	.000	
Social norms	.20	2.01	.048	
Control	.16	1.74	.085	.47*

*$p < .001$

Hypothesis 2 was not supported by the results of the regression analysis. Independent samples t-tests were conducted in order to determine whether female and male participants, White and non-White participants, and heterosexual and gay, lesbian, and bisexual participants differed in attitudes, perceived social norms, or perceived behavioral control. Of all of the t-test comparisons, effects were found only for gender and attitudes and gender and perceived behavioral control. Female participants had more positive attitudes toward help-seeking than male participants, $t = -2.39$. $p = .018$. Females participants had higher perceived behavioral control than male participants, $t = -1.94$, $p = .005$.

Hypothesis 3 predicted that the help negation effect would be replicated. A univariate analysis of variance was conducted in order to determine whether participants who were suicidal, participants at risk of suicidality, participants with emotional problems other than suicidality, and participants who reported no emotional problems differed in strength of intention to use campus mental health services. Levene's test was conducted to ensure the assumption of homogeneity of variance was not violated, p = .138. The omnibus test did not reveal a main effect for group, $F(3, 131) = 0.42$, $p = .740$. Hypothesis 3 was not supported by the results of the ANOVA. Descriptive statistics for all four groups are reported in Table 17.

Table 17

Descriptive Statistics for Behavioral Intentions by Disorder Group

Subscale	Minimum	Maximum	Mean	Standard Deviation
Suicidal	3	21	14.27	5.53
At Risk	3	20	12.74	4.49
Emotional Problem	4	21	13.74	4.80
No Problem	3	21	13.82	5.91

Discussion

As hypothesized, attitudes, perceived social norms, and perceived behavioral control predicted behavioral intentions to use campus mental health services. These three variables accounted for a greater proportion of the variance in intentions than all other variables. Attitudes toward using campus mental health services was the best predictor of intentions to use campus mental health services.

It should be noted that a large number of participants did not correctly identify one or both campus mental health services, which was not found to be related to intentions to use campus mental health services. Excluding participants who did not

accurately list one or both campus mental health services did not affect the results of the analysis. This shows that participants who were unfamiliar with campus mental health services were not biased against using them; however, it also shows that participants had formed beliefs about campus mental health services in the absence of factual information about or personal experience with campus mental health services.

The length of time a participant had attended the university did not account for a significant proportion of variance. Using Cohen's (1992) definition of small, medium, and large effect sizes, there was a small negative correlation between years at Marshall and perceived social norms such that the longer a participant had attended the university, the weaker their belief that others would support their use of campus mental health services.

Contrary to findings from other studies (e.g., Fiske et al., 2005; Goldston et al., 2008; Jackson et al., 2007; Sen, 2004; Yakushko et al., 2008; Yorgason et al., 2008), gender, race and rurality did not account for a significant proportion of variance in intentions to use campus mental health services. There was a difference between female and male participants in attitudes toward campus mental health services and perceived behavioral control over using campus mental health services. This outcome suggests that, although male and female participants did not differ in intentions to use campus mental health services, they did differ in their beliefs about them. One possible explanation for the lack of gender differences in intentions to use campus mental health services is that participants were recruited from upper level psychology courses. Male participants likely had superior mental health literacy compared to men in the general population.

It is likely that this study's power to detect racial differences was lowered by the small number of non-White relative to White participants in the sample. The racial composition of the sample was representative of the university's population.

This study's power to detect differences based on rurality may have been lowered by the measure of rurality used. The measure of rurality used in this study was based on definitions from the US Census Bureau (2000), which classifies areas as urbanized areas, urban clusters, or rural areas based on population density. This classification allows for huge variations in total population, development, and distance from urban centers within each category. The university draws primarily from central Appalachia; participants from this geographic region likely share cultural beliefs with others from the region, regardless of population classification.

The hypothesis that suicidal participants would express weaker intentions to seek help than other participants was not supported. The four emotional problems groups did not significantly differ from one another in strength of intentions. The group that expressed the strongest intentions to use campus mental health services was the suicidal group. The group that expressed the weakest intentions to use campus mental health services was the at-risk group. One possible explanation for the lack of help negation in this study is that, although the absolute number of participants experiencing suicidal ideation was relatively high, the intensity of their suicidality was low. Another possibility is that participants may have had relatively low levels of helplessness, which mediates the relationship between suicidal ideation and help negation. It is also possible that group differences were minimized due to all participants being upper level

psychology students, who presumably hold beliefs supportive of mental health service utilization.

Implications. Findings from this research support the use of a TpB approach to campus suicide prevention. Attitudes toward campus mental health services were the best predictor of intentions to use campus mental health services. In general, students had positive attitudes toward using campus mental health services. In order to strengthen students' intentions to use campus mental health service, thereby increasing actual campus mental health service utilization, it is necessary to address students' negative attitudes toward campus mental health services.

Follow-up studies should examine the bases of these attitudes. Are negative attitudes based on students' personal experience or prejudice against graduate student clinicians? The former would suggest that campus mental health services should make an effort to increase the professionalism of staff members and find ways to endure students' privacy when accessing services. The latter would suggest giving students accurate information about campus mental health services may improve their attitudes.

One component of the university's campus mental health services' outreach programming is staff presentations about the Counseling Center and Psychology Clinic given during freshman orientation. These presentations are a good vehicle for addressing negative attitudes toward campus mental health services. For example, some students perceive campus mental health service staff to be unprofessional. A way of addressing this attitude might be to provide students with more information about how graduate student staff members are supervised by licensed professionals. Some students believe using campus mental health services will compromise their privacy. For example, they

believe classmates may see them walking into the Counseling Center or that they might run into Psychology Clinic staff at a football game. One way of addressing this attitude is to emphasize that both the Counseling Center and Psychology Clinic have private waiting rooms and that all staff must abide by HIPAA regulations during presentations. Future research should examine the basis of students' negative attitudes toward campus mental health services. Whether these attitudes are based on personal experience, peers' experiences, or prejudice toward campus mental health services will determine whether corrective information or systemic change is needed.

Perceived social norms was the second best predictor of intentions to use campus mental health services. This outcome was driven by negative ratings of an item asking whether other Marshall students are likely to use campus mental health services. Students did not consider classmates or Marshall students in general important reference groups in their decision to seek help. They did express concern that using campus mental health services would not be private, indicating they experienced some fear or discomfort at the idea of peers knowing they were seeking help for an emotional problem.

Follow-up studies should examine students' attitudes toward others' help seeking. If the attitudes are generally positive, this information should be communicated to students through a comprehensive social marketing campaign including posters, special talks, and campus media.

Perceived behavioral control was a marginally significant predictor of intentions to use campus mental health services. Overall, perceived behavioral control was rated very positively, suggesting students believe they would be able to use campus mental health services if they wanted to. In contrast, some students believed using campus

mental health services would be too expensive. Some students believed the services were not conveniently located or did not know where they would go to access the services. Students overestimated the ease with which they could access campus mental health services given their misunderstanding of information relevant to accessing the services. This overestimation may have caused a ceiling effect which reduced the predictive power of the variable. These beliefs are evidence of a communication breakdown between campus mental health services and students. At the university, psychotherapy and counseling are free to students and are located in academic buildings on campus. This information is given to students at orientation, as part of presentations in freshman orientation classes, in dorm presentations, and in most introductory psychology classes. It is also prominently displayed on the Psychology Clinic website. It is possible this information becomes less salient to students after their first year. A large number of upper level psychology students in Study 2 could not name even one campus mental health resource. This suggests campus mental health services should focus outreach activities on upperclassmen as well as freshmen.

One way in which the Psychology Clinic attempts to increase the accessibility and salience of accurate information about campus mental health services is advertising informally on the social networking website Facebook.com. That students generally have positive attitudes toward the Internet and believe they can access information on the Internet easily makes it a powerful medium for communicating about campus mental health services. The only concerns students had about using the Internet to get mental health-related information is that they could not be sure the information they accessed was accurate and that they might become overwhelmed by information. By referring

students to reputable, developmentally appropriate websites through their web pages, Facebook pages, in-person presentations, and/or written advertising materials, campus mental health services can assist students in accessing accurate information. Examples of such sites are the Suicide Prevention Resource Center's college student page (www.sprc.org/featured_resources/customized/ college_student.asp), Active Minds, a mental health awareness campaign page (http://www.activemindsoncampus.org), and Campus Blues, an informative self-help website geared toward college students (http://www.campusblues.com/).

Assisting students in accessing accurate information is important because increasing mental health literacy will likely increase campus mental health service utilization. Students believed they would be more likely to use campus mental health services if they realized they had a problem. Of the 143 students who participated in study 2, 30 had at least some suicidal ideation, 27 scored over two standard deviations above the mean for depression or substance abuse, and 50 scored over two standard deviations above the mean for at least one other emotional problem. Only 27 students had received any kind of mental health treatment within the past year. Clearly, students use different criteria for determining whether they have a problem than campus mental health centers do.

Learning about symptoms of common psychological disorders and the benefits of treatment will help suicidal students and those with other emotional problems recognize they have a treatable problem. This idea is consistent with the work of Kessler, Brown, and Browman (1981), who argue that help-seeking is a three stage process beginning with the recognition that one's personal experience of distress is an emotional problem,

continuing with the determination that outside help is needed, and ending with making contact with a formal source of help. This rationale is the basis for for-profit screening programs such as Screening for Mental Health (www.mentalhealthscreening.org). It is also the basis of the free online screening program ULifeline (www.ulifeline.org). One way for campus mental health services to encourage students to examine their symptoms and recognize they have an emotional problem is to become a member school of ULifeline. The program tracks data of students completing screens and refers students to campus-specific resources.

Findings from the current project support a gatekeeper approach to campus suicide prevention. Gatekeeper training, such as QPR (Question Persuade Refer), provides non-clinical helpers with information about symptoms of suicidality and other emotional problems as well as available treatment for suicidality and other emotional problems (Quinnett, 1995). It also teaches helpers skills for persuading others to get help. Gatekeeper training has been shown to be effective in increasing mental health literacy and improving helpers' attitudes toward offering help to suicidal individuals (Cross, Mathieu, Cerel, & Knox, 2007; Mathieu, Cross, Batres, Flora, & Knox, 2008; Wyman et al., 2008). In addition to improving attitudes toward helping others, gatekeeper training has a positive influence on perceived social norms about and perceived behavioral control over helping others (Dumesnil & Verger, 2009; Pearce, Rickwood, & Beaton, 2003).

Training students in natural helping roles, such as residence advisors, to be gatekeepers should increase campus mental health service utilization by (1) influencing helpers' attitudes toward help-seeking and giving them the skills to influence other

students' attitudes toward help-seeking, (2) communicating a norm of help-seeking from the university level and teaching helpers to support other students' help-seeking behavior, and (3) providing helpers and, through helpers' intervention, other students with information about accessing campus mental health services. Having students in gatekeeper roles is important, as young people are more likely to turn to a peer for help or accept a peer's help than to seek help from formal sources (Deane et al., 2001). Gatekeeper training is necessary because young people are hesitant to help others if they hold stigmatizing beliefs about suicidal individuals (Cigularov et al., 2008). Future research should examine whether successful gatekeeper interventions change attitudes, perceived social norms, and perceived behavioral control, thereby strengthening students' intentions to use campus mental health services.

Limitations. Past help-seeking behavior was dropped from the analysis because, even after transforming the data, it did not meet assumptions of the analysis. Past behavior is generally good predictor of future behavior (Armitage & Conner, 2001). Being able to include past behavior may have increased the proportion of variance accounted for by the model. This limitation should be addressed in follow-up studies by employing a recruitment strategy to include more individuals who have sought help in the last year. Alternatively, experimenters may consider removing the modifier "in the last year" from the measures of past help-seeking to include participants who have received help in the past.

One limitation of this research not already addressed is that several groups of interest (students from racial minority groups, gay, lesbian, and bisexual students, and suicidal students) were underrepresented in the samples studied. Follow-up studies

should use a more aggressive recruitment strategy to target these groups. However, care should be taken to prevent oversampling individuals biased toward seeking help; for example, recruiting suicidal students from the university counseling center.

Another limitation related to the sample is that all participants were recruited from upper level psychology courses. These students may not necessarily be representative of the university's student body. For example, they likely differ from other students in mental health literacy and beliefs about seeking help for emotional problems. Follow-up studies should include participants recruited from other disciplines.

Although the measures of suicidality and emotional problems used in Study 2 were selected because of their adequate psychometric properties in other samples, they appeared to be highly pathologizing in this sample. Only one quarter of students did not have clinically significant levels of distress in at least one domain of the CCAPS-62. The criterion of two standard deviations above the mean was selected to be very conservative, especially considering the normative sample of the instrument was students presenting for treatment.

The BSS identified one fifth of students in the sample as experiencing suicidal ideation. This estimate is double prior estimates of suicidal ideation at the university (Ellis & Trumpower, 2008). The majority of students in the suicidal group reported relatively low levels of suicidal ideation. It is unclear whether transitory suicidal thoughts meaningfully distinguish members of this group from other students.

Another limitation of this research is that prospective help-seeking behavior was not measured in Study 2. Because actual use of campus mental health services would be contingent upon participants experiencing a crisis, recognizing their need for help, and

having actual behavioral control over help-seeking, it would have been prohibitively difficult to achieve adequate power. Tracking participant use of campus mental health services would have also made it impossible to ensure participants' anonymity. Because behavioral intentions and actual behavior have been found to be correlated at r =.47 across 48 TpB studies, researchers have justified the use of behavioral intentions as an outcome measure (Armitage & Connor, 2001). However, follow-up studies should examine the relationship between TpB predictor variables and actual help-seeking behavior, perhaps using an analog design.

Future Directions. One suggestion for future inquiry not already addressed is to examine the role of actual behavioral control in help-seeking for suicidality and other emotional problems. For example, many students said that not having enough time to go to therapy made it less likely that they would use campus mental health services. Their actual behavioral control over help-seeking with regard to time might be assessed by asking students how many hours they are not in class or working during an average week. This information would reveal whether pragmatic concerns or modal control beliefs should be the focus of intervention.

Another suggestion is to compare students' intentions to perform a variety of help-seeking behaviors. Based on the current research, it can be hypothesized that intentions to perform other help-seeking behaviors can be predicted by TpB. However, it is not known which help-seeking behaviors students prefer and what factors may predict their preference. For example, students may prefer to use the Internet to research a sexual problem; whereas, they may prefer to ask a family member about a psychological disorder known to run in the family. This information would assist campus mental health

services in focusing outreach programming on help-seeking behaviors students are likely to perform. Using the previous examples, information about sexual health may be put on one or both campus mental health services' websites, whereas, parents may be sent an informational packet about common emotional problems experienced by college students.

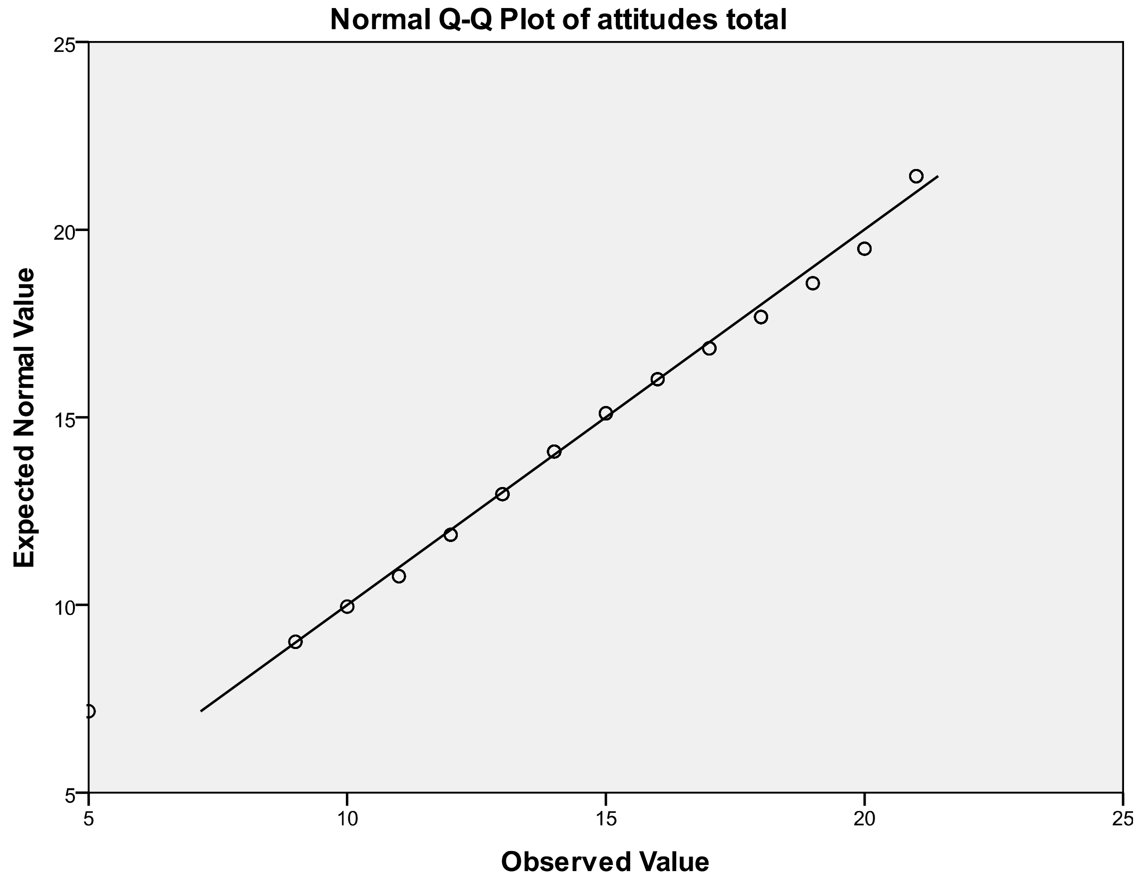
Future research should also focus on processes taking place before the decision to seek help is weighed. Students expressed their intentions to use campus mental health services *if* they experienced an emotional problem. Given the high emotional problem to help-seeking ratio observed in Study 2, it seems students may not be particularly good at determining whether they are experiencing an emotional problem. Kessler, Brown, and Browman's (1981) three-stage model of help-seeking may have utility for campus suicide prevention. Another public health model well suited for the task is Prochaska and DiClemente's (1984) transtheoretical model (TTM) which describes individuals as moving through several stages of readiness for change. A student who does not think she has an emotional problem would be in the "precontemplative stage" (Prochaska & DiClemente, 1984). The advantage of this model is that many strategies have been developed for encouraging individuals to move from one stage to another stage closer to action, both at the individual level and at the group level (Miller & Rollnick, 1991; Prochaska, DiClemente, & Norcross, 1992).

It was beyond the scope of the current project to examine the role of cognitive predictors of suicidality (such as hopelessness and helplessness) in seeking help. Future research should examine the relationship between these factors and cognitive antecedents of help-seeking behavior.

Conclusion

In conclusion, the current project examined college students' attitudes toward, perceived social norms about, and perceived behavioral control over a number of help-seeking behaviors. The Theory of Planned Behavior predicted students' intentions to use campus mental health services from their attitudes toward, perceived social norms about, and perceived behavioral control over using campus mental health services. Students' demographic characteristics were not related to their intentions to use campus mental health services. The presence or absence of suicidality and other emotional problems was not related to students' intentions to use campus mental health services. That TpB was a better predictor of intentions to seek help than factors currently in the literature demonstrates its utility in designing and evaluating campus suicide prevention programs.

Campus suicide is a national public health problem. In acknowledgment of this problem, universities have endeavored to provide accessible mental health services to address the growing mental health needs of their students. The case of Seung-Hui Cho and the 2007 Virginia Tech tragedy illustrates the importance of engaging distressed students with appropriate mental health services. Suicide can be prevented, but only those students who avail themselves of mental health services will obtain the benefits of treatment. By focusing their suicide prevention efforts on increasing utilization of mental health services already offered on campus, universities aspire to offer help and hope to more young lives.



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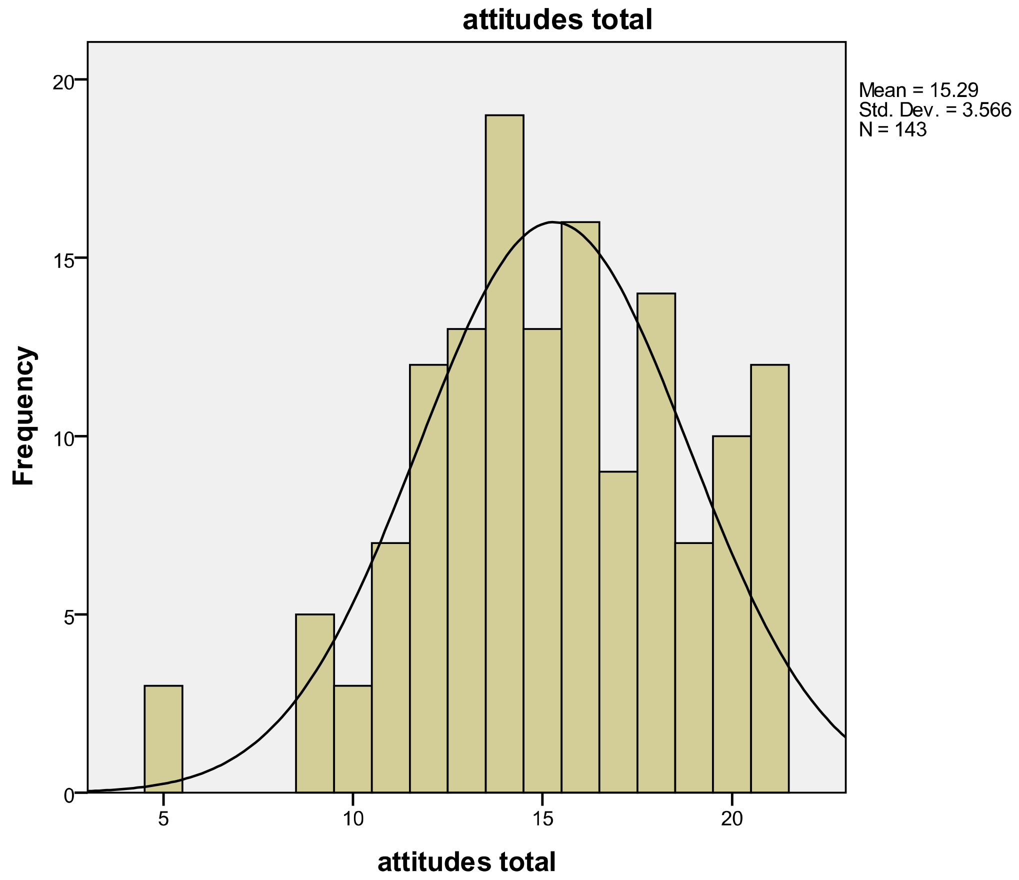

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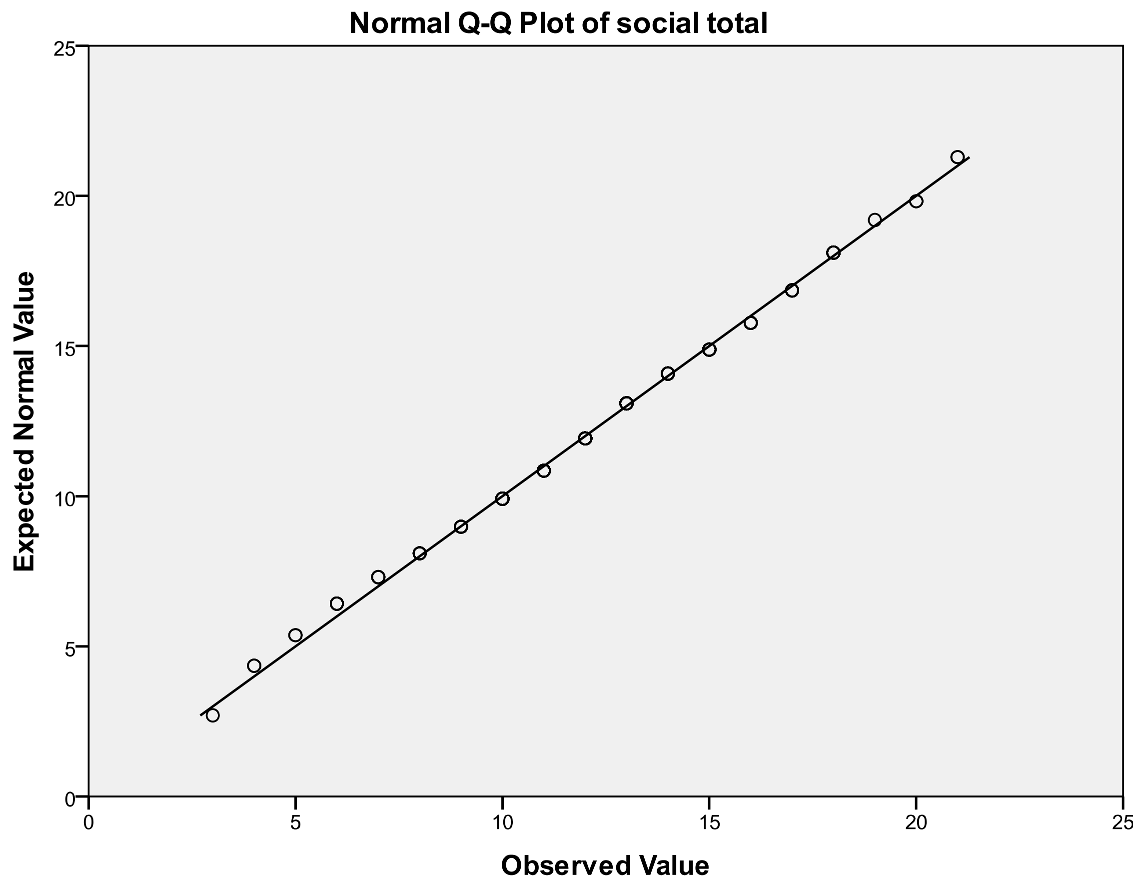

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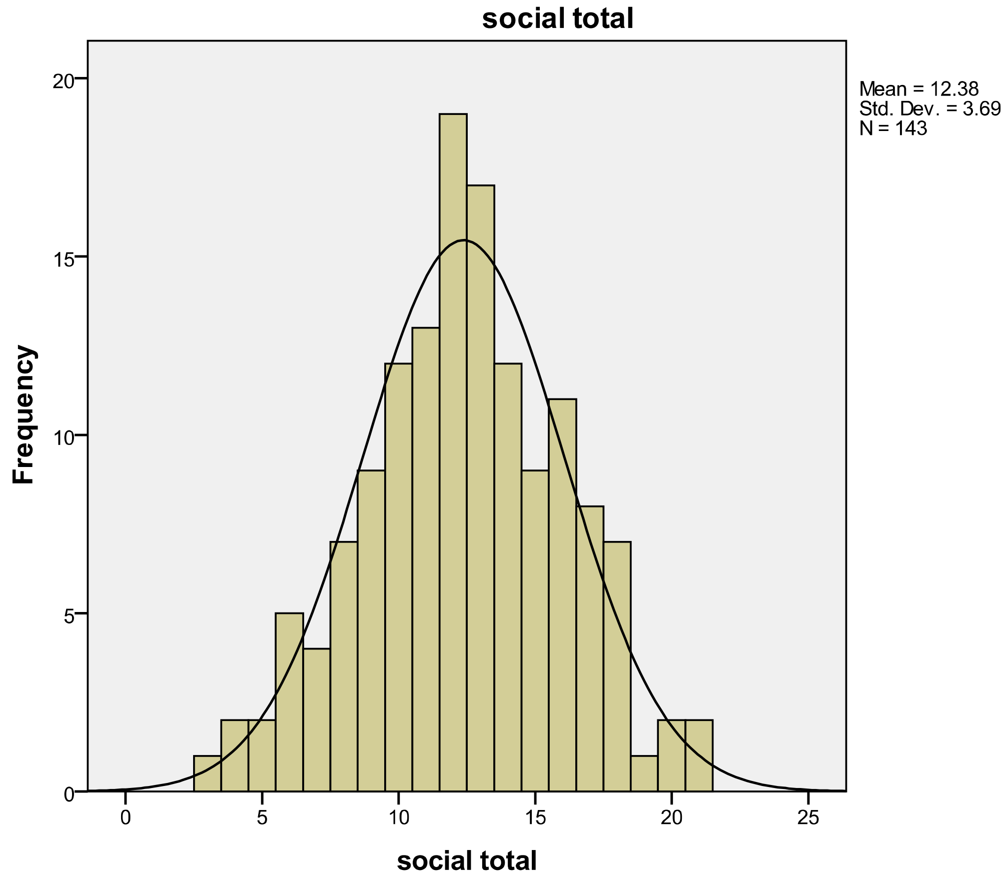

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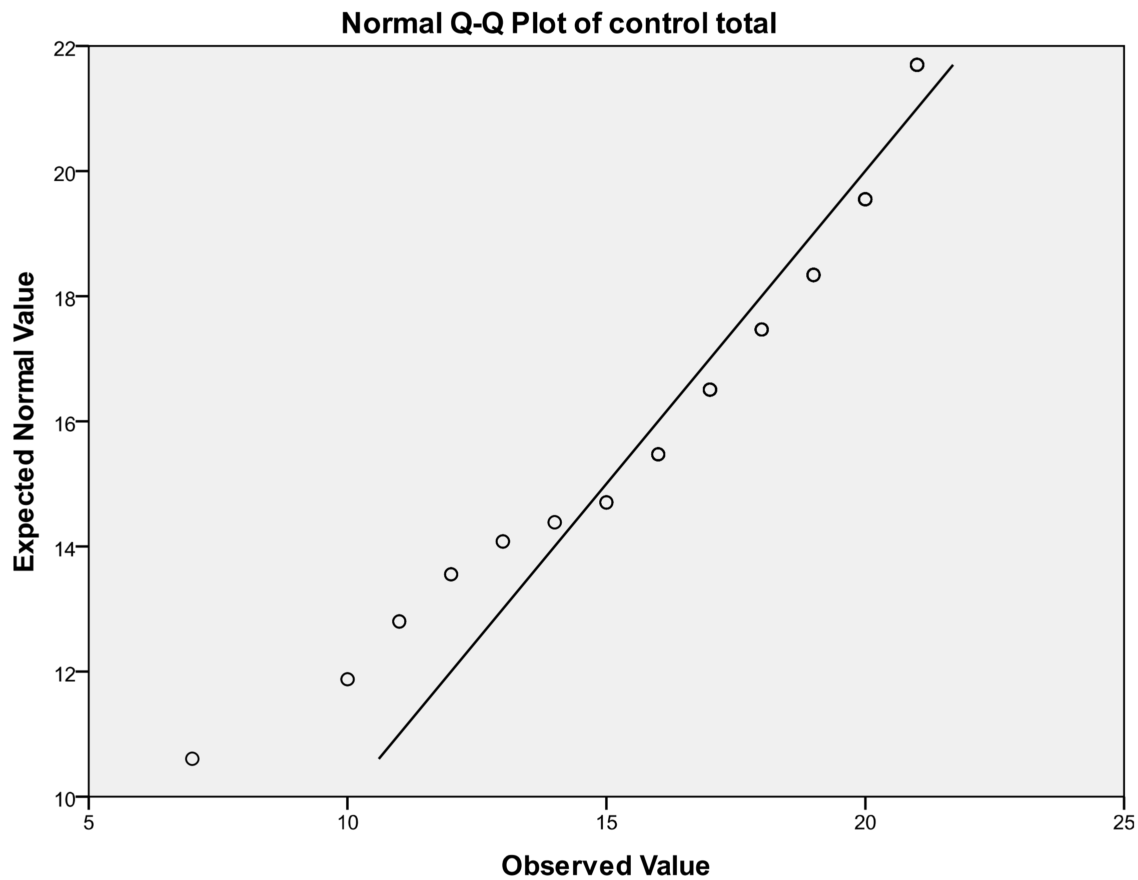

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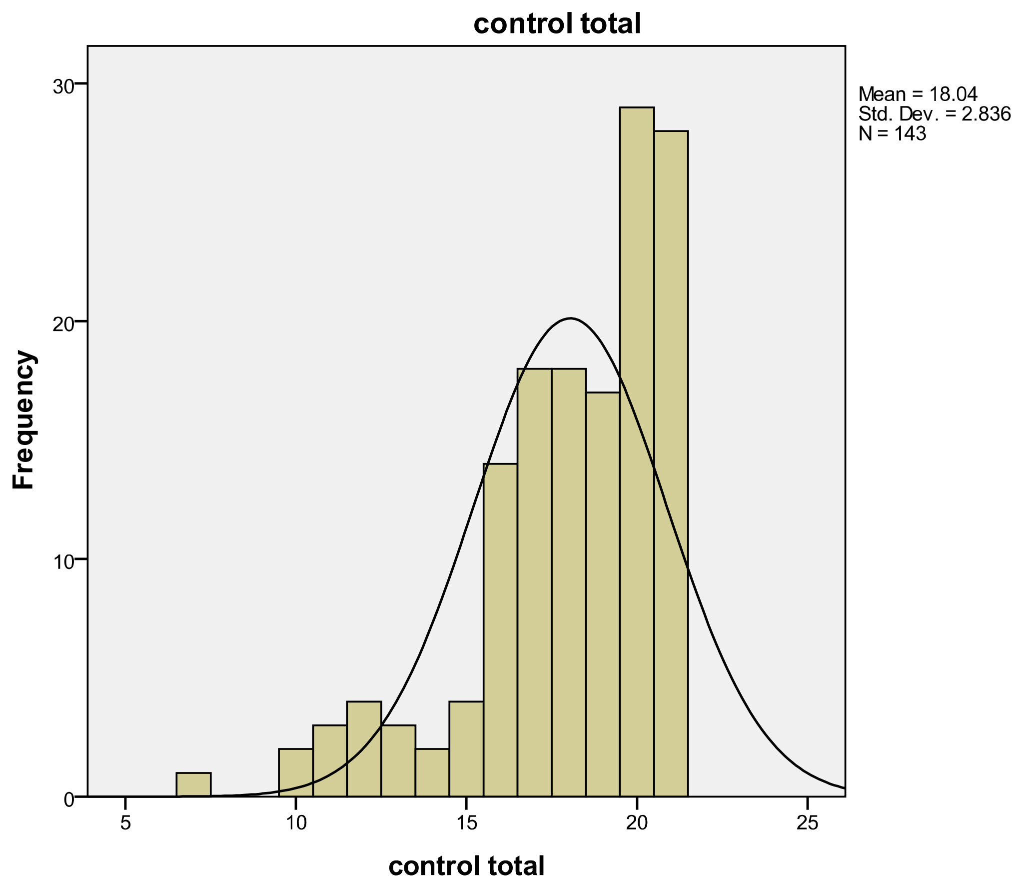

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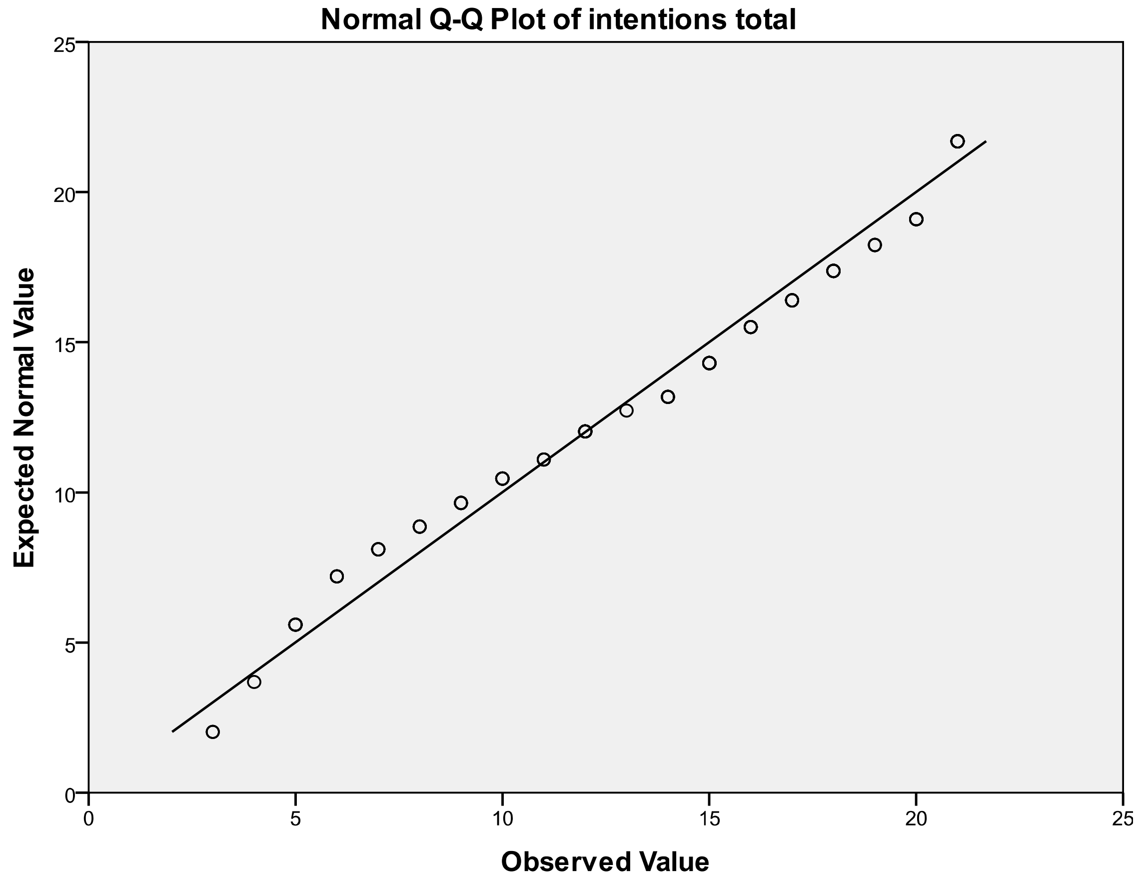

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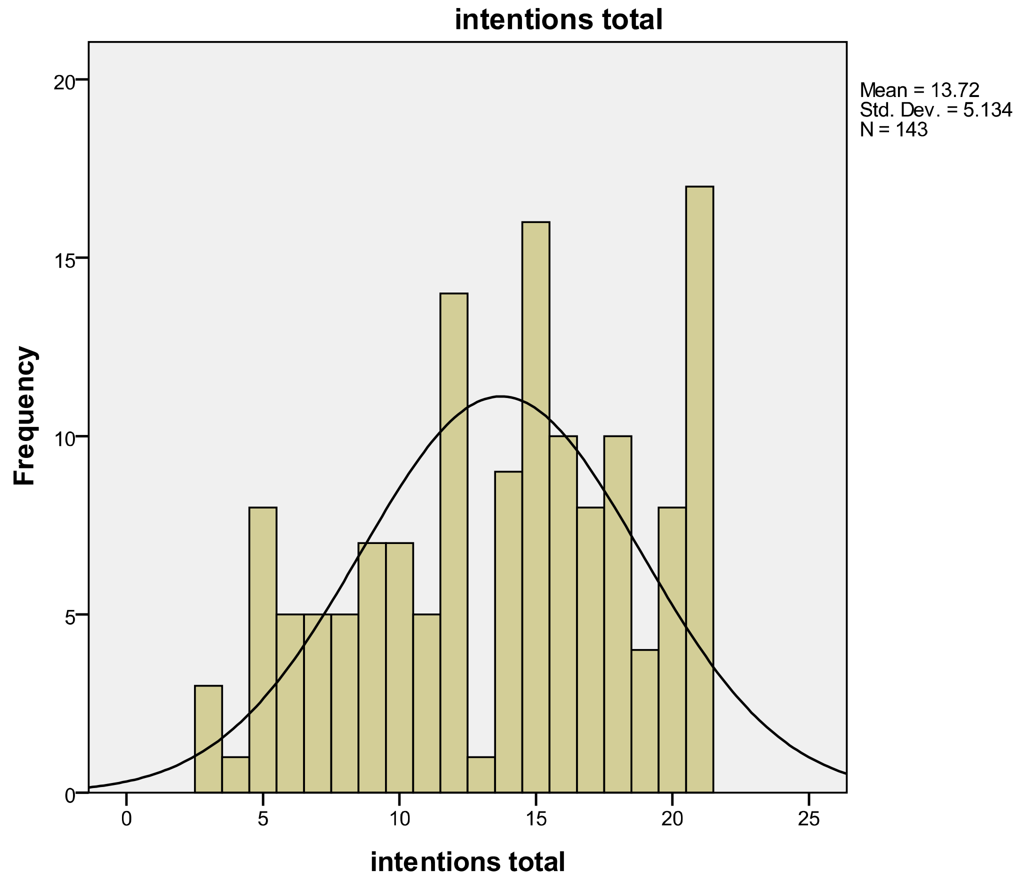

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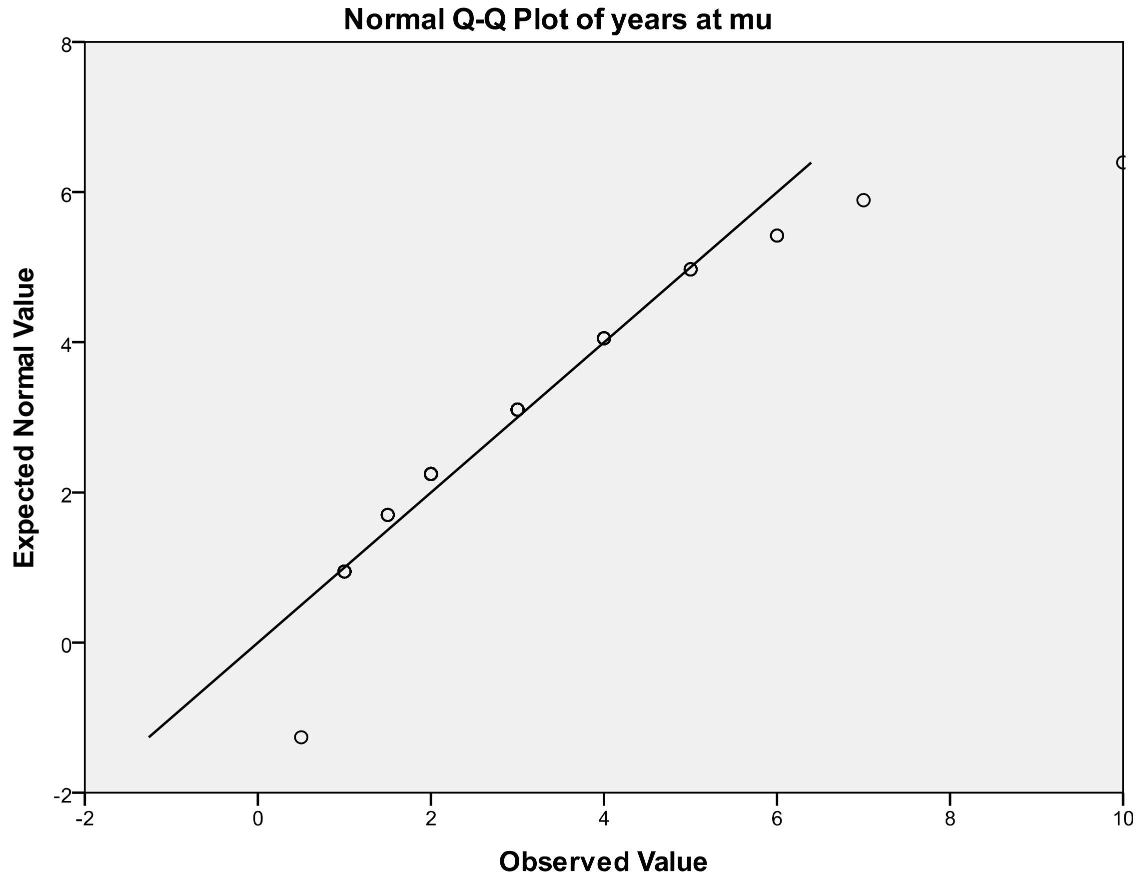

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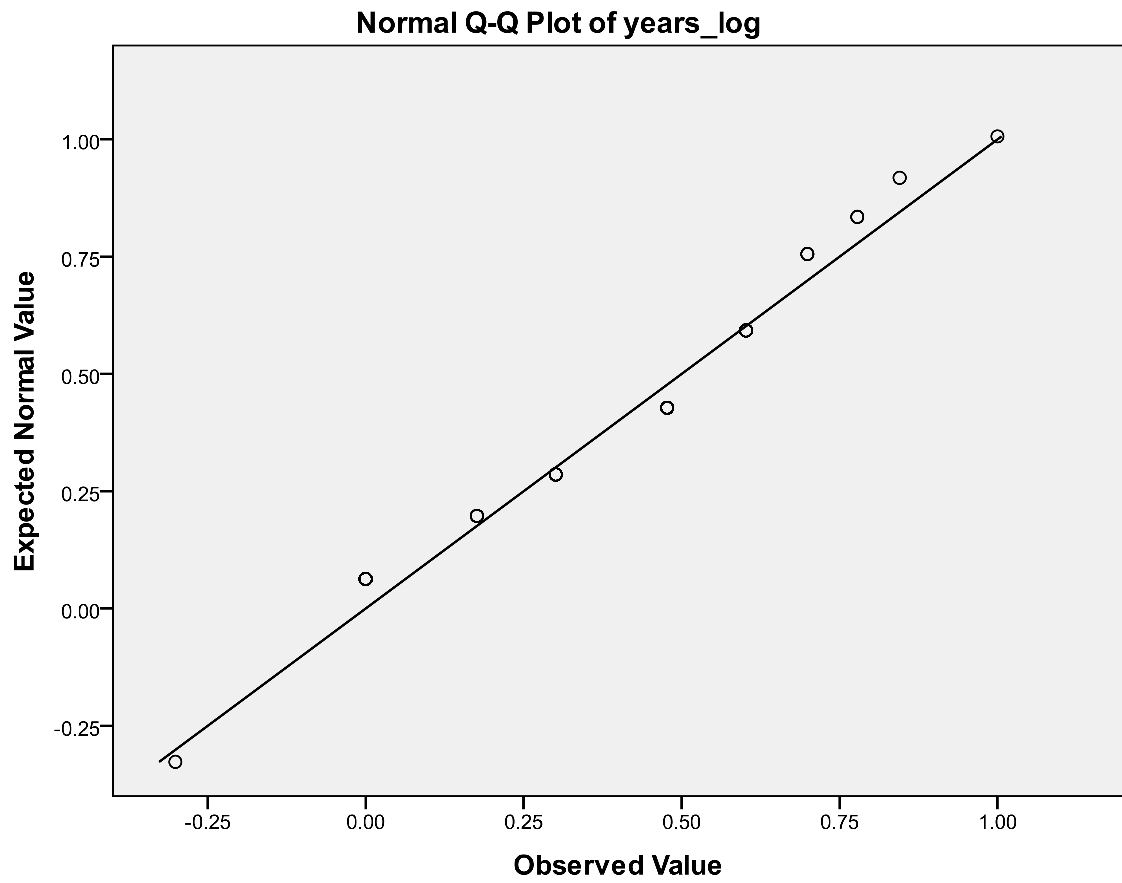

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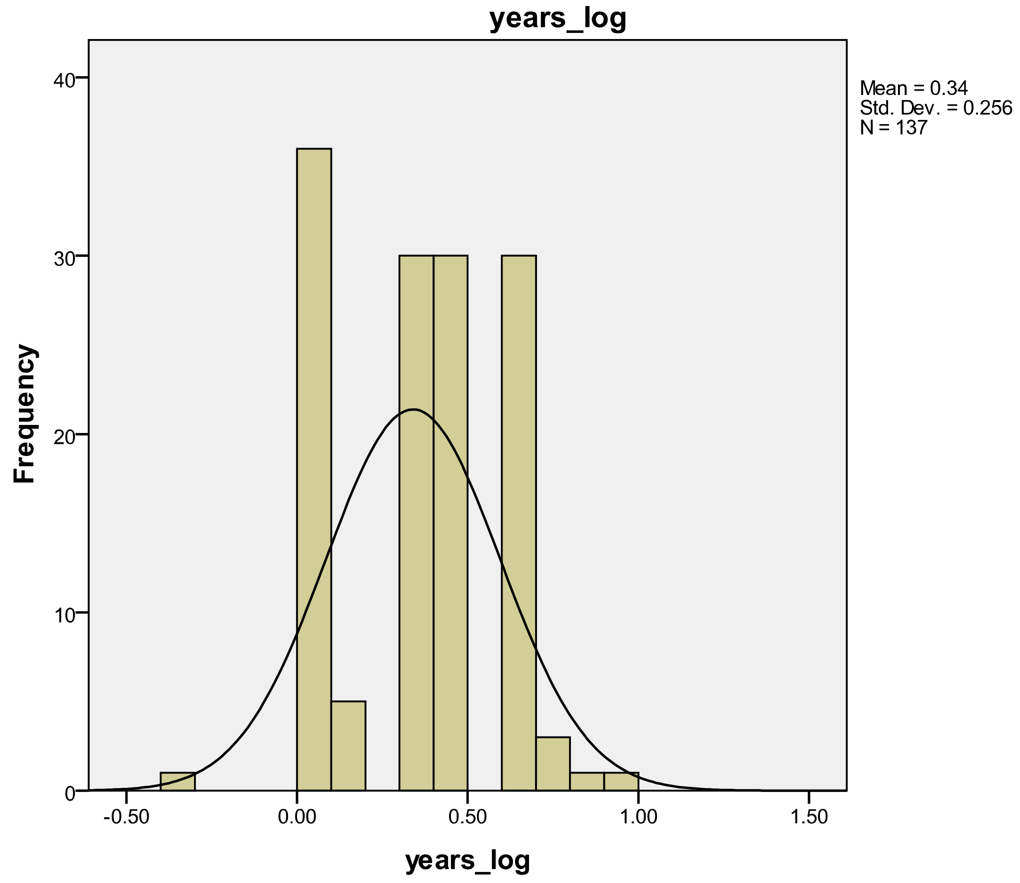

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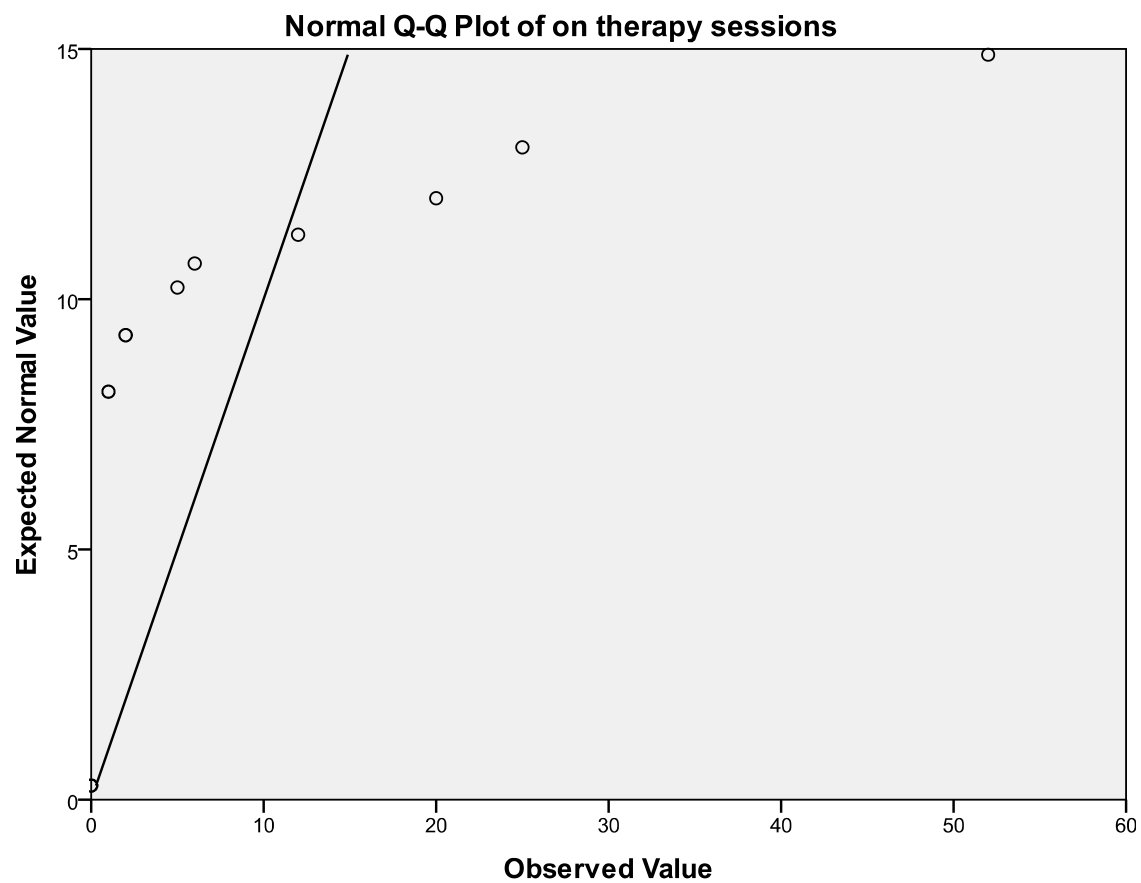

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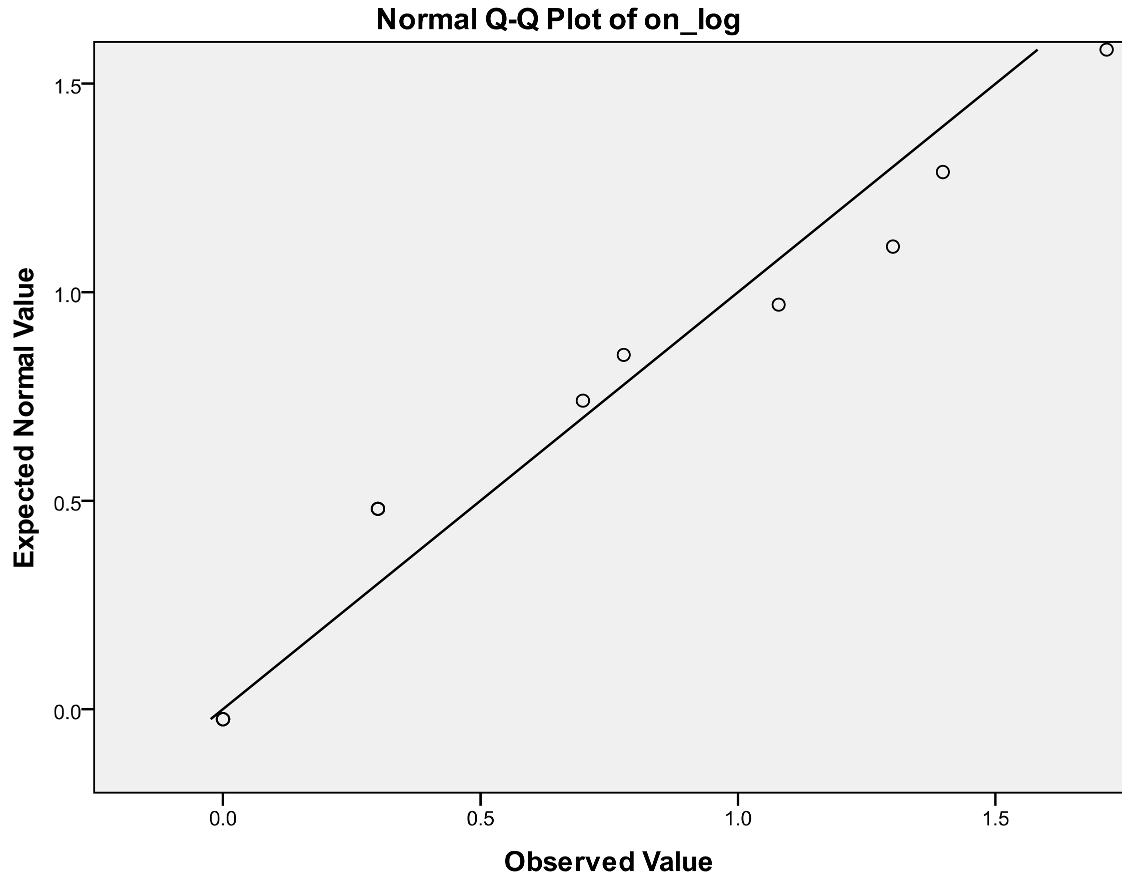

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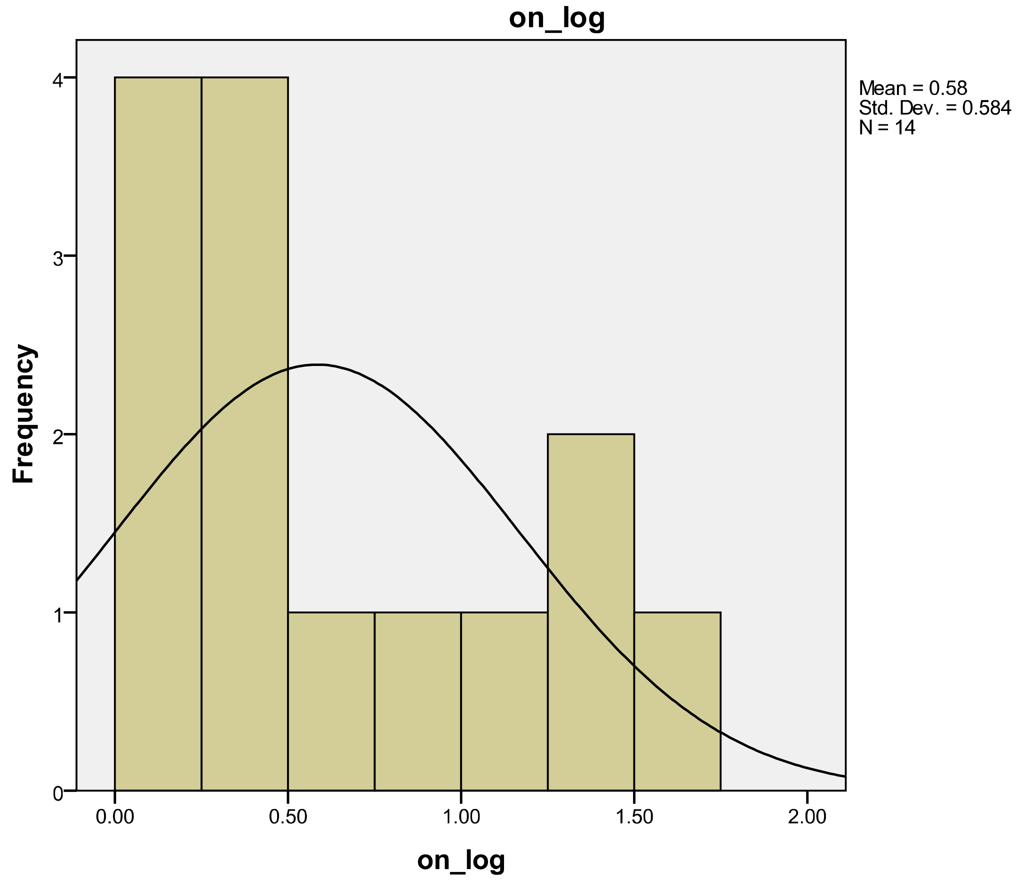

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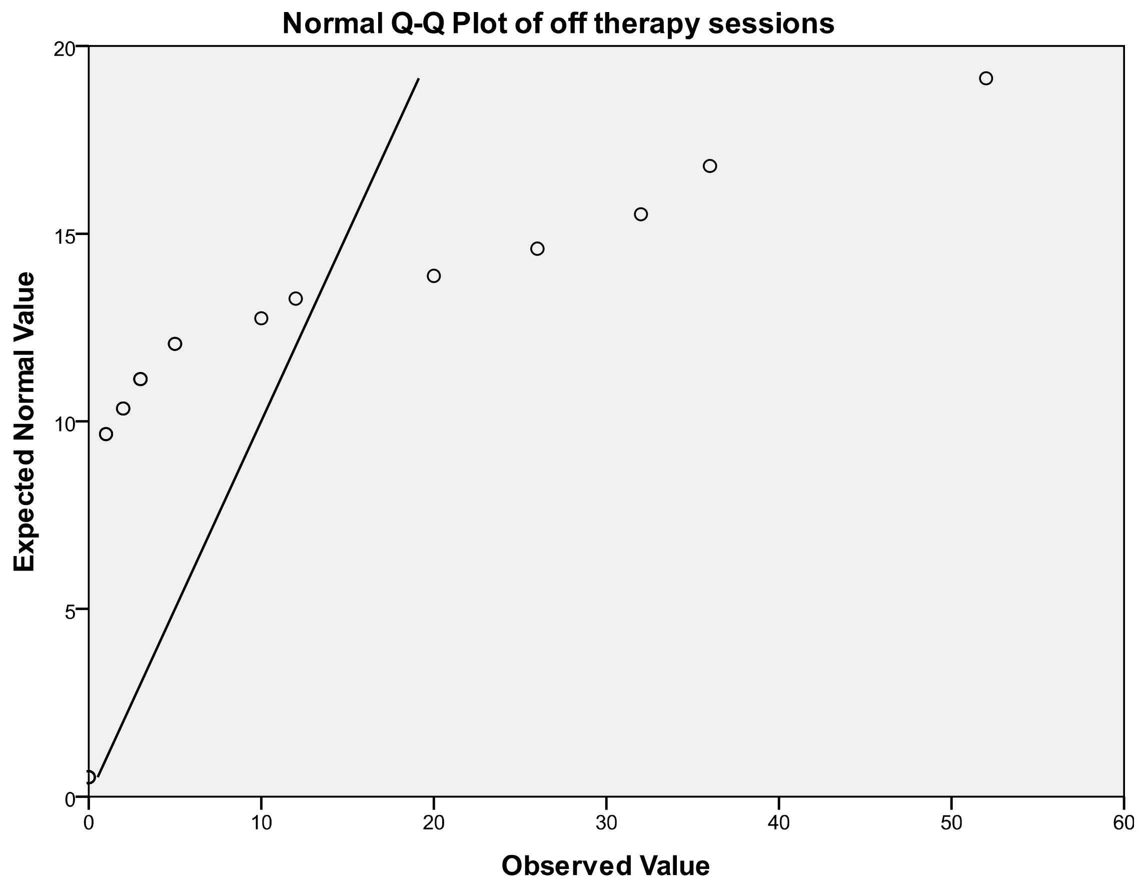

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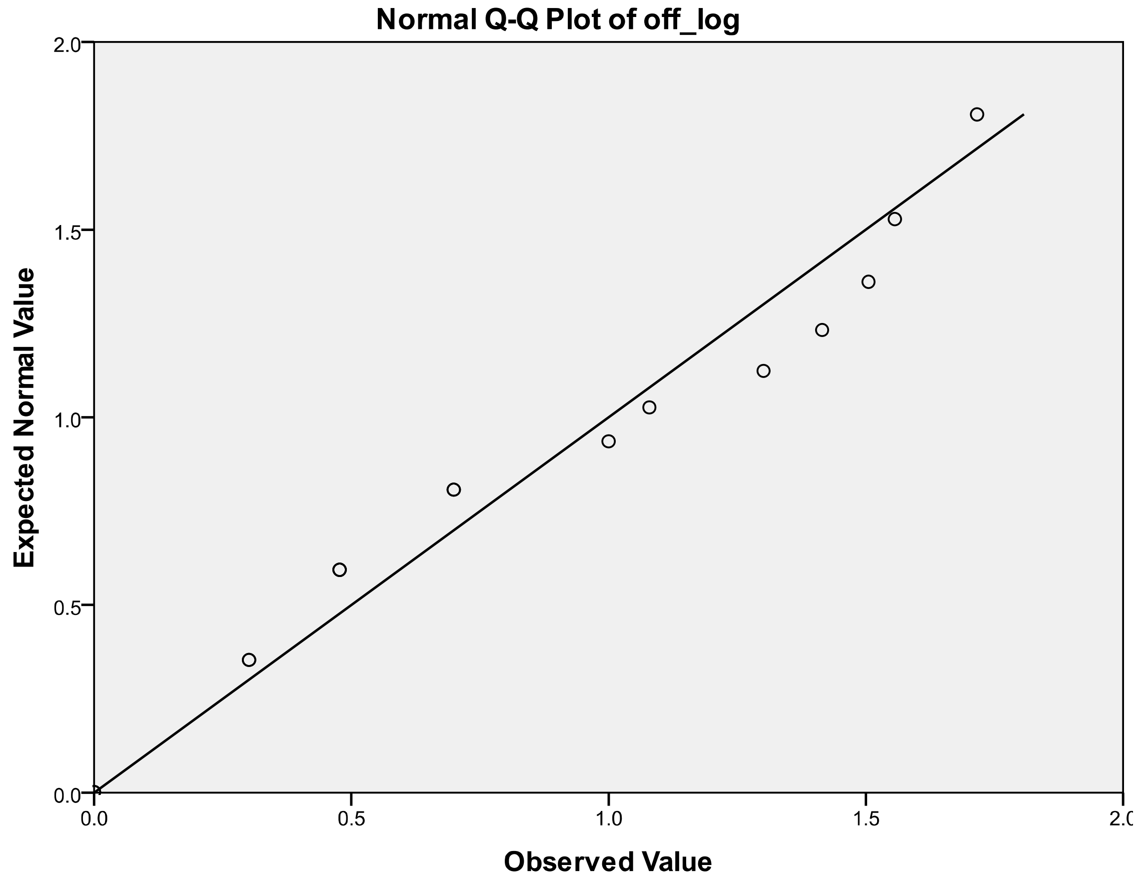

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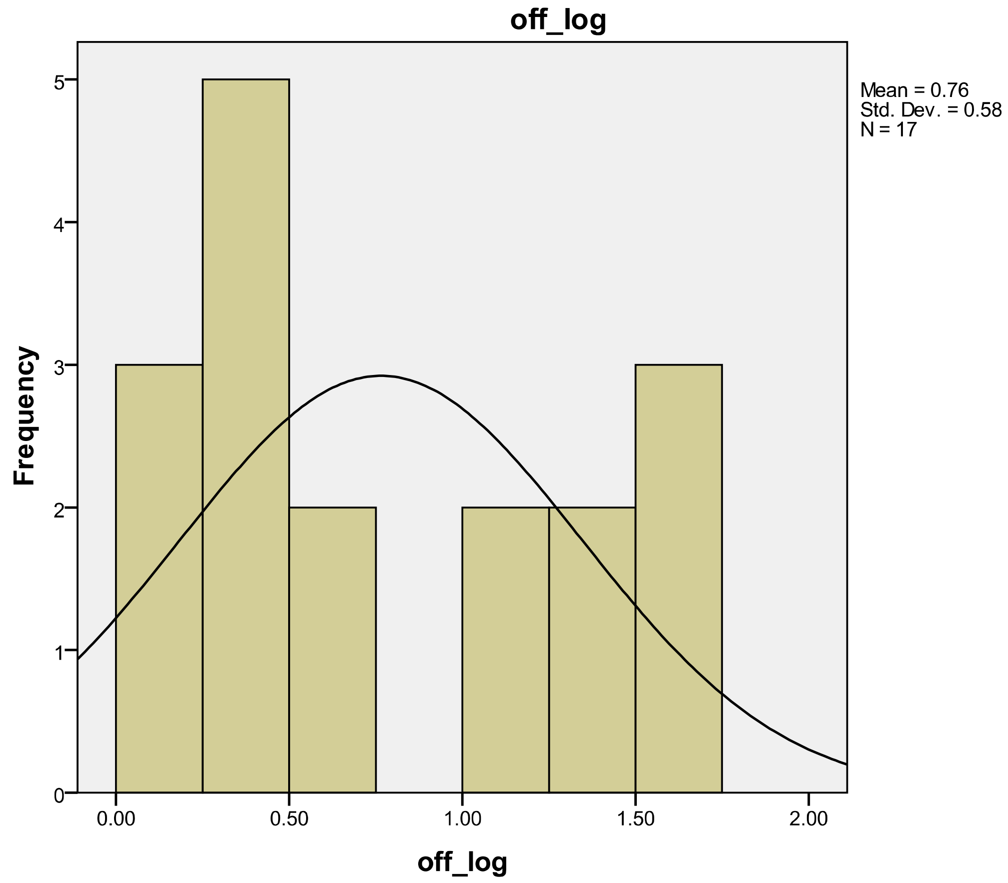

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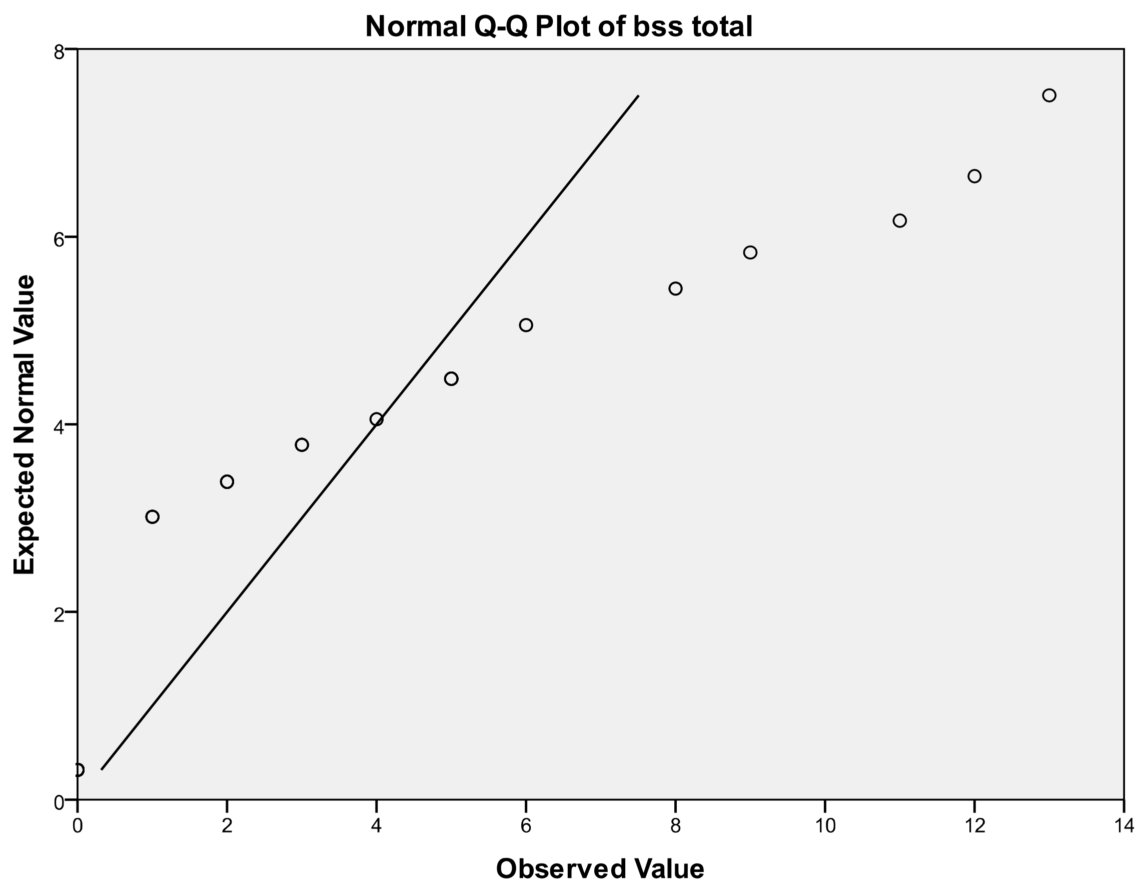

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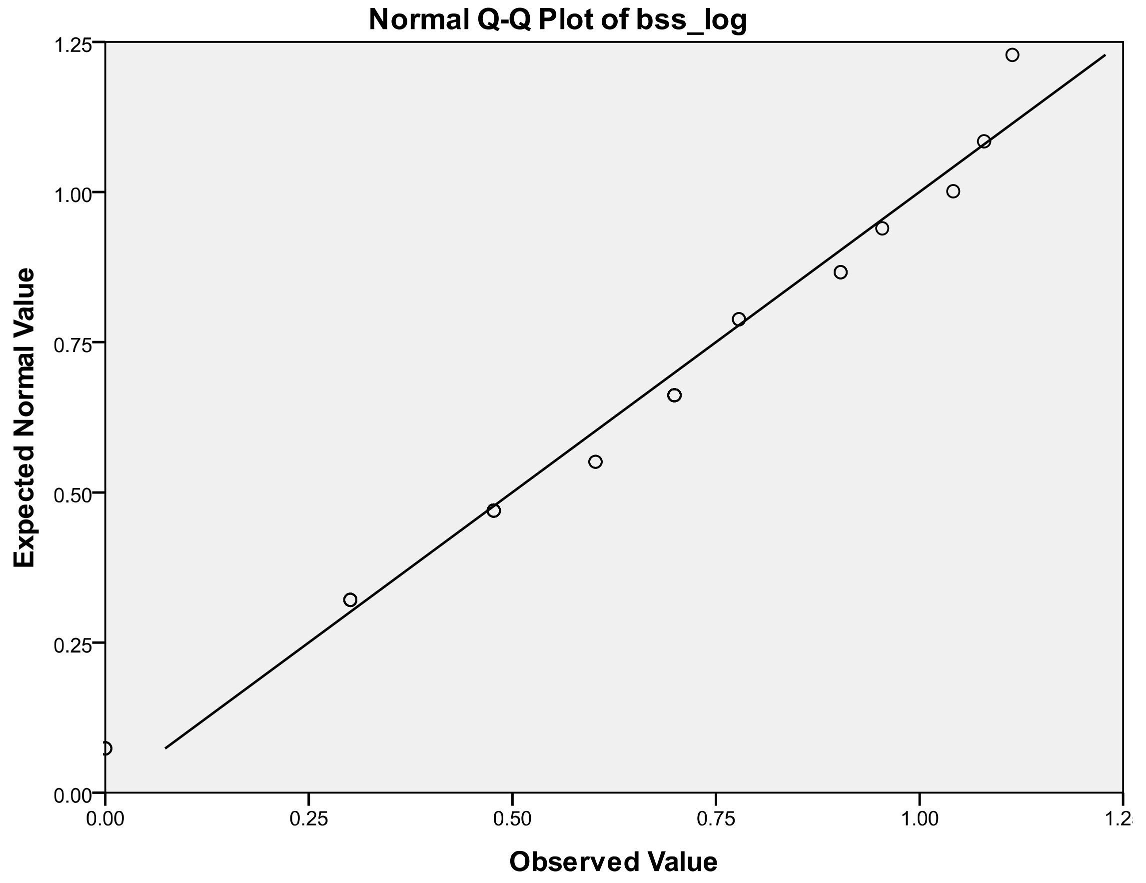

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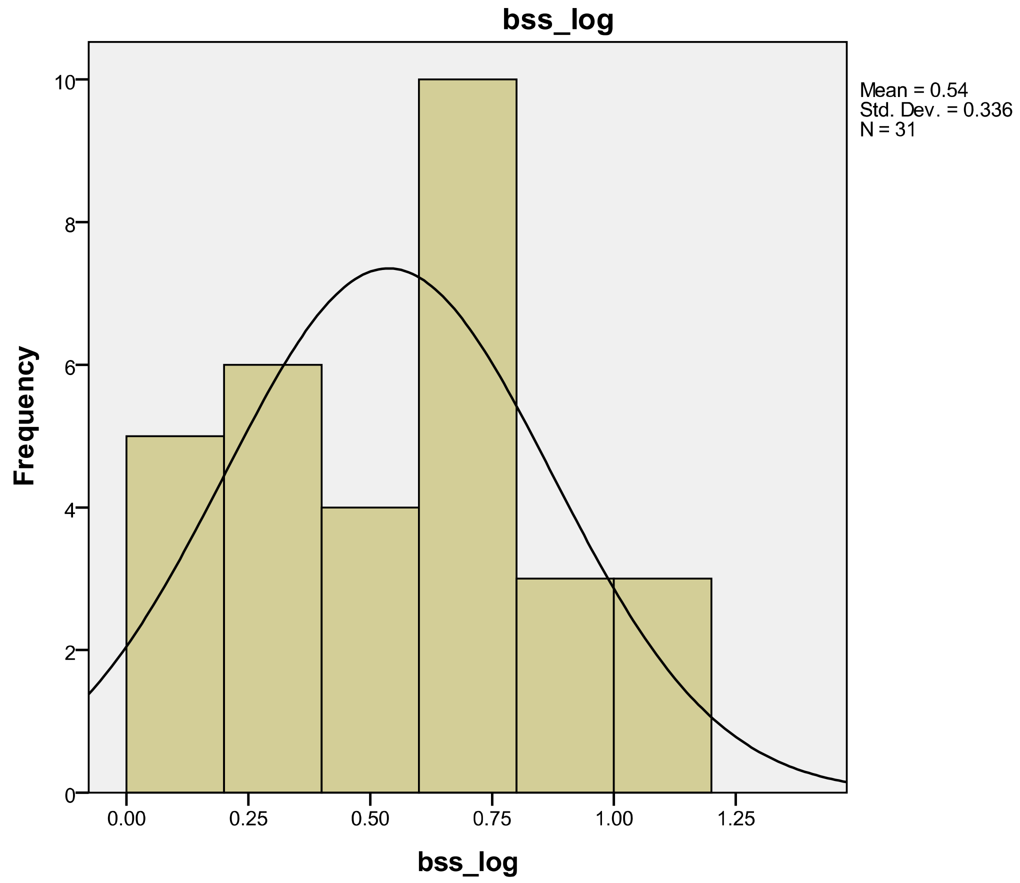

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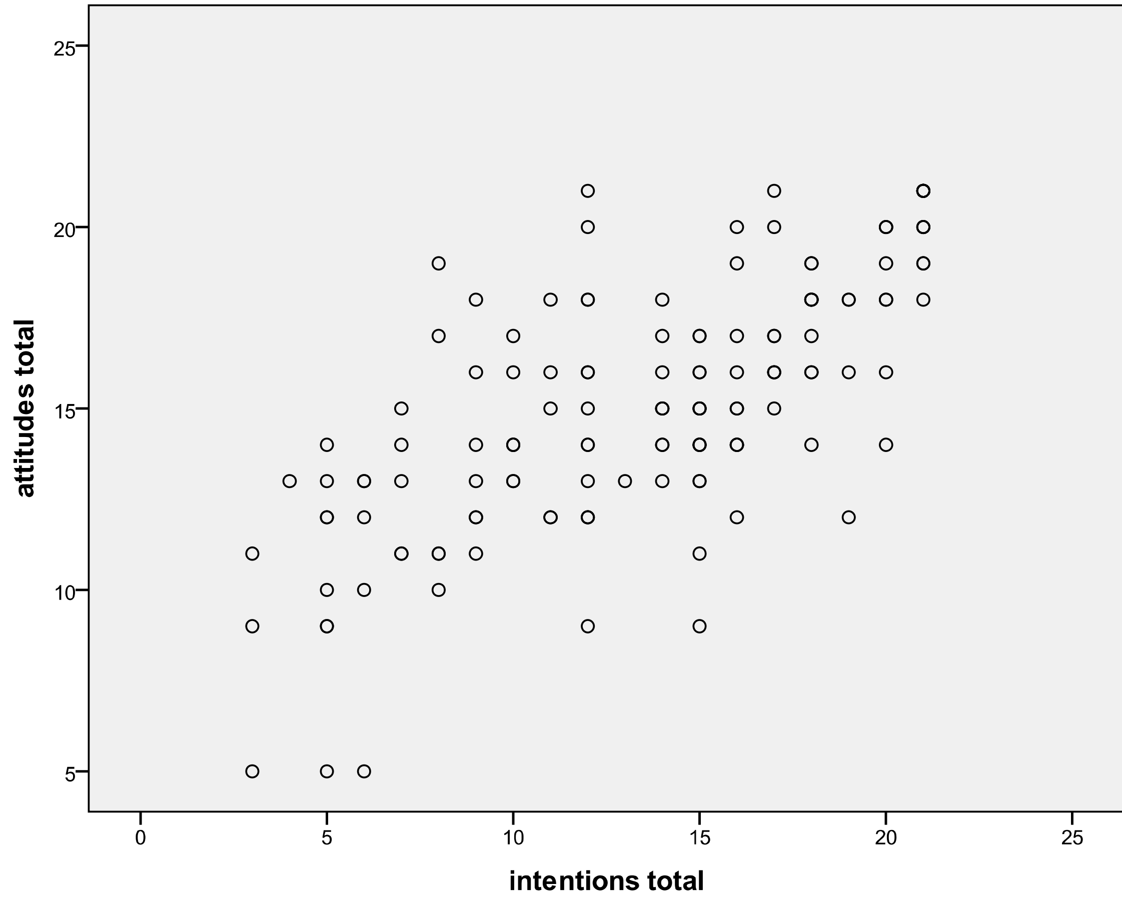

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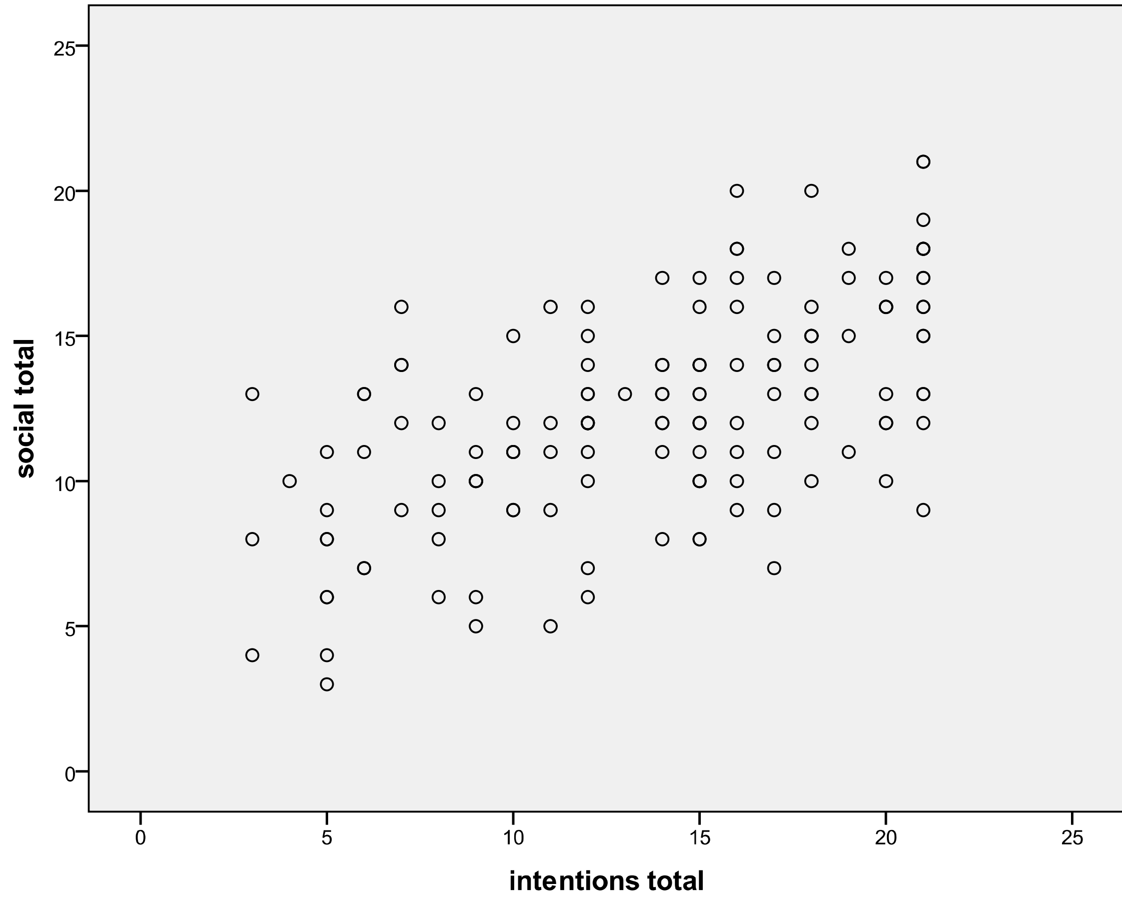

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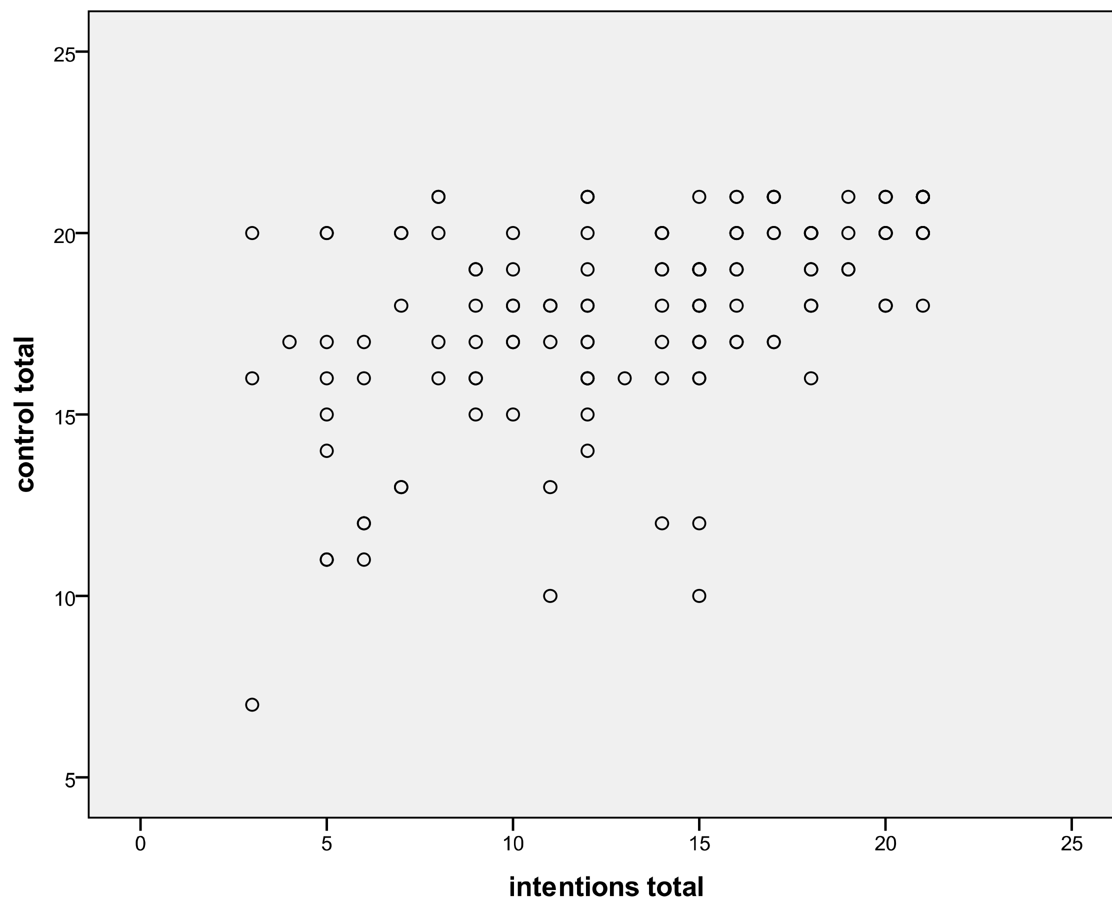

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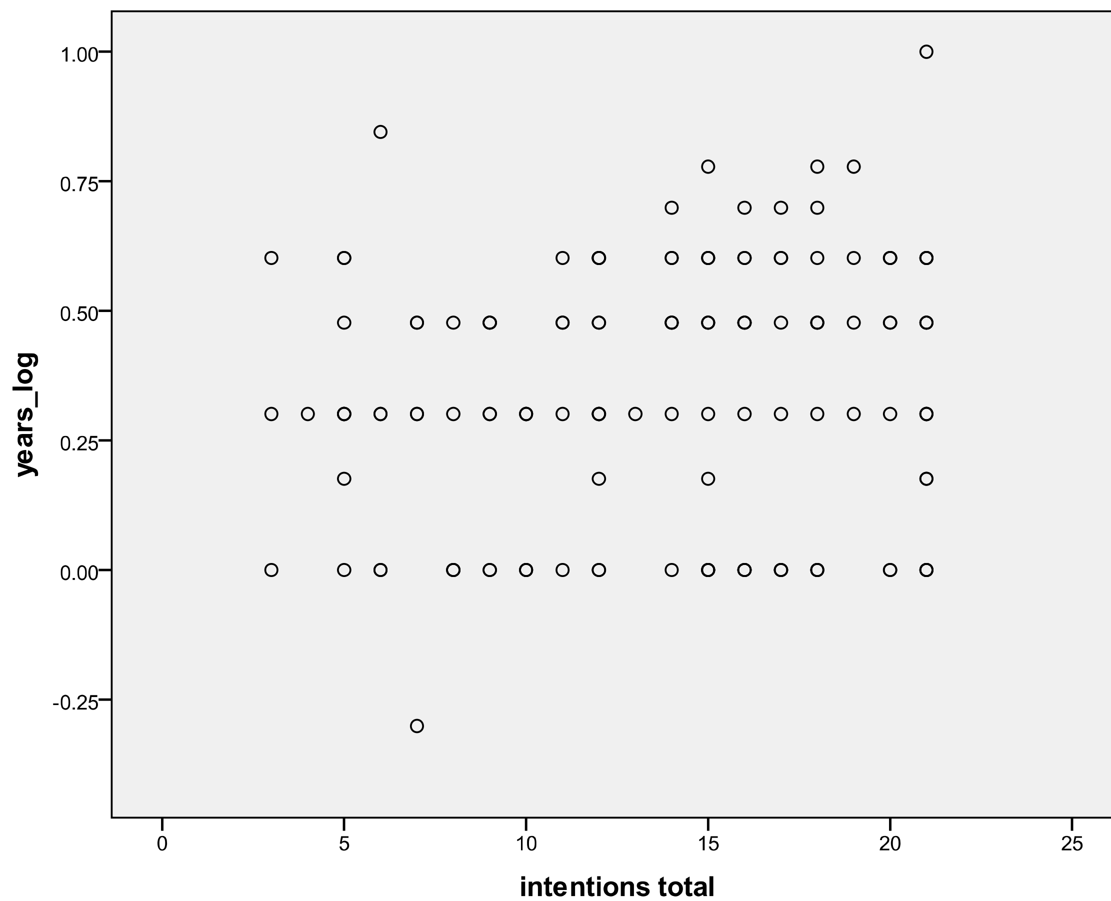

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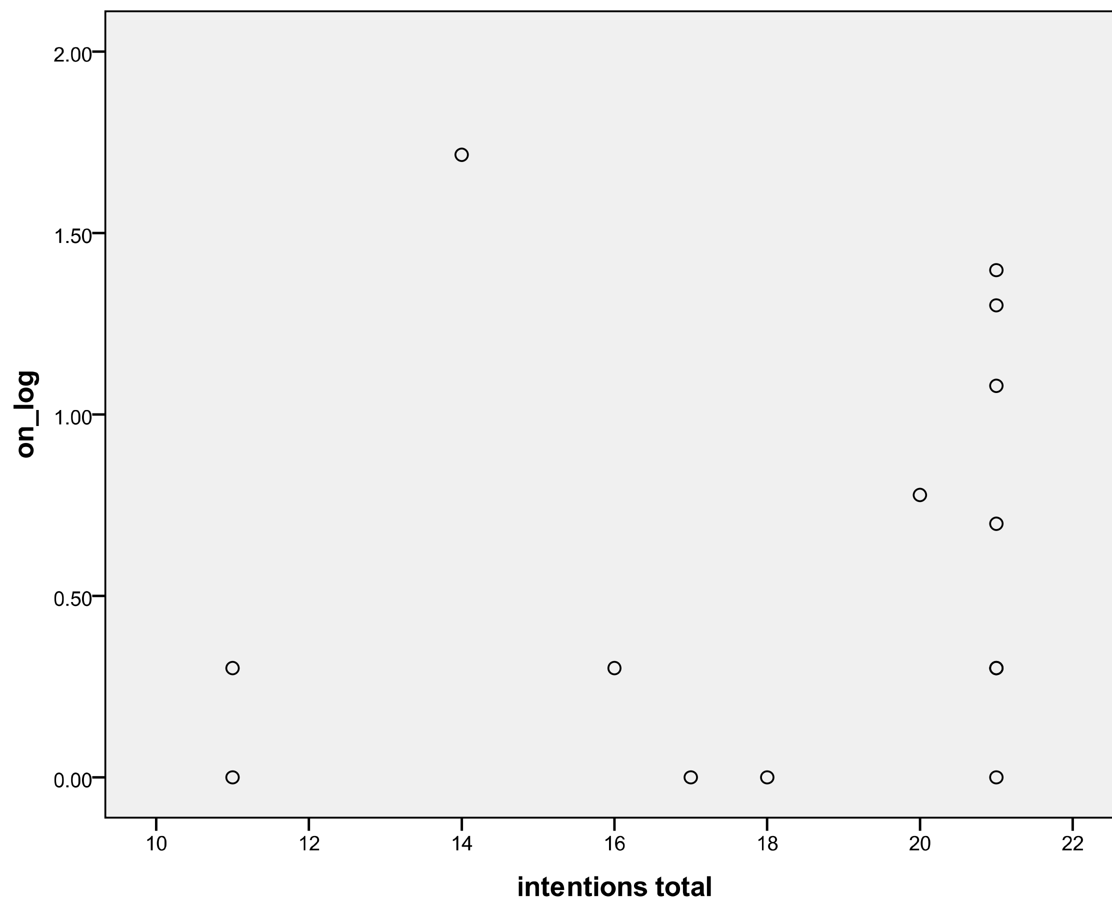

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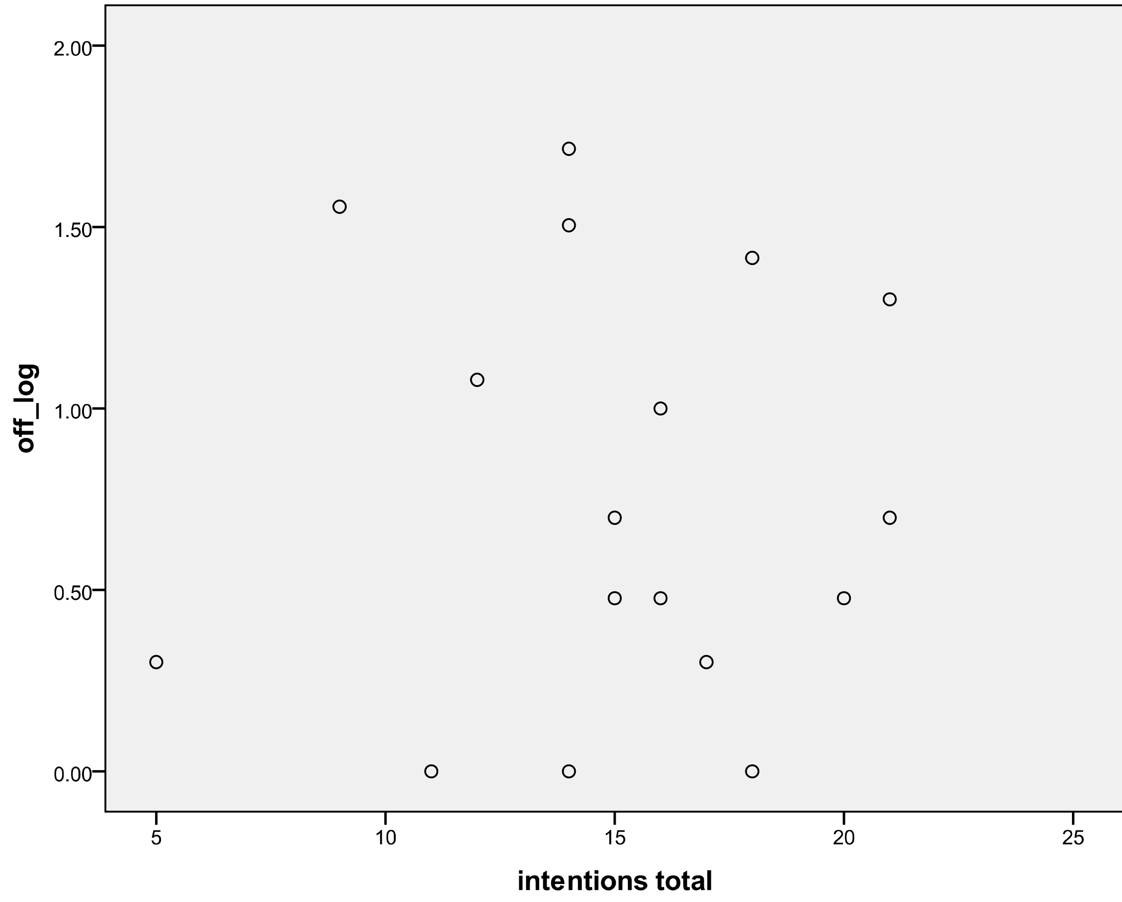

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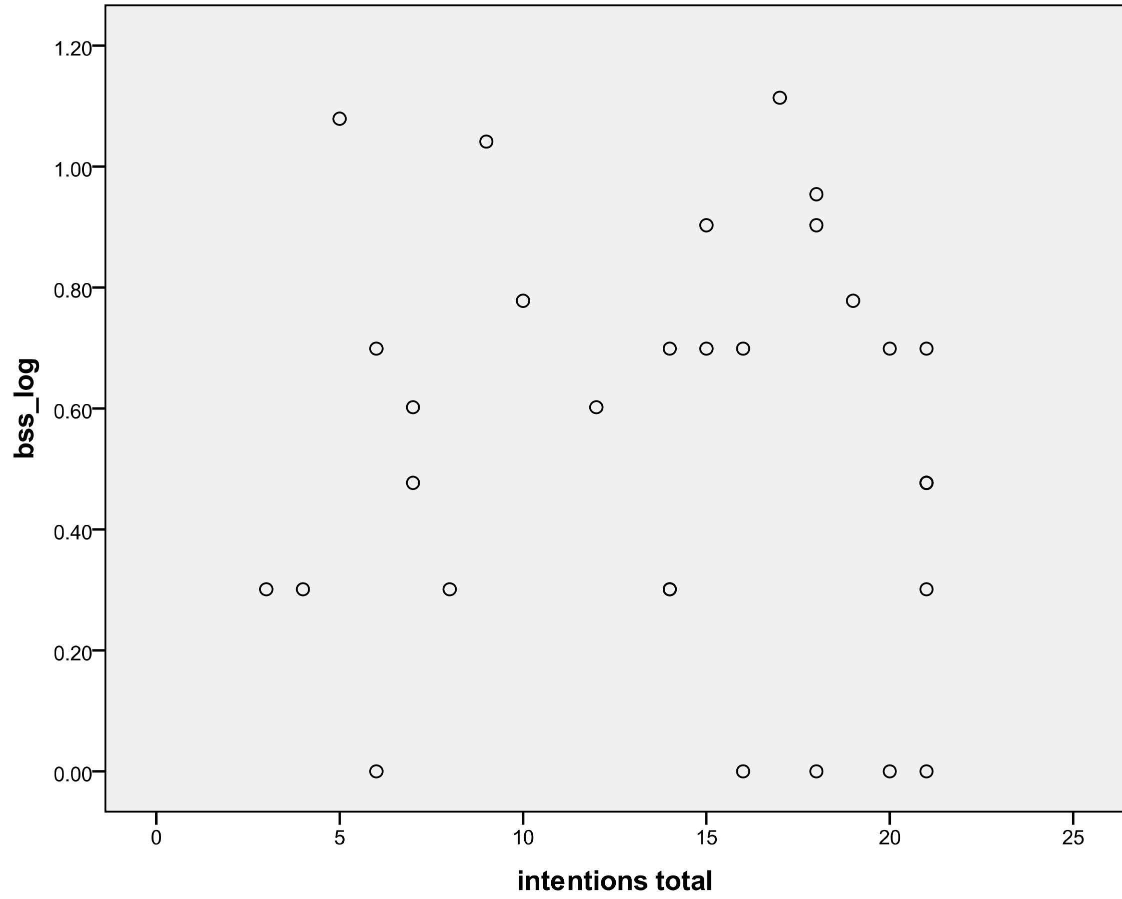

Figure 27.

Appendix A

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Office of Research Integrity
Institutional Review Board
401 11th St., Suite 1300
Huntington, WV 25701

FWA 00002704

IRB1 #00002205
IRB2 #00003206

June 29, 2009

Martin Amerikaner, Ph.D.
Psychology Department

RE: IRBNet ID# 120856-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Amerikaner:

Protocol Title: [120856-1] College Students' Intentions to Seek Help for Emotional Problems

Expiration Date: June 28, 2010
Site Location: MU
Type of Change: New Project APPROVED
Review Type: Exempt Review

In accordance with 45CFR46.101(b)(2), the above study and informed consent were granted Exemptedapproval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Chair for the period of 12 months. The approval will expire June 28, 2010. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Jennifer Mills.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, CIP at (304) 696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.

Generated on IRBNet

Appendix B

Help-seeking Survey

Students choose to seek help or to not seek help for emotional problems for a variety of reasons. We are interested in your personal opinions regarding seeking help for an emotional problem. By an emotional problem, we mean things like experiencing depression, having suicidal thoughts, or using drugs and alcohol excessively. Please read each question carefully and answer it to the best of your ability. There are no correct or incorrect responses; we are merely interested in your personal point of view.

Take as much time as you need to answer each question and write down anything that comes to mind. If you need additional room, please use the back of the page and indicate the number of the question you are answering. Please answer each question to the best of your ability, even if you are not currently experiencing an emotional problem. Read each question carefully and ask the experimenter if you have any questions.

The instructor of your psychology course has **nothing** to do with this study and will **not** see your responses. Please be assured that the information you provide in this study will have **no effect on your grade.**

Thank you for your participation in this study.

Age:__________ **Race:**______________

Gender: Male Female No answer

Grade: Freshman Sophomore Junior Senior Returning Student Other

---

1) What do you believe are the advantages of looking up information about symptoms of emotional problems on the Internet?

2) What do you believe are the disadvantages of looking up information about symptoms of emotional problems on the Internet?

3) Is there anything else you associate with your looking up information about symptoms of emotional problems on the Internet?

4) What do you believe are the advantages of talking to a friend or family member about your emotional problems?

5) What do you believe are the disadvantages of talking to a friend or family member about your emotional problems?

6) Is there anything else you associate with your talking to a friend or family member about your emotional problems?

7) What do you believe are the advantages of making an appointment or dropping in to campus mental health services for emotional problems?

8) What do you believe are the disadvantages of making an appointment or dropping in to campus mental health services for emotional problems?

9) Is there anything else you associate with your making an appointment or dropping in to campus mental health services for emotional problems?

10) What do you believe are the advantages of attending regular therapy or counseling with a campus mental health resource for emotional problems?

11) What do you believe are the disadvantages of attending regular therapy or counseling with a campus mental health resource for emotional problems?

12) Is there anything else you associate with your attending regular therapy or counseling with a campus mental health resource for emotional problems?

13) What do you believe are the advantages of making an appointment or dropping in to an off-campus mental health resource for emotional problems?

14) What do you believe are the disadvantages of making an appointment or dropping in to an off-campus mental health resource for emotional problems?

15) Is there anything else you associate with your making an appointment or dropping in to an off-campus mental health resource for emotional problems?

16) What do you believe are the advantages of attending regular therapy or counseling with an off-campus mental health resource for emotional problems?

17) What do you believe are the disadvantages of attending regular therapy or counseling with an off-campus mental health resource for emotional problems?

18) Is there anything else you associate with your attending regular therapy or counseling with an off-campus mental health resource for emotional problems?

This section of the survey asks questions about individuals or groups who may approve or disapprove of your seeking help for an emotional problem. Please do not provide any identifying information about these individuals, but **do** indicate your relationship. (ie. “my mother” rather than “Jane Smith”).

1) Are there any individuals or groups who would approve of your looking up information about symptoms of emotional problems on the Internet? Who specifically?

2) What individuals or groups would disapprove of your looking up information about symptoms of emotional problems on the Internet?

3) What individuals or groups come to mind when you think about looking up information about symptoms of emotional problems on the Internet?

4) What individuals or groups would approve of your talking to a friend or family member about your emotional problems?

5) What individuals or groups would disapprove of your talking to a friend or family member about your emotional problems?

6) What individuals or groups come to mind when you think about talking to a friend or family member about your emotional problems?

7) What individuals or groups would approve of your making an appointment or dropping in to campus mental health services for emotional problems?

8) What individuals or groups would disapprove of your making an appointment or dropping in to campus mental health services for emotional problems?

9) What individuals or groups come to mind when you think about making an appointment or dropping in to campus mental health services for emotional problems?

10) What individuals or groups would approve of your attending regular therapy or counseling with a campus mental health resource for emotional problems?

11) What individuals or groups would disapprove of your attending regular therapy or counseling with a campus mental health resource for emotional problems?

12) What individuals or groups come to mind when you think about attending regular therapy or counseling with a campus mental health resource for emotional problems?

13) What individuals or groups would approve of your making an appointment or dropping in to an off-campus mental health resource for emotional problems?

14) What individuals or groups would disapprove of your making an appointment or dropping in to an off-campus mental health resource for emotional problems?

15) What individuals or groups come to mind when you think about making an appointment or dropping in to an off-campus mental health resource for emotional problems?

16) What individuals or groups would approve of your attending regular therapy or counseling with an off-campus mental health resource for emotional problems?

17) What individuals or groups would disapprove of your attending regular therapy or counseling with an off-campus mental health resource for emotional problems?

18) What individuals or groups come to mind when you think about attending regular therapy or counseling with an off-campus mental health resource for emotional problems?

1) What factors or circumstances would enable you to look up information about symptoms of emotional problems on the Internet?

2) What factors or circumstances would make it difficult or impossible for you to look up information about symptoms of emotional problems on the Internet?

3) Are there any other issues that come to mind when you think about the difficulty of looking up information about symptoms of emotional problems on the Internet?

4) What factors or circumstances would enable you to talk to a friend or family member about your emotional problems?

5) What factors or circumstances would make it difficult or impossible for you to talk to a friend or family member about your emotional problems?

6) Are there any other issues that come to mind when you think about the difficulty of talking to a friend or family member about your emotional problems?

7) What factors or circumstances would enable you to make an appointment or dropping in to campus mental health services for emotional problems?

8) What factors or circumstances would make it difficult or impossible for you to make an appointment or dropping in to campus mental health services for emotional problems?

9) Are there any other issues that come to mind when you think about the difficulty of making an appointment or dropping in to campus mental health services for emotional problems?

10) What factors or circumstances would enable you to attend regular therapy or counseling with a campus mental health resource for emotional problems?

11) What factors or circumstances would make it difficult or impossible for you to attend regular therapy or counseling with a campus mental health resource for emotional problems?

12) Are there any other issues that come to mind when you think about the difficulty of attending regular therapy or counseling with a campus mental health resource for emotional problems?

13) What factors or circumstances would enable you to make an appointment or dropping in to an off-campus mental health resource for emotional problems?

14) What factors or circumstances would make it difficult or impossible for you to make an appointment or dropping in to an off-campus mental health resource for emotional problems?

15) Are there any other issues that come to mind when you think about the difficulty of making an appointment or dropping in to an off-campus mental health resource for emotional problems?

16) What factors or circumstances would enable you to attend regular therapy or counseling with an off-campus mental health resource for emotional problems?

17) What factors or circumstances would make it difficult or impossible for you to attend regular therapy or counseling with an off-campus mental health resource for emotional problems?

18) Are there any other issues that come to mind when you think about the difficulty of attending regular therapy or counseling with an off-campus mental health resource for emotional problems?

Thank you for your participation in this study.

Please return your completed survey to the manila envelope provided by the examiner.

Appendix C

Table C1

Advantages of Using the Internet to Seek Help

Attitude	Number of times reported	Percentage of participants who reported	Percentage of advantages this category
Would be anonymous/private	8	22%	14%
Would refer me to get help	8	22%	14%
Would give me information	7	19%	12%
Would help me understand what to expect	7	19%	12%
Would help me identify symptoms	6	16%	10%
Would help me learn about myself	5	14%	9%
Would be convenient (location)	3	8%	5%
Would feel others have same problem	3	8%	5%
Would give me an accurate diagnosis	3	8%	5%
Would be easy to access service	2	5%	3%
Would fit into my schedule	1	3%	2%
Would be affordable (free)	1	3%	3%

Table C2

Disadvantages of Using the Internet to Seek Help

Attitude	Number of times reported	Percentage of participants who reported	Percentage of disadvantages this category
Would give me inaccurate information	16	43%	42%
Would be misdiagnosed	5	14%	13%
Would make me think I have an illness	5	14%	13%
Would be upset by what I found out	3	8%	8%
Would not be as helpful as human contact	3	8%	8%
Would allow me to avoid getting real help	2	5%	5%
Would be hard to understand information	2	5%	5%
Would not be as helpful as professional	2	5%	5%

Table C3

Others Approving of Using the Internet to Seek Help

Relationship	Number of times reported	Percentage of participants who reported	Percentage of approving others this category
Mother	19	51%	30%
Friend	9	24%	14%
Family, unspecified	7	19%	11%
Father	5	14%	8%
Romantic partner	5	14%	8%
Sibling	3	8%	5%
Extended family members	2	5%	3%
Everyone I know	2	5%	3%
No one I know would approve	2	5%	3%
Co-worker	2	5%	3%
Child	2	5%	3%
Teacher	2	5%	3%
No one I know cares	2	5%	3%
Boss	1	3%	2%
Therapist	1	3%	2%

Table C4

Others Disapproving of Using the Internet to Seek Help

Relationship	Number of times reported	Percentage of participants who reported	Percentage of disapproving others this category
No one I know would disapprove	13	35%	39%
Father	4	11%	12%
Members of my church	3	8%	9%
Mother	2	5%	6%
Sibling	2	5%	6%
Friend	2	5%	6%
Family, unspecified	2	5%	6%
Extended family members	2	5%	6%
Romantic partner	2	5%	6%
Everyone I know	2	5%	6%
No one I know cares	2	5%	6%
Therapist	1	3%	3%

Table C5

Enabling Circumstances for Using the Internet to Seek Help

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I realized I had a problem	18	41%	48%
If someone I knew had a problem	7	19%	18%
If I had Internet access	5	14%	13%
If I knew it would be private	3	8%	8%
If another person referred me	3	8%	8%
If I needed information	2	5%	5%
If I had the time	1	3%	3%
If I knew the source was credible	1	3%	3%

Table C6

Inhibiting Circumstances for Using the Internet to Seek Help

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I did not have Internet access	15	41%	38%
If it was not private	9	24%	21%
If it was not a credible source	7	19%	17%
If I did not know how to describe	7	19%	17%
If others did not accept my choice	2	5%	5%
If I did not have the time	1	3%	2%
If another person did not refer me	1	3%	2%

Table C7

Advantages of Talking to Friend or Family Member

Attitude	Number of times reported	Percentage of participants who reported	Percentage of advantages this category
Would be understanding/empathic	9	24%	15%
Would be helpful	6	16%	10%
Would be able to trust them	6	16%	10%
Would be comfortable/easy to talk to	6	16%	10%
Would allow me to express my feelings	5	14%	8%
Would refer me to get help	5	14%	8%
Would give me advice	4	11%	7%
Would provide needed human contact	4	11%	7%
Would provide support	3	8%	5%
Would make me feel better	3	8%	5%
Would feel others have same problem	2	5%	3%
Would give me information	2	5%	3%
Would care about me	2	5%	3%
Would be convenient (location)	1	3%	2%
Would help me learn about myself	1	3%	2%
Would help me understand what to expect	1	3%	2%
Would be confidential	1	3%	2%

Table C8

Disadvantages of Talking to a Friend or Family Member

Attitude	Number of times reported	Percentage of participants who reported	Percentage of disadvantages this category
Would be biased	11	30%	26%
Would upset the helper	7	19%	16%
Would not be confidential	6	16%	14%
Would not be as helpful as professional	4	9%	11%
Would not be empathic	4	9%	11%
Would not be helpful	3	8%	7%
Would not be able to trust helper	3	8%	7%
Would give me bad advice	3	8%	7%
Would give me inaccurate information	1	3%	2%
Would feel intrusive	1	3%	2%

Table C9

Others Approving of Talking to a Friend or Family Member

Relationship	Number of times reported	Percentage of participants who reported	Percentage of approving others this category
Mother	11	30%	21%
Friend	10	27%	19%
Family, unspecified	9	24%	17%
Everyone I know	7	19%	13%
Father	5	14%	10%
Sibling	2	5%	4%
Extended family members	1	3%	2%
No one I know would approve	1	3%	2%
Teacher	1	3%	2%
Boss	1	3%	2%
Members of my church	1	3%	2%
Doctor	1	3%	2%

Table C10

Others Disapproving of Talking to a Friend or Family Member

Relationship	Number of times reported	Percentage of participants who reported	Percentage of disapproving others this category
No one I know would disapprove	17	46%	57%
Father	3	8%	10%
Family, unspecified	2	5%	7%
Mother	1	3%	3%
Sibling	1	3%	3%
Friend	1	3%	3%
Romantic partner	1	3%	3%
Child	1	3%	3%
Therapist	1	3%	3%
Members of my church	1	3%	3%
Military friends	1	3%	3%

Table C11

Enabling Circumstances for Talking to a Friend or Family Member

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I realized I had a problem	15	41%	43%
If the helper seemed open	11	30%	31%
If a friend was available to help me	4	11%	11%
If I had the time	3	8%	9%
If I knew it would be private	2	5%	6%

Table C12

Inhibiting Circumstances for Talking to a Friend or Family Member

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If a friend was not available	7	19%	19%
If others did not accept my choice	6	16%	16%
If I felt judged	6	16%	16%
If I were being a burden by asking	5	14%	14%
If I were too proud to ask for help	3	8%	8%
If I did not have the time to go	2	5%	5%
If it was not a credible source	2	5%	5%
If I were asked questions personal	2	5%	5%
If I did not realize I had a problem	1	3%	3%
If it was not private	1	3%	3%
If the helper did not seem open	1	3%	3%
If it was not confidential	1	3%	3%

Table C13

Advantages of Dropping in to Off-Campus Service

Attitude	Number of times reported	Percentage of participants who reported	Percentage of advantages this category
Would be professional	8	22%	25%
Would allow me to express my feelings	4	11%	13%
Would be helpful	3	8%	9%
Would be easier to talk to a stranger	3	8%	9%
Would be convenient to get there	2	5%	6%
Would be anonymous/private	2	5%	6%
Would make me feel better	2	5%	6%
Would be affordable	1	3%	3%
Would be able to trust them	1	3%	3%
Would be comfortable/easy to talk to	1	3%	3%
Would be confidential	1	3%	3%
Would help me resolve problem	1	3%	3%
Would prescribe me medication	1	3%	3%

Table C14

Disadvantages of Dropping in to Off-campus Services

Attitude	Number of times reported	Percentage of participants who reported	Percentage of disadvantages this category
Would be too expensive	10	27%	48%
Would not fit into my schedule	3	8%	14%
Would not be private	3	8%	14%
Would be inconvenient to get there	2	5%	10%
Would be misdiagnosed	1	3%	5%
Would not be helpful	1	3%	5%
Would make me feel uncomfortable	1	3%	5%

Table C15

Others Approving of Dropping in to Off-campus Service

Relationship	Number of times reported	Percentage of participants who reported	Percentage of approving others this category
Friend	15	41%	31%
Family, unspecified	11	30%	23%
Mother	5	14%	10%
Romantic partner	4	11%	8%
Father	3	8%	6%
Sibling	1	3%	2%
Extended family members	1	3%	2%
Everyone I know	1	3%	2%
No one I know would approve	1	3%	2%
Co-worker	1	3%	2%
Child	1	3%	2%
Teacher	1	3%	2%
No one I know cares	1	3%	2%
Boss	1	3%	2%
Therapist	1	3%	2%
Members of my church	1	3%	2%

Table C16

Others Disapproving of Dropping in to Off-campus Services

Relationship	Number of times reported	Percentage of participants who reported	Percentage of disapproving others this category
No one I know would disapprove	12	32%	46%
Father	4	11%	14%
Friend	2	5%	8%
Family, unspecified	1	3%	4%
Extended family members	1	3%	4%
Romantic partner	1	3%	4%
Everyone I know	1	3%	4%
No one I know cares	1	3%	4%
Teammates	1	3%	4%
Myself	1	3%	4%

Table C17

Enabling Circumstances for Dropping in to Off-campus Service

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I realized I had a problem	12	32%	35%
If it was affordable	4	14%	15%
If it was easy to get there	4	11%	11%
If others accepted my choice	4	11%	11%
If I had the time to go	3	8%	9%
If another person referred me	2	5%	6%
If I knew it would be private	1	3%	3%
If I knew the source was credible	1	3%	3%
If it was easy to access the service	1	3%	3%

Table C18

Inhibiting Circumstances for Dropping in to Off-campus Service

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If it was not affordable	14	38%	47%
If I did not have the time	7	19%	23%
If I did not realize I had a problem	3	8%	10%
If it was difficult to get there	3	8%	10%
If I didn't know where to go	2	5%	6%
If I were uncomfortable stranger	1	3%	3%

Table C19

Advantages of Regular Therapy Off-Campus

Attitude	Number of times reported	Percentage of participants who reported	Percentage of advantages this category
Would be helpful	6	16%	17%
Would make me feel better	6	16%	17%
Would allow me to express my feelings	5	14%	14%
Would provide me with continuity	5	14%	14%
Would help me resolve problem	4	11%	11%
Would be anonymous/private	2	5%	6%
Would help me learn about myself	2	5%	6%
Would be professional	2	5%	6%
Would feel others have same problem	1	3%	3%
Would be able to trust them	1	3%	3%
Would be confidential	1	3%	3%

Table C20

Disadvantages of Regular Therapy Off-campus

Attitude	Number of times reported	Percentage of participants who reported	Percentage of disadvantages this category
Would be too expensive	9	24%	43%
Would be inconvenient to get there	4	11%	19%
Would not fit into my schedule	3	8%	14%
Would not be helpful	2	5%	10%
Would not be private	1	3%	5%
Would be misdiagnosed	1	3%	5%
Would make me uncomfortable stranger	1	3%	5%

Table C21

Others Approving of Regular Therapy Off-campus

Relationship	Number of times reported	Percentage of participants who reported	Percentage of approving others this category
Friend	10	27%	22%
Everyone I know	10	27%	22%
Family, unspecified	8	22%	18%
Mother	7	19%	16%
Father	2	5%	4%
Extended family members	2	5%	4%
Romantic partner	2	5%	4%
Sibling	1	3%	2%
No one I know would approve	1	3%	2%
Child	1	3%	2%
No one I know cares	1	3%	2%

Table C22

Others Disapproving of Regular Therapy Off-campus

Relationship	Number of times reported	Percentage of participants who reported	Percentage of disapproving others this category
No one I know would disapprove	13	35%	48%
Father	5	14%	19%
No one I know cares	2	5%	7%
Mother	1	3%	3%
Family, unspecified	1	3%	3%
Extended family members	1	3%	3%
Romantic partner	1	3%	3%
Everyone I know would disapprove	1	3%	3%
Teammates	1	3%	3%

Table C23

Enabling Circumstances for Regular Therapy Off-campus

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If I realized I had a problem	10	27%	40%
If it was affordable	5	14%	20%
If it was easy to get there	4	11%	16%
If others accepted my choice	1	3%	4%
If I had the time	1	3%	4%
If another person referred me	1	3%	4%
If it was easy to access the service	1	3%	4%

Table C24

Inhibiting Circumstances for Regular Therapy Off-campus

Circumstance	Number of times reported	Percentage of participants who reported	Percentage of circumstances this category
If it was not affordable	18	49%	60%
If I did not have the time to go	9	24%	30%
If I did not realize I had a problem	2	5%	6%
If I were asked questions personal	2	5%	6%
If I were uncomfortable stranger	1	3%	3%
If I were not willing to go	1	3%	3%
If I did not know what to expect	1	3%	3%

Appendix D

w w w . m a r s h a l l . e d u

Office of Research Integrity
Institutional Review Board
401 11th St., Suite 1300
Huntington, WV 25701

FWA 00002704

IRB1 #00002205
IRB2 #00003206

February 3, 2010

Martin Amerikaner, Ph.D.
Psychology Department

RE: IRBNet ID# 120856-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Amerikaner:

Protocol Title: [150901-1] Does the Theory of Planned Behavior Predict Intentions to Seek Help for Emotional Problems?

Expiration Date: February 2, 2011
Site Location: MU
Type of Change: New Project APPROVED
Review Type: Exempt Review

In accordance with 45CFR46.101(b)(2), the above study and informed consent were granted Exemptedapproval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Chair for the period of 12 months. The approval will expire June 28, 2010. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Jennifer Mills.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, CIP at (304) 696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.

Generated on IRBNet

Appendix E

Campus Mental Health Services Survey

Students choose to seek help or to not seek help for emotional problems for a variety of reasons. We are interested in your personal opinions regarding seeking help for an emotional problem. By an emotional problem, we mean things like feeling depressed, having suicidal thoughts, or using drugs and alcohol excessively. By using campus mental health services, we mean dropping into, making an appointment with, or attending regular counseling at the Marshall University Counseling Center or making an appointment with or attending regular therapy at the Marshall University Psychology Clinic. Please read each question carefully and answer it to the best of your ability. There are no correct or incorrect responses; we are merely interested in your personal point of view.

Many questions in this survey make use of rating scales with 7 places; you are to circle the number that best describes your opinion. For example, if you were asked to rate "The Weather in Huntington" on such a scale, the 7 places should be interpreted as follows:

Sample) The weather in Huntington is good.

1	**2**	**3**	**4**	**5**	**6**	**7**
Extremely bad	Somewhat bad	Slightly bad	Neither bad nor good	Slightly good	Somewhat good	Extremely good

If you think the weather in Huntington is extremely good, then you would circle number 7, like this:

1	**2**	**3**	**4**	**5**	**6**	**7** (circled)
Extremely bad	Somewhat bad	Slightly bad	Neither good nor bad	Slightly good	Somewhat good	Extremely good

If you think the weather in Huntington is pretty good, then you would circle number 6,

like this:

1	**2**	**3**	**4**	**5**	**6** (circled)	**7**
Extremely bad	Somewhat bad	Slightly bad	Neither good nor bad	Slightly good	Somewhat good	Extremely good

If you think the weather in Huntington is slightly bad, then you would circle number 3, like this:

1	**2**	**3** (circled)	**4**	**5**	**6**	**7**
Extremely bad	Somewhat bad	Slightly bad	Neither good nor bad	Slightly good	Somewhat good	Extremely good

If you think the weather in Huntington is neither good nor bad, then you would circle number 4, like this:

1	**2**	**3**	**4** (circled)	**5**	**6**	**7**
Extremely bad	Somewhat bad	Slightly bad	Neither good nor bad	Slightly good	Somewhat good	Extremely good

Take as much time as you need to answer each question. Please answer each question to the best of your ability, *even if you are not currently experiencing an emotional problem*. Read each question and the response options ***carefully*** and ask the experimenter if you

have any questions. The instructor of your psychology course has **nothing** to do with this study and will **not** see your responses. Please be assured that the information you provide in this study will have **no effect on your grade.**

1) If a friend had an emotional problem and wanted to receive therapy or counseling **on campus**, where would you tell him or her to go?

For items 2 and 3, please write in a whole number.
For example, if you talked to someone at the counseling center one time on an emergency basis, you would write in 1. If you attended therapy weekly, every week, for one year, you would write in 52.

2) During the past year, I have received therapy or counseling services on campus approximately ____________ times.

3) During the past year, I have received therapy or counseling services (not at Marshall) approximately ____________ times.

For items 4 through 15, please circle the number of the response that best describes your belief.

4) If I experienced an emotional problem, it would be good for me to use campus mental health services.

1	2	3	4	5	6	7
Extremely bad	Somewhat bad	Slightly bad	Neither good nor bad	Slightly good	Somewhat good	Extremely good

5) It would be easy for me to use campus mental health services.

1	2	3	4	5	6	7
Extremely difficult	Somewhat difficult	Slightly difficult	Neither easy nor difficult	Slightly easy	Somewhat easy	Extremely easy

6) If I experienced an emotional problem, it would be worthless for me to use campus mental health services.

1	2	3	4	5	6	7
Extremely valuable	Somewhat valuable	Slightly valuable	Neither worthless nor valuable	Slightly worthless	Somewhat worthless	Extremely worthless

7) Most people who are important to me think that I should use campus mental health services if I experience an emotional problem.

1	2	3	4	5	6	7
Definitely false	Somewhat false	Slightly false	Neither true nor false	Slightly true	Somewhat true	Definitely true

8) I intend to use campus mental health services if I experience an emotional problem.

1	2	3	4	5	6	7
Definitely false	Somewhat false	Slightly false	Neither true nor false	Slightly true	Somewhat true	Definitely true

9) Most of the Marshall students with whom I am acquainted use campus mental health services when they experience emotional problems.

1	2	3	4	5	6	7
Definitely false	Somewhat false	Slightly false	Neither true nor false	Slightly true	Somewhat true	Definitely true

10) If I experienced an emotional problem, it would be pleasant for me to use campus mental health services.

1	2	3	4	5	6	7
Extremely unpleasant	Somewhat unpleasant	Slightly unpleasant	Neither pleasant nor unpleasant	Slightly pleasant	Somewhat pleasant	Extremely pleasant

11) Most people whose opinions I value would approve of me using campus mental health services.

1	2	3	4	5	6	7
Definitely false	Somewhat false	Slightly false	Neither true nor false	Slightly true	Somewhat true	Definitely true

12) It is completely up to me whether or not I use campus mental health services.

1	2	3	4	5	6	7
Definitely false	Somewhat false	Slightly false	Neither true nor false	Slightly true	Somewhat true	Definitely true

13) I am confident that if I wanted to, I could use campus mental health services.

1	2	3	4	5	6	7
Definitely false	Somewhat false	Slightly false	Neither true nor false	Slightly true	Somewhat true	Definitely true

14) I will make an effort to use campus mental health services if I experience an emotional problem.

1	2	3	4	5	6	7
Definitely false	Somewhat false	Slightly false	Neither false nor true	Slightly true	Somewhat true	Definitely true

15) I plan to use campus mental health services if I experience an emotional problem.

1	2	3	4	5	6	7
Definitely false	Somewhat false	Slightly false	Neither true nor false	Slightly true	Somewhat true	Definitely true

16) Number of Years at Marshall: _____________

17) Race:____________________

18) Gender:

1. Male
2. Female
3. Other
4. Prefer not to answer

19) Please indicate your sexual orientation by circling the number of the option that best describes you:

1. A man or a woman who is attracted to members of the opposite sex
2. A man or a woman who is attracted to members of both sexes
3. A man who is attracted to other men
4. A woman who is attracted to other women
5. Asexual
6. Prefer not to answer

20) Please circle the number of the option that best describes your hometown:

1. Urbanized Area: Population of 50,000 or greater (Example: Lexington, KY)
2. Urban Cluster: Population between 2,500 and 50,000 (Example: Huntington, WV)
3. Rural: Population below 2,500 (Example: Pikeville, KY and Wayne, WV)

Please return your packet to the experimenter.
Thank you for your participation in this study.

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Smith, J.P., Tran, G.Q., & Thompson, R.D. (2008). Can the theory of planned behavior help explain men's mental health help-seeking? Evidence for a mediation effect and clinical implications. *Psychology of Men & Masculinity, 9*(3), 179-192.

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CURRICULUM VITAE

Jennifer Mills, M.A.

CONTACT INFORMATION

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3157 Woodford Rd
Apartment B
Cincinnati, OH 45213
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EDUCATION

Psy.D.
Marshall University, Huntington, WV
Program: Clinical Psychology Doctoral, APA Accredited
Degree Expected: August 2011
Cumulative GPA: 4.0
Dissertation Title: *Does the Theory of Planned Behavior predict intentions to seek help for suicidality?*
Dissertation Chair: Martin Amerikaner, Ph.D.

M.A.
Marshall University, Huntington, WV
Major: Psychology
Degree Awarded: August 2008
Cumulative GPA: 4.0

B.A.
Elizabethtown College, Elizabethtown, PA
Major: Psychology Minor: Japanese
Degree Awarded: May 2004, *Magna cum Laude*
Cumulative GPA: 3.89
Thesis Title: *It takes one to know one: Does intelligence affect estimates of intelligence in others?*
Thesis Advisor: John Ruscio, Ph.D.

ADDITIONAL COURSEWORK

07/2005-08/2005
Stanford University, Palo Alto, CA
Summer Institute in Political Psychology

08/2004-05/2005
Pennsylvania State University, University Park, PA
Graduate Coursework in Social Psychology

01/2003- 04/2003 **Nihon University,** Ichigaya, Tokyo, Japan
Intensive Japanese Language Program

HONORS & AWARDS

2010 Graduate College Summer Thesis Award, Marshall University
2010 Faculty Senate Research Committee Funding, Marshall University
2004 Honors in the Discipline, Department of Psychology, Elizabethtown College
2002- 2004 College Scholar, Elizabethtown College
2000- 2004 Hershey Honors Program, Elizabethtown College
2000- 2004 Provost Scholarship, Elizabethtown College

AFFILIATIONS

2009 Society of Clinical Psychology, Graduate Student Member
2008 American Psychological Association, Associate Member
2008 Academy for Behavioral and Cognitive Therapies, Graduate Student Member
2008 West Virginia Psychological Association, Student Member
2008 Society for the Psychological Study of Social Issues, Graduate Student Member

CERTIFICATIONS

2008 Certified QPR Gatekeeper Instructor

INTERNSHIP

09/2010- present Talbert House Affiliation Pre-doctoral Psychology Internship
Talbert House and Centerpoint Health, Cincinnati, OH

APPIC member site

Centerpoint Health, College Hill Office
24-hour per week major rotation. Provide individual therapy to adult and adolescent clients in a community mental health setting. Attend 9 hours of didactics, 2 hours of clinical supervision, and one hour of group supervision weekly.

Passages/Alternatives/The Bridge
8-hour per week minor rotation. Provide group therapy to substance dependent male and female adolescent clients in inpatient setting. Administer and interpret full-battery assessments.

Supervisors: Michelle Meagly, Psy.D., Gene Harris, Ph.D.

CLINICAL PRACTICA

07/2010 Camp New You Exploratory Sessions
Marshall University, Huntington, WV

Co-facilitated a daily narrative therapy group for adolescent girls ages 11-14 attending a two-week weight loss camp.

Supervisors: Marianna Footo-Linz, Ph.D., Keith W. Beard, Psy.D.

08/2009- 06/2010 Rural Practicum
Marshall University Psychology Clinic, Huntington, WV

Crum Middle School
Conducted individual therapy with children between the ages of 11 and 15 in a public school setting. Facilitated weekly resiliency-building group with female students in the eighth grade. Provided staff development and outreach activities, such as Title I presentation about adolescent development and parent presentation about resiliency. Attended one hour of clinical supervision and 1½ hours group supervision weekly.

ABLE Families
Provided staff development and outreach activities, such as stress and anger management presentations for Mother Infant Health Outreach Worker clients. Conducted weekly afterschool resiliency-building exercises for children ages 4-12.

Supervisors: Thomas Linz, Ph.D., Marianna Footo-Linz, Ph.D., Isabel Pino, M.D.

05/2009- 08/2009 Community Practicum Summer Rotation
M.U. Medical Center Department of Pediatrics, Huntington, WV

Administered and interpreted full-battery developmental assessments in an outpatient, university medical center setting. Attended1½ hours group supervision weekly.

Supervisors: Marianna Footo-Linz, Ph.D., Isabel Pino, M.D.

08/2008- 05/2009 Community Practicum
Prestera Center for Mental Health Services, Huntington, WV

Innerchange
Conducted individual therapy with adolescents using cognitive-behavioral therapy (CBT) and supportive counseling in a managed

care, day treatment setting. Family therapy using ecosystemic approach. Group therapy using CBT and motivational interviewing (MI). Attended bi-weekly staff meetings, one hour of clinical supervision, and 1½ hours group supervision weekly.

Renaissance Resource Center
Conducted initial assessments of substance-dependent female clients, many with co-occurring mental health conditions, in a managed-care setting. Individual therapy using MI, CBT, and *Seeking Safety* curriculum. Co-facilitated psychoeducational groups for long term residential and opiate-replacement therapy clients. Group topics included mood and anxiety disorders, parenting skills, relationships, defining values, and relapse prevention. Limited case management for clients involved in legal system and/or Child Protective Services.

Supervisors: Colleen Smith, M.A., Licensed Psychologist, Martin Amerikaner, Ph.D.

08/2007- 12/2008 Clinical Practicum
Marshall University Psychology Clinic, Huntington, WV

Conducted initial assessments of university students and community members in a private pay, outpatient setting. Individual therapy using CBT. Structured exposure for OCD, PTSD, and social phobia. Used
techniques from mindfulness and acceptance-based therapies in relapse prevention. Cognitively-oriented brief therapy for anger and coping with divorce. Conducted outreach activities. Attended staff meetings, one hour of individual clinical supervision, and 1½ hours group supervision weekly.

Supervisors: Thomas E. Ellis, Psy.D, APBB, Martin Amerikaner, Ph.D.

08/2007- 08/2008 Advanced Assessment Practicum
Marshall University Psychology Clinic, Huntington, WV

Administered and interpreted full-battery assessments for autism, ADHD, and learning disability evaluations. Attended one hour of group supervision weekly.

Supervisors: Marianna Footo-Linz, Ph.D., Keith W. Beard, Psy.D.

08/2007- 05/2008 Head Start Mental Health Consultant, Advanced Assessment
Marshall University Psychology Clinic, Huntington, WV

Made bi-monthly site visits to four local Head Start classrooms to rate the availability of developmentally-appropriate activities, behavior management activities of teachers, and conduct of individual students. Offered referrals and psychoeducation for teachers and parents as needed, including a parent presentation on positive behavior support.

Supervisors: Marianna Footo-Linz, Ph.D., Keith W. Beard, Psy.D.

EMPLOYMENT

10/2009- 06/2010 Head Start Mental Health Consultant
Marshall University Psychology Clinic, Huntington, WV

Maintained monthly office hours at Monroe School. Followed-up on mental health referrals from mental health consultants performing classroom observations. Created behavior modification plans, consulted with teachers as needed.

Supervisor: Marianna Footo-Linz, Ph.D., Mary Olson, M.A.

05/2009- 08/2009 Graduate Assistant
Marshall University Medical Center, Huntington, WV

Administered neuropsychological assessment instruments to adults in an outpatient university medical center setting. Assisted with clerkship duties related to training medical students in psychiatry rotation.

Supervisors: Kelly Daniel, M.A., Stephen Cody, Ph.D., Tracy LeGrow, Psy.D.

05/2008- 05/2009 Graduate Assistant
Marshall University Psychology Department, Huntington, WV
and Prestera Center for Mental Health Services, Huntington, WV

Conducted outreach activities related to suicide prevention on campus, including QPR trainings and dorm presentations. Evaluated program outcomes using structured instrument. Worked on developing needs assessment for mental health services at Marshall University. Served as consultant for Marshall University Suicide Prevention Committee.

Supervisors: Martin Amerikaner, Ph.D., Stephanie Belford, M.S.W., L.G.S.W.

05/2006- Case Worker
08/2006 Information & Referral Services, Huntington, WV

Assisted low income community members in locating and applying for resources. Collected information for *Service Point* database as part of an effort to improve services for homeless clients in the greater Huntington, WV area.

Supervisor: Francine Buchanan, M.S.W.

09/2005- Case Manager
05/2006 Prestera Center for Mental Health, Huntington, WV

Conducted initial and tri-monthly assessments of clients between the ages of 4 and 18 in an outpatient, managed-care setting. Identified intra-agency and community resources appropriate for clients. Assisted clients and their families in communicating with schools, physicians, DHHR, and the legal system. Provided supportive counseling to clients and families. Used *Stop and Think* curriculum with clients to improve impulse control.

Supervisors: Colleen Smith, M.A., Licensed Psychologist, Mindy Wass, M.A

VOLUNTEER WORK

09/2005- 06/2010 Volunteer Victim Advocate
CONTACT Rape Crisis Center, Huntington, WV

Provide support and information to sexual assault survivors over the phone and face-to-face in hospital emergency rooms. Conducted QPR training for Fall 2008 volunteers. Coordinated April 2008 community outreach activities.

Supervisors: Holly Irvin, M.A., Sharon Pressman, M.A.

09/2006- 08/2008 Youth Violence Prevention Grant Steering Committee Member
Cabell County, WV

Provided psychoeducation about developmental assets and operationalization of variables during semi-annual grant application review meetings.

Supervisor: Francine Buchanan, M.S.W.

RESEARCH EXPERIENCE

05/2009- Present Dissertation Research
Marshall University Psychology Department, Huntington, WV

Examine whether the Theory of Planned Behavior predicts college students' intentions to seek help from campus mental health resources in the context of campus suicide prevention.

Committee: Martin Amerikaner, Ph.D., Wendy Williams, Ph.D., Paige Muellerleile, Ph.D.

01/2008- 03/2008 Analysis of Archival Data
Marshall University Psychology Department, Huntington, WV

Examined relationship between childhood trauma and health risk behaviors in young adulthood using data set collected for a study of health risk behaviors and suicidality.

Advisor: Thomas E. Ellis, Psy.D., ABPP

08/2006- 08/2008 Graduate Research Assistant
Marshall University Psychology Department, Huntington, WV

Completed a literature review of stigma and mental illness, co-authored manuscript. Completed a literature review of religiosity and condom use by young adults. Created matrix for meta-analysis.

Supervisors: Wendy Williams, Ph.D., Paige Muellerleile, Ph.D.

01/2005- 08/2005 Graduate Research Assistant
Pennsylvania State University Psych. Dept., University Park, PA

Co-authored a book chapter on the use of quasi-experimental designs in decision-making. Served as *New Directions for Evaluation* Student Editorial Board Member. Completed a literature review of policy and program evaluation methods. Co-created database of evaluation methods.

Advisor: Mel M. Mark, Ph.D.

08/2003- 05/2004 Research Practicum
Elizabethtown College, Elizabethtown, PA

Designed a study to test the hypothesis that more intelligent individuals are better able to recognize intelligence in others, based on findings from a study by Kruger & Dunning. Recruited participants, prepared materials, coded videotaped interviews, collected data, analyzed data using SPSS.

Advisor: John Ruscio, Ph.D.

01/2003- 05/2003 Research Practicum
Elizabethtown College, Elizabethtown, PA

Recruited clinical psychology graduate student participants, prepared materials, collected data, and analyzed data using SPSS for a study testing the hypothesis that clinical judgment in mental health diagnosis is not superior to using an algorithm. Co-authored a manuscript based on findings.

Advisor: John Ruscio, Ph.D.

08/2001- 12/2002 Undergraduate Research Assistant
Elizabethtown College Psychology Department, Elizabethtown, PA

Recruited undergraduate participants, prepared materials, provided lectures on Bayesian reasoning using four different techniques in order to test the hypothesis that using a 2X2 graphic representation increased participant understanding. Collected data and entered data using SPSS. For a study of the mere exposure effect in a normal geriatric population, recruited community member participants, prepared materials, used a tachistoscope to administer stimulus materials, and collected responses from participants.

Supervisors: John Ruscio, Ph.D., Catherine Craver-Lemley, Ph.D.

TEACHING EXPERIENCE

08/2007- 05/2009 Instructor
Marshall University Psychology Department, Huntington, WV

General Psychology (4 sections)

Participated in Marshall University *Safe Space* program to provide a "safe space" for LGBT students to be open about their sexual orientation.

Supervisors: Christopher LeGrow, Ph.D., Stephen Mewaldt, Ph.D.

08/2004- 12/2004 Teaching Assistant
Pennsylvania State University Psych. Dept., University Park, PA

Introduction to Psychology (1 section)
Social Psychological Perspectives on the Self (1 section)

Supervisors: Andrew Peck, Ph.D., Liz Pinel, Ph.D.

08/2002- 05/2004 Teaching Assistant
Elizabethtown College, Elizabethtown, PA

Research Methods and Statistics (4 sections)

Supervisor: John Ruscio, Ph.D

PUBLICATIONS

Williams, W.R., Pacheco, S., Schell, B., & **Mills, J.** (under review). "Building toward wellness:" Using contact theory and person-first language to combat mental health stigma. *The Journal of Applied Social Psychology.*

Mills, J. (2007). Kids afraid of the dark? Here's hope for them. *Behavior Analysis Digest, 18*(4), 15-16.

Mark, M.M. & **Mills, J.** (2007). The use of experiments and quasi-experiments in decision making. In G. Morcol (Ed.), *Handbook of Decision Making*. New York: Marcel Dekker.

PRESENTATIONS

Mills, J. (2009). *Constructing a theory of planned behavior questionnaire for predicting college students' intentions to seek help for emotional problems.* Presented at the semi-annual meeting of the West Virginia Psychological Association, Charleston, WV.

Mills, J., Ellis, T.E., & Selby, E.M. (2008) *Cognitive factors associated with sexual risk behaviors.* Presented at the annual meeting of the Academy for Behavioral and Cognitive Therapies, Orlando, FL.

Selby, E.M., Ellis, T.E., & **Mills, J.** (2008). *Cognitive and behavioral implications of parental health behaviors.* Presented at the annual meeting of the Academy for Behavioral and Cognitive Therapies, Orlando, FL.

Mills, J. & Ellis, T.E. (2008). *Religiosity, attitudes, and sexual risk behaviors of young adults.* Presented at the biennial meeting of the Society for the Psychological Study of Social Issues, Chicago, IL.

Ruscio, J., **Mills, J.**, & Skoniecki. S. (2004). *Forming impressions in semi-structured interviews: Does it take intelligence to recognize it in others?* Presented at the annual meeting of the Eastern Psychological Association, Washington, DC.