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Articles

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From the Editor

As the incoming editor, I have been excited by the number and type of submissions to our professional state journal. Over the past few months we have received many submissions from across the United States. It is delightful to have so many interested in writing for our state journal and to be able to provide the readership with these ideas and information. I have been pleased with the editorial board and would like to extend a heartfelt thank you to them in making the transition between editors smooth and efficient. The editorial board and I strive to provide insightful and innovative articles that our readers will find beneficial in their work with clients in diverse settings. The editorial board and I believe it is imperative to continue to provide information about issues facing counselors today. In this issue, the authors of the three articles presented provide thoughtful ideas suggestions for counselors working with these populations in the field. I believe you will find the information helpful in your work.

In the first article, Grande, Newmeyer, and Adair focus their study on the symptom differences among outpatient clients presenting with mood disorders. The authors used the SCL-90-R to determine if there are significant differences between men and women presenting with mood disorders at outpatient clinics. Grande, Newmeyer, and Adair found that gender differences in symptom presentation of mood disorders do exist but are not statistically significant.

Drs. Solmonson and Stewart present a discussion abut the impact of adult ADHD symptoms on maternal parenting behaviors. In this study, the authors qualitatively examine the struggles mothers have in managing parenting skills and responsibilities. Solmonson and Steward suggest several methods and interventions counselors may find helpful when working with mothers who experience difficulties with parenting because of adult ADHD symptoms.

Drs. House, Lynch, and Bane highlight an important issue facing counselors today: suicide prevention. Dr. House and her colleagues present an overview of a suicide prevention program used at a Northeastern university. Dr. House et al., found participants involved in the suicide prevention program were significantly more confident in their skills, more knowledgeable about working with suicidal clients, and better able to assess situations surrounding suicidal clients effectively.

Sincerely, Jennifer N. Bornsheuer-Boswell

Symptom Differences by Gender for Outpatient Clients as Measured by the SCL-90-R

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Abstract

It has been well accepted that women demonstrate a significantly higher prevalence for mood disorders than their male counterparts. This study included the administration of the Symptom-Checklist 90-Revised (SCL-90-R) over the course of a one-month period to a sample (n = 243) of females (66%) and males (34%) receiving treatment from an outpatient community mental health clinic. Descriptive statistics, a MANOVA, and subsequent ANOVAs revealed that women scored higher on every sub-scale of the SCL-90-R, except the psychoticism sub-scale, however, only the difference on the somatization sub-scale was statistically significant. Implications of these results for mental health providers are explored.

Symptom Differences by Gender for Outpatient Clients as Measured by the SCL-90-R

Researchers have discussed, postulated, and identified several mental health and general personality characteristic differences between the genders (Breslau & Anthony, 2007; Else-Quest, Hyde, Goldsmith, & Van Hulle, 2006; Gentile et al., 2009; Harkness et al., 2010; O'Hare 1995; Nordentoft & Branner, 2008), with most studies indicating that females have a higher prevalence of mood disorders than men (Eaton et al., 2011). While gender differences specific to various domains have been found across several populations, there are few studies that have attempted to examine gender differences across multiple domains of psychopathology in outpatient community mental health populations. Specifically, there is limited research that has attempted to determine

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whether or not male and female outpatient clients significantly differ in regard to the presence and severity of common psychopathological symptoms and how participant cooperation in assessment may skew data and subsequent analysis.

Several studies have found that gender differences are evident across various psychopathologies and personality features. Some of these studies have demonstrated low to moderate etiological and epidemiological differences between men and women (Gentile et al., 2009; Hovanitz & Kozora, 1989; Kessler, 2003; Nordentoft & Branner, 2008). Some of these findings indicated that women are at a greater risk for developing various disorders, and for specific disorders, demonstrated significantly higher prevalence (Breslau & Anthony, 2007; Eaton et al., 2011; Olff et al., 2007). The gender differences research encompasses a variety of psychopathologies with subtleties in presentation of these disorders as well as their etiologies.

Gender differences have been researched in domains such as self-esteem (Gentile et al., 2009), posttraumatic stress disorder (PTSD; Breslau & Anthony, 2007; Olff et al., 2007), temperament (Else-Quest et al., 2006), major depressive disorder (MDD; Harkness et al., 2010; Hiott et al., 2006), co-occurring disorders (O'Hare, 1995), suicidality (Nordentoft & Branner, 2008), as well as several other characteristics. While several disorders that indicate major gender differences have been clearly identified in the research (e.g., depression; Harkness et al., 2010; Kessler, 2003), some of the disorders indicate only mild to moderate differences between genders including (a) suicidality (Harriss, Hawton, & Zahl, 2005; Hawton, 2000), (b) PTSD (Breslau & Anthony, 2007; Olff et al., 2007; Perkonigg, Kessler, Storz, & Wittchen, 2000), (c) Borderline Personality Disorder (Kaehler & Freyd, 2011, Levy, 2005), and (d) co-occurring disorders (Helzer & Pryzbeck, 1988; Wilsnack & Wilsnack, 1991). While several studies related to gender differences and pathology have been useful, some findings lack practical applicability to mental health clinicians who seek methods and techniques to appropriately address cultural and pathological differences between men and women. Studies directly tied to the pathology and symptomatology differences between the genders appear to offer the most value to the practicing mental health clinician.

Suicidality and Depression

One of the more serious issues facing mental health clients and treatment professionals is suicidality. Clear gender differences have been identified in this domain and a paradox has been identified. Specifically, more men commit suicide but more women attempt suicide (Hawton, 2000). Low suicidal intent has been found to be positively correlated with a low risk of repeated suicide attempts in women, whereas a low suicidal intent for men appears to be associated with a higher risk for future suicide attempts (Harriss, Hawton, & Zahl, 2005). In a 2008 study of suicide attempters (n = 351), Nordentoft and Branner found that women who attempted suicide had less suicidal intention, lower self-esteem, and higher depression levels than their male counterparts. In examining more extensively the research on depression researchers have found significant differences between men and women regarding the prevalence of MDD as well as its etiology (Easton et al., 2011; Kessler, 2003).

Higher prevalence rates of MDD for women are first evident in adolescence and continue through the end of life (Kessler, 2003). In an effort to explain these gender differences related to depression, Harkness et al. (2010) examined the role of severe and stressful life events and their association with the onset of depression in both men and women. Their study indicated a significant increase in the risk of depression for women that reported a severe and stressful life event in young adulthood (18 – 29), but failed to find significance in any other age category (Harkness et al. 2010). These findings indicate that there is a critical period for women (young adulthood), during which a severe and stressful life event can increase their risk for depression, while men in the same cohort do not experience that increased risk (Harkness et al. 2010).

Posttraumatic Stress Disorder

Several studies have shown that epidemiological factors for PTSD are different for women than they are for men. After an episode of assaultive violence, women have been found to be at a greater risk to develop PTSD than men (Breslau & Anthony, 2007). Olff, Langeland, Draijer, and Gersons (2007) noted evidence that suggested several factors may contribute to women's higher risk of developing PTSD including (a) higher levels of substance abuse following trauma-related incidents; (b) age of a female when the trauma occurred; (c) violent trauma, especially of a sexual nature; (d) insufficient support systems; and (e) a pronounced perception of a loss of control. Researcher findings have indicated that men are exposed to more traumas than women, yet women have a higher risk of developing PTSD (Perkonigg, Kessler, Storz, & Wittchen, 2000), therefore it is not the number of trauma exposures that explains women's higher risk for PTSD. Further, Breslau and Anthony (2007) found that women who have been exposed to an episode of assaultive violence are at greater risk to develop PTSD if they experience a non-assaultive subsequent episode, whereas this increased risk was not identified in men.

Borderline

The prevalence rate for Borderline Personality Disorder (BPD) in the outpatient population is 10%, and 75% of individuals diagnosed with BPD are female (American Psychological Association, 2000). Levy (2005) found the association between insecure attachment styles and risk of developing BPD. In a study examining the potential effects of betrayal trauma and how these effects may differ by gender, Kaehler and Freyd (2011) identified gender differences between the level of betrayal trauma and the risk of developing BPD. Their findings suggested that low, medium, and high levels of betrayal trauma were predictors of BPD in men, however, only medium and high levels of betrayal trauma predicted BPD in women (Kaehler & Freyd, 2011).

Co-occurring Disorders

On average, men are more likely to suffer from alcohol dependence and abuse as well as the corresponding symptoms (O'Hare, 1995, Wilsnack &

Wilsnack, 1991), however women who abuse alcohol are more likely to suffer from a co-morbid mental health condition (Eaton et al., 2011; Helzer & Pryzbeck, 1988). Using a sample of outpatient clients (*n* = 376), O'Hare (1995) found not only did men consume more alcohol than women, but were also more likely to have had problems related to an alcohol-related disorder within the last year, and were more likely to have received prior treatment for substance abuse. This study also found that the level of alcohol consumption, for both genders, was positively correlated with physical health problems and psychophysiological symptoms (O'Hare, 1995). The findings revealed some evidence of gender differences related to primary complaints by gender (males were more likely to complain of legal and physical health problems), but both men and women bore greater risks of pathology, including depression and anxiety, as drinking increased (O'Hare, 1995).

Other Factors

Several other factors, including internalization versus externalization (Eaton et al., 2011), self-esteem (Gentile et al., 2009), and coping styles (Hovanitz & Kozora, 1989) have been identified as relating to men and women differently. Eaton et al. (2011) found a higher prevalence of internalizing in females and a higher prevalence of externalizing in males. Further, Eaton et al. (2011) found statistically significant higher lifetime prevalence for depression, anxiety, panic, and phobia in females. Culture also plays a role in how the pathology of depression evolves differently for men and women. Hiott et al. (2006) found that within the immigrant Latino population depression level of females is heavily influenced by family-related factors, while the depression level of males is associated with their ability to earn income and maintain stable employment (Hiott et al., 2006; Magaña & Hovey, 2003).

In the current study, a sample from the outpatient mental health clients at a Mid-Atlantic community mental health clinic was assessed with the Symptom-Checklist 90-Revised (SCL-90-R). The object was to identify if there were any significant differences between the genders on any of the sub-scales of the measure. Prior research has shown that the the raw scores on the SCL-90-R for women were often higher than the men (Johnson, Ellison & Heikkinen, 1989). It was hypothesized, based on this and other prior research, that women would demonstrate a higher prevalence of symptoms consistent with depression, somatization, and anxiety (Johnson et al., 1989).

Method

Participants

The participants for this study were outpatient mental health clients being treated by a community mental health agency in the Mid-Atlantic Region of the United States. A battery of assessments, including the SCL-90-R, was administered to every client that came in for specified mental health services during the month of July, 2011, except for those clients that refused to take the battery or those who were incapable. Of the total number of admitted clients (*n* = 603) at the beginning of July, 2011, approximately half (*n* = 352) attended at least one individual or group mental health treatment session. In review of these

clients, the majority signed the informed consent and properly completed the battery (*n* = 243), however, a few clients were deemed incapable of completing the battery (*n* = 12), several clients refused (*n* = 67), and several participants' scores had to be discarded because they did not complete the assessment battery properly (*n* = 30). Of the participants who successfully completed the assessment battery, females (*n* = 161) outnumbered males (*n* = 82) by a ratio of almost two to one. Females represented a larger percentage (58%) of those who refused to take the assessment than males (42%). The average age of the participants was 42. No ethnic or cultural data was collected from the participants.

After consulting with the therapists and reviewing the charts for those who refused to participate in the study or who were not able to properly complete the assessment battery, it was determined that about 40 of the clients who refused and about 20 who failed to properly complete the assessment battery suffered from psychosis, paranoia, or personality disorders. This indicated that this segment of the outpatient mental health population was not well captured by this study and other researchers trying to measure psychometric traits in this population may experience similar problems.

The community mental health agency, from which the sample is drawn, provides services to a wide variety of clients who present with diverse pathology. Common client profiles included pathological elements such as Bipolar Disorder, Depression, Anxiety, Panic, Addiction and Schizophrenia. The agency placed an emphasis on the treatment of co-occurring mental health and substance abuse disorders, and these disorders were overrepresented in the client population. Axis IV elements that were often observed in this setting were the following: (a) low or no income, (b) no employment, (c) housing problems, (d) poor social skills, (e) legal trouble, (f) limited support from family or friends, (g) and low educational level.

Procedure

As part of a broader study, an assessment battery, including the SCL-90-R, and an informed consent were assembled. Institutional research board (IRB) approval was obtained from both Regent University and the community mental health clinic. The assessment battery was administered to those participants who were capable of taking the assessment battery and who did not refuse. The administration was typically executed prior to the clients' attendance of an individual therapy, group therapy, psychiatric, or case management appointment. The clients were not compensated in any manner for their participation in the study.

Measures

The SCL-90-R is a 90-item self-report instrument designed to assess mental health symptoms across nine sub-scales, which are generally associated with mental health pathology, and three global scales (Derogatis, 1992). The nine sub-scales of the SCL-90-R include (a) Somatization, (b) Obsessive Compulsive, (c) Interpersonal Sensitivity, (d) Depression, (e) Anxiety, (f) Hostility, (g) Phobic Anxiety, (h) Paranoid Ideation, and (i) Psychoticism (Derogatis,

1992). The three global scales are the Global Severity Index (GSI), Positive Symptom Distress Index (PSDI), and the Positive Symptom Total (PST; Derogatis, 1992). Respondents are asked to rate the severity of their symptoms on a scale of 0 to 4 (Derogatis, 1992). The instrument has been found to have high construct validity as well as high concurrent validity with similar instruments (Derogatis & Cleary, 1977).

Analysis

Multivariate analysis of variance (MANOVA) and univariate analysis of variance (ANOVA) were conducted to identify any differences between the male and female participants' scores. Box's test, Levene's test, Pillia's Trace, and effect sizes were calculated. Descriptive statistics, including means, standard deviations, and correlation matrices were calculated for the raw scores on the nine SCL-90-R sub-scales.

Results

In an effort to reveal any gender differences a MANOVA was conducted on the nine subscales of the SCL-90-R. Box's test was significant [$F(45, 92720) = 2.47$, $p < .001$], indicating the covariance matrices of the dependent variables were not equal across groups. In light of the significant Box's test, Pillai's Trace was selected over Wilk's Λ. Pillia's Trace indicated there was a significant difference between the genders, however, the effect size of gender was small, Pillia's Trace = .11, $F(9, 233) = 3.21$, $p < .001$, $\eta_p^2 = .11$. Subsequent to the MANOVA, univariate ANOVA's were conducted on the nine subscales. To correct for an elevated risk of a Type I Error, the Bonferroni method was applied and the alpha value was set to .005 (.05 divided by 9). A significant gender difference was identified for only the somatization scale, and the effect size of gender was very small, $F(1, 241) = 9.58$, $p < .005$, $\eta_p^2 = .04$. Further, the Levene's test for the somatization scale was significant, indicating that the error variance of the dependent variable was not homogeneous, $F(1, 241) = 12.52$, $p < .001$.

Descriptive statistics were calculated for each of the nine sub-scales and divided by gender. Women demonstrated a higher mean raw score on eight of the nine sub-scales of the SCL-90-R (Somatization, Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation), with Psychoticism being the only sub-scale on which men scored higher.

Discussion

The findings of this study suggest that gender differences among outpatient mental health clients exist, but these differences are generally not statistically significant. These findings are not completely consistent with other much larger studies (see Eaton et al., 2011), as the results of this study indicate a higher prevalence of certain mental health symptoms in females, but not one that demonstrates a statistically significant difference as compared to male

prevalence, with the exception of the somatization sub-scale. Female outpatient clients were found to have a higher prevalence of mood disorder related symptoms than their male counterparts. Generally this difference, however, was not pronounced enough to accept the hypothesis that outpatient females would demonstrate a significantly higher prevalence for symptoms associated with depression, somatization, and anxiety. The findings on the somatization scale were significant, but the effect size of gender was small. The results for the remaining nine sub-scales of the SCL-90-R (i.e., Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism) indicated no statistically significant differences by gender, however, the mean raw scores for females were higher than male scores on eight sub-scales, which was consistent with the findings from Johnson et al. (1989).

The progression and execution of the study revealed that research in a pure clinical outpatient environment, particularly an outpatient community mental health clinic, may present inherent challenges to researchers. Approximately 31% of the intended sample was excluded for refusal to participate (19%), incapability to participate (3%), and improper completion of the SCL-90-R (9%). While it is unclear if obtaining the missing 31% of the expected participants would have altered the findings as they related to gender, it appears likely that these missing participants contributed to some level of distortion in the findings. Research on how to better capture data in the outpatient community mental health population is needed, otherwise valuable quantitative data and subsequent analyses will not be available to mental health providers.

Implications for the Treatment Community

Two distinct implications surfaced as a result of this study: (a) Female outpatients were shown to have a higher prevalence of mental health symptoms than males (although largely not a significant difference); and (b) psychopathological measurement difficulties on the outpatient population may result in the exclusion of severe cases. While many other studies have found statistically significant gender differences in regard to psychopathology and other personality characteristics (Eaton et al., 2011, Gentile et al., 2009; O'Hare, 1995), this study only found a significant difference on the somatization sub-scale of the SCL-90-R. This notwithstanding, the results of this study were consistent with other studies that indicated a slightly higher prevalence of female psychopathology. However, more research is indicated to explore the incongruence between this study's findings and those studies that found significant differences between the prevalence of male and female psychopathology. Another unexpected result of this study was the detection of higher prevalence for female mental health symptoms on a wide variety of sub-scales, some of which were not predicted in the hypothesis, including hostility and paranoid ideation.

The use of caution when designing gender-specific treatment strategies or agency policies is warranted based not only on the SCL-90-R results, but also results from the Minnesota Multiphasic Personality Inventory-2 (MMPI-2). Limited gender differences were identified by Ben-Porath and Forbey (as cited in Graham, 2006) using the MMPI-2, as they noted that the use MMPI-2 gender

or non-gender scoring would not affect interpretations of the results. Both the SCL-90-R and the MMPI-2 are highly regarded instruments, yet they have not detected the gender differences reported in many studies using other assessments. Perhaps these two instruments are not sensitive to gender differences or these differences are small. Under either scenario, this lack of certainty regarding the presence or absence of gender differences should be considered when agencies set treatment policies based on gender. Any mental health treatment, screening process, assessment procedure, or general agency policy that is dependent solely on gender may not reflect a true difference between males and females, and therefore may have limited or no utility.

Limitations

This study had a sufficient total sample size (n = 243) from which to draw conclusions, however, the intended sample (n = 352) was much larger. Given that the missing participants likely suffered from severe disorders, there is a distinct possibility that important data was not captured. Other anomalies, such as a significant Box's test for the MANOVA and a significant Levene's test for the somatization sub-scale during the ANOVA, question the validity of the results. Further, twice as many women than men participated in the study.

The measure used in this study (SCL-90-R) has limitations that could have adversely affected the data. The SCL-90-R does not contain a mechanism for detecting response distortions, which would have been helpful based on the fair number of improperly completed measures. While the SCL-90-R is a widely-used instrument for measuring dimensions of psychopathology, serious questions have been raised regarding its factor structure and validity. Numerous studies have found that many of the variables in the nine SCL-90-R sub-scales load onto the same factor, and this factor explained a large portion of the variance, making the instrument more suitable as a general measure of psychological distress and not appropriate to distinguish between specific psychopathological dimensions (Brophy, Norvel, & Kiluk, 1988; Clark & Friedman, 1983; Cyr, McKenna-Foley, & Peacock, 1985; Rauter, Leonard, & Swett, 1996; Strauman & Wetzler, 1992). The single factor loading result was found when the assessment was administered to outpatient clinic clients (Brophy, Norvel, & Kiluk, 1988, Clark & Friedman, 1983), inpatient clients (Rauter, Leonard, & Swett, 1996), and a mixed sample taken from a large medical center (Strauman & Wetzler, 1992). The findings regarding the factor structure of the SCL-90-R call into question the validity and applicability of this study's results regarding gender differences by sub-scale.

The measurement challenges for the outpatient population, including the possible underrepresentation of severe psychopathology, likely contributed to skewed data and subsequently less valid results. This assessment difficulty, which is likely shared by many outpatient mental health clinics, poses a potential challenge in the development of appropriate or effective treatment protocols for the severely mentally ill segment of the outpatient community mental health population. Most at risk for poor or no measurement were those suffering from psychosis, personality disorders, and substance abuse.

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The Impact of Adult Attention Deficit Hyperactivity Disorder Symptoms on Maternal Parenting Behaviors

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Abstract

The purpose of this qualitative research project is to examine the impact of maternal ADHD symptoms on managing the responsibilities related to parenting. The primary researcher conducted three interviews with mothers who exhibit ADHD symptoms in order to gain insight into their perceived difficulties related to the disorder. Analysis of the data indicates these mothers have difficulty completing tasks, are disorganized, and are easily overwhelmed with the responsibilities of parenting resulting in difficulty managing their own behavior and being consistent in disciplining their children. Due to these areas of deficiency, it is suggested the presence of maternal ADHD symptoms results in less than optimal parenting behaviors, which could result in negative outcomes for children.

Attention Deficit Hyperactivity Disorder is a condition that was once believed to only affect children. It was commonly believed that with further brain development and as hormonal or developmental changes occurred, most children would outgrow the condition during adolescence. However, during the last decade, research on the condition has established credibility and acceptance of the disorder in adults, and it is now recognized as a life long disorder (Elliott, 2002; Faraone & Antshel, 2008; Young, 2002). A 2003 survey by the Attention Deficit Disorder Association (ADDA) indicates that approximately eight million adults suffer from the disorder, with the majority of the patients being undiagnosed.

The keystone features of Attention Deficit Hyperactivity Disorder (ADHD) are inattention, impulsivity, and hyperactivity (American Psychiatric Association, 2000). While these are not the only symptoms of ADHD, they are the ones that are utilized as specifiers in the Diagnostic and Statistical Manual of Mental Disorders 5 (APA, 2013). The symptoms of ADHD can result in impairment in several areas of the individual's life, including difficulty in organization,

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time management, task completion, and concentration. In addition, the individual may also suffer from low self-esteem, mood swings, increased frustration, academic or vocational failure, or lack of ambition (Waite, 2007). Individuals with ADHD are more at risk of developing secondary depression, anxiety, social phobias, eating disorders, substance abuse, and have increased health care utilization (Goodman, 2007; Taylor & Keltner, 2002). Because these symptoms have been misunderstood in the past, individuals who suffer from ADHD may have been considered to be lazy or unmotivated, have low intelligence, or simply be a delinquent.

Over the past two decades, tremendous strides have been made in understanding ADHD, improving treatment options, and recognizing the presence of adult symptomology. Researchers have identified the prevalence of ADHD in the adult population to be roughly 3%, despite gender (Faraone & Biederman, 2005). However, the results from the previously referenced ADDA survey (2003) estimates that only about 25% of adults with ADHD are actually receiving treatment. Research findings (Faraone & Biederman, 2005; Minde et al., 2003; Murphy & Barkley, 1996; Murphy, Barkley, & Bush, 2002) indicate that adults with ADHD have more academic concerns, family problems, marital breakups, a more unstable work record, more car accidents, and more interpersonal problems than non-ADHD adults. Adults with ADHD often have difficulty managing their own lives; yet, often do not discuss their difficulties (Elliott, 2002; McMillen, 2002; Waite, 2007; Young, 2002). So, what happens when the responsibility of parenting requires the management of others?

Inherent in the responsibilities of parenting is the ability to be attentive to the needs of a child. In addition, parenting calls for organization and structuring the life of a child (Weiss, Hechtman & Weiss, 2000). The responsibility of parenting can be stressful for individuals without ADHD (Nadeau, 2004). The inability to effectively attend to parental obligations impacts child development negatively (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Cunningham, 2007; Dwivedi & Banhatti, 2005; Leverton, 2003). When combined with the psychopathology of ADHD, parenting behaviors can become dysfunctional. The presence of parental ADHD is a predictor for higher levels of family conflict and lesser levels of family cohesion (Biederman, Faraone, & Monteaux, 2002). This same study suggests that non-ADHD children can suffer from ADHD-related dysfunction as a result of exposure to the ADHD parent, including a negative impact on school performance. ADHD symptoms can result in a more chaotic family environment and have a detrimental effect on children (Biederman, et al).

Impact of ADHD on Women

Several literature sources suggest that women report greater impact from ADHD symptoms than do men (Robison, et al, 2008; Additudemag.com, 2002; Seay, 2001). Robison, et al (2008) studied 515 adults with ADHD, of which thirty-four percent were women. The women reported higher levels of impairment on every measure that was administered. The measures included the Conners' Adult ADHD Rating Scale, the Wender-Reimherr Adult Attention Deficit Disorder Scale, the Hamilton Rating Scale for Anxiety, and the Hamilton

Rating Scale for Depression. The women also reported higher levels of sleep disturbance, mood volatility, emotional over-reaction, and poor temper control. These same authors claim that previous statistics reporting a higher prevalence of ADHD in males is most likely due to the lack of detection of the disorder or misdiagnosis in females.

Nadeau (2004), a national recognized specialist in ADHD, identifies the additional stress women have in dealing with the demands of their daily life and ADHD. Nadeau describes the responsibility faced by women who are often the primary caretaker of the home and the family. It is a role that requires simultaneous functioning in multiple roles, with numerous interruptions, no imposed structure, and little support or encouragement. Mothers are frequently the scheduler, record keeper, and household manager of the family. Fathers may assist in household and parenting duties, but mothers are often the one to determine and direct what needs to be done. Many women hold these responsibilities while also working full time outside the home. The responsibility involved in the management of a household can be a source of stress. The additional expectations of the responsibilities involved in parenting can compound the level of stress experienced by mothers.

ADHD and Parenting

The tasks of parenting are synonymous with organization and management. Parents with ADHD report difficulty in organizing and managing their homes, their children, and their finances (Weiss & Murray, 2003). In addition, Murray & Johnston (2006) suggested these parents have shown a lower capacity to attend to child behavior. For an individual who is deficient in these areas, parenting may be another experience in failure. Abidin (1992) stated "…the richness or paucity of resources available naturally plays a role in the ultimate parenting behavior" (p. 410). He goes on to hypothesize that "parenting behavior and child adjustment are influenced by a number of sociological, environmental, behavioral, and developmental variables" (p.410). Abidin suggests a parenting model in which those variables influence the personality of the parent related to the parenting role. The parenting role is shaped through cognitions and beliefs related to self-expectations and the internal working model of self the parent has developed. In connecting this model to the research on adults with ADHD, the issues of low self-esteem, increased frustration, higher incidence of failure, and increased interpersonal problems, a parent with ADHD may perceive he or she has fewer resources available to assist in effective parenting and the associated responsibilities.

There is a significant amount of research indicating the specific parenting behaviors that are associated with positive and negative outcomes in children (Baumrind, 1966; Baumrind, 1996; Darling, 1999; Solmonson, 1993; Sonuga-Barke, Daley, & Thompson, 2002). Research by McKee (2002) suggests that one of the strongest predictors of problematic parenting is parent psychopathology. Murray and Johnston (2006) found that ADHD behaviors in mothers' negatively impacted their ability to monitor the behavior of their children, which resulted in less consistency in their parenting. Due to symptoms of the disorder, ADHD parents are more likely to struggle with parenting behaviors associated

with more positive outcomes that can have a significant influence on child development (Collins et al., 2000; Weiss, Hechtman, & Weiss, 2000).

Purpose and Significance of the Study

The purpose of this study was to examine the impact of maternal ADHD symptoms on parenting behaviors. Given empirical evidence of Adult ADHD symptoms negatively impacting parenting behaviors, professional awareness will be increased to consider the inclusion of monitoring children for ADHD-related dysfunction as a part of the treatment protocol of the ADHD parent. In addition, it will provide insight into the need for treatment compliance of ADHD parents in order to foster optimal developmental outcomes in children.

Method

Participants

Three mothers who consistently display symptoms of ADHD comprised the study sample. All three mothers were chosen through a purposeful sampling method. The mothers were identified through professional referrals after inquiries by the primary researcher. The ages of the mothers range from 36 to 48. There are seven children among the three mothers, ranging in age from 4 to 17. One of the mothers is a non-working mother, one works for a school district in a paraprofessional position, and the third is a teacher. All three are in the middle to upper income bracket. One of the mothers has a college degree. The other two have attended college, but did not receive a degree. Two of the mothers are professionally diagnosed and are receiving pharmacological treatment for the disorder. The third mother was not officially diagnosed with the disorder, but her symptoms were recognized after her youngest son was diagnosed with ADHD. This mother has not received professional treatment, but consults with the professional treating her son as a part of his treatment protocol.

Research Design

The use of qualitative inquiry was well suited for this study given that the purpose of phenomenology is to focus on the essence of the participants' personal experiences and to provide detailed description of it (Creswell, 2014). The analysis of this investigation was derivative based on the guidelines of Moustakas (1994), involving several components: collecting verbal exchanges that described the experience; examining transcripts carefully to get a sense of the whole; identifying statements of significance; eliminating irrelevant repetition; classify crucial themes; and integrating these meanings into a single description (Creswell, 2014).

The collection of verbal data from the selected participants began the process of exploring their lived experiences as related to their parenting struggles associated with the symptoms of ADHD. Literature can describe the symptoms of a disorder. However, an analysis of data gathered through the interviews offered a personal perspective on the essence of being a mother with

ADHD and the difficulties associated with the disorder.

The interview questions were written by the primary researcher to gather data regarding the history of ADHD symptoms and treatment, educational experience, and impact on personal development. In addition, questions sought to provide the personal perspective of the individual in regards to difficulty in parenting. The interview questions were open-ended and developed in an attempt to prevent interviewer bias or manipulation. The content of the questions focused on the following topics: early indications of symptoms, identification and treatment history, educational experiences, developmental impact of symptoms (self-esteem, interpersonal relationships), job history and performance, historical and current struggles in personal management, historical and current struggles in household management, and struggles with parenting responsibilities. Professional peers reviewed the questions to ensure the focus on the symptoms of the disorder, as well as the behaviors that resulted as a manifestation of the symptoms. Data collection was done through an interview process. Each individual was interviewed individually in an agreed upon location. After an initial analysis of the data, two of the subjects were contacted for follow-up questions.

Data Analysis

The primary researcher reviewed the transcripts from the interviews and reduced them to significant statements and descriptions to determine categories for coding. This was done by carefully reading through the data and identifying statements of magnitude and/or shared experiences. Units of meaningful information were clustered together to create central themes. Completion of the analysis involved providing a description of the integration of participant experiences, textual descriptions, and individual structural descriptions (Creswell, 1998; Creswell, Hanson, Clark, & Morales, 2007). Due to previous research that provides information regarding ADHD symptomology, the manifestation of those symptoms in parenting behaviors was the focus on the research. Preliminary analysis of the data looked for commonalities in the overall experience of the individuals, rather than on focusing on the subject of parenting. Once an understanding of the experience of the disorder was garnered, the impact on parenting behaviors was examined.

The categories of coding were determined by the primary researcher based upon research questions including managerial responsibilities, management of own behavior, and management of the behavior of children. Specific coding categories included diagnosis, treatment, effects of treatment, symptomology, coping skills, school experiences, impact on development, work experience, management of self, management of children, management of household, management of parenting responsibilities, dealing with ADHD in their child, and behavioral observations during the interview. The information was categorized into early experiences, description of symptoms, treatment, coping skills, management of the home and family, management of self, impact on parenting, family response to symptoms, and having a child with ADHD.

Trustworthiness in qualitative research is key in determining accuracy (Creswell & Miller, 2000). Validity checks were used throughout the process of the study so that integrity of the findings remained consistent. Because the

questions were asking subjects to describe their personal experiences, the responses were descriptive in nature. Using three subjects provided for investigator triangulation to determine if the experiences of the mothers were similar.

Results and Discussion

Abidin (1992) suggests a parenting model in which personal variables influence the personality of the parent related to the parenting role. That personality is developed based upon experiences early in life. Knowledge related to the overall development of the three mothers assists in understanding the shaping of their personalities. The parenting role is shaped through cognitions and beliefs related to self-expectations and the internal working model of self. The symptoms of ADHD result in behaviors that are likely to influence an individual's sense of self as identified in the interviews with the mothers.

Early experiences

All three subjects described early experiences with learning difficulties and an awareness that they were different from peers. None of the subjects understood the symptoms of ADHD until they reached adulthood, and could not understand the reason for their struggles. All three also identified a negative impact of their early struggles on their self-esteem. All three described themselves as very social and enjoying being around people. All three also laughed and joked about the struggles they have experienced. Only one of the mothers identified her jovial nature as developing in order to divert attention from her perceived inadequacies.

Description of symptoms

There were common descriptions of the experience with ADHD symptoms. All three described difficulty with task completion, being disorganized, and easily distracted or sidetracked. In addition, all three discussed being forgetful and frequently being late. Feeling overwhelmed is a common occurrence among the women. One also described increased feelings of anxiety, and one mother deals with depression related to the disorder. However, although she labeled her symptoms as depression, her description was more synonymous with anxiety.

During the interviews, two of the mothers displayed hyperactive symptoms. The researchers also observed distractibility and disorganized thoughts during the interview. All three tended to deviate from the question being asked, but two of the mothers were very difficult to keep focused. They would begin to answer the question and then switch to another topic. They may or may not return to the question without redirection.

All three mothers also discussed being very easily bored. They had all three changed jobs frequently until they found a position that offered variety in

daily tasks. Jobs that required routine or involved repetition of mundane tasks were unsatisfying, and they looked for something that provided a daily challenge. None of the three had been successful in desk jobs.

Treatment

Only two of the mothers are currently being treated for ADHD, and both take Adderall. They agreed that medication has made a tremendous difference in their functioning and has improved their quality of life. One mother describes being able to sit still and relax while reading to her children. Prior to medication, this was difficult for her and she could not enjoy it due to focusing on other things she should be doing. Both stated they are able to get tasks accomplished and feel less overwhelmed by daily demands.

Coping Skills

In order to manage the symptoms of ADHD, each of the mothers uses coping skills they have learned to assist in being more successful in completion of daily tasks. All three stated they must use some kind of a list in order to remember what needs to be done. Two of the mothers use a calendar and keep it with them at all times. The oldest mother uses sticky notes that she puts on her clothing when she leaves the house in order to remember errands she needs to run. She also uses sticky notes in her home. Two of the mothers talked about having to plan things in advance. The youngest mother is obsessive about planning, to the point that she is often unable to relax because she is constantly going over in her head what needs to be done. She does this out of fear of forgetting. Hyper-focusing was also a common method of task completion. One mother described not allowing herself to think about anything else because of a fear of not finishing something. As a result, she often forgot other things, including meetings, appointments, and picking up her children from activities. This same mother acknowledged the negative coping skill of avoidance when tasks seem too large and she becomes overwhelmed.

Management of Home and Family

Research indicates that many adult women who suffer from ADHD have a difficult time managing their home and related responsibilities (Taylor & Keltner, 2002). All three of the mothers interviewed supported this in their own personal experiences. They described household tasks as overwhelming and difficult to complete. It was common to spend a significant amount of time working, but see little progress from their efforts. They described beginning one task and being distracted by another. They often would start several tasks and not get anything completed. They also described their homes as unorganized. One of the mothers will only allow very close friends and family into her home because the clutter in her home embarrasses her. The youngest mother has a nanny who takes care of all household tasks because she was unable to manage it without help.

Two of the mothers stated they have difficulty establishing a routine, which they realize is difficult for their children. The third mother stated that she works very hard to maintain a routine because she realizes how important it is for her children. The oldest mother describes years of struggling to maintain her home because of her symptoms. She has recently found a website that has provided information on household management for women with ADHD. By utilizing the ideas and skills on the website, she has found it much easier to manage her home.

Management of self

Due to symptoms of impulsivity, it would be expected that an individual might struggle to maintain composure in times of stress. All three mothers supported this theory. They described being easily frustrated or angered when dealing with stressful situations, especially in regards to their children. One mother described feeling out of control and having to apologize to her children for things she has said. Two of the mothers were aware that when they become frustrated with themselves, they take it out on their children.

Impact on Parenting

All three mothers also supported research indicating the symptoms of ADHD impact their parenting behaviors. Two of the mothers described difficulty being consistent with their children, not only in disciplining, but also in establishing routines for them. The youngest mother realizes that she is impatient with her children and less tolerant of misbehavior.

They recognize that forgetting and being late also impacts their children. One mother admitted that she has forgotten to pick up her children on numerous occasions. She has also forgotten to do things she has told her children she would do. She described a recent situation in which she forgot to give her son lunch money, and even after he called her from school to remind her, she forgot again. He missed half of his lunch period waiting for her in the school office and had to make a second phone call to remind her. She stated that she frequently get calls from her children asking where she is because she has forgotten to pick them up or is late. She has given each of her children a cell phone so that they will be able to call her when she forgets. This same mother stated that she will discipline her children by removing privileges, and then forget and give them permission to do something from which they have been grounded.

All three expressed a true enjoyment from the experience of motherhood. When asked what they most enjoyed about being a parent, all three gave the same reply. They enjoy their children and who they are as individuals. They all stated they enjoy spending time with and participating in activities with their children. One mother finds it hard to interrupt activities they are enjoying in order to take care of other tasks. This contributes to being late to other commitments, not getting household tasks completed, or dinner being late.

Family Response to Symptoms

It would stand to reason that family members might be impacted by the symptoms of the disorder. Two of the mothers recognize their family's frustration as a result of their symptoms. They discussed their spouse being intolerant or frustrated at times, as well as their children. The mother with the oldest child has been criticized by her son for not being consistent in dealing with both children. He believes it is unfair when both boys are not held to the same standards. The youngest mother is divorced and believes her symptoms contributed to her divorce. She does not see the same level of distress in her children as described by the other two mothers. However, her children are only 4 and 6 years old, which she attributes to the difference reported by the mothers of the older children.

Children with ADHD

Due to the research regarding the genetic impact of the disorder, it would be predicted that ADHD would be present among the seven children. Each of the mothers has one child that has been diagnosed and is being treated. Two of the mothers recognized her own symptoms after her child was diagnosed. All three expressed a fear of their child repeating their own personal history of struggling. The fear was evident as two of the mothers became tearful when discussing this subject. They also acknowledged being sympathetic and understanding the difficulties experienced by the children. Two of the mothers become frustrated in trying to help their child because they do not feel as if they are able to manage their own disorder. The youngest mother articulated the most beneficial coping skills in managing her own symptoms and believes she is able to help her child begin to develop those same skills.

Conclusions

The purpose of this study was to examine the impact of Adult ADHD symptoms on parenting behaviors. The results of this study clearly indicate that mothers with ADHD have a difficult time in managing the responsibilities associated with parenting. The difficulties are in the area of household management, controlling their own behavior, and being consistent in dealing with their children. The development of coping skills to manage symptoms of the disorder appears to have a positive impact; however, the subjects perceive they still struggle more than mothers without ADHD. Their perception is that mothers without ADHD are naturally able to do the things that ADHD mothers have to work hard to accomplish. All three mothers have the perception that their disorder has a detrimental impact on their children.

Researchers indicate that establishing a routine and being consistent results in more positive outcomes in children (Baumrind, 1966; Baumrind, 1996; Darling, 1999; Solmonson, 1993). All three mothers identified having difficulty in these areas. In addition, being late and forgetful was also an issue. These areas of deficiency may result in the children being unable to feel secure that their mother will be reliable and consistent. Solmonson (1993) concluded that even

when parenting behaviors were less desirable, if there was consistency in the parenting style, children were more likely to exhibit positive behavioral traits. Given the identified struggles of the subjects, it would appear that the symptoms of ADHD result in less than optimal parenting behaviors. Replication of this study with a larger, more diverse population would allow for a better understanding of the struggles of mothers with ADHD and the ability to generalize the results.

Implications for Practice and Future Research

The increased understanding of the difficulties involved in parenting for mothers with ADHD has several implications for treating the disorder. The two mothers who are receiving pharmacotherapy both indicated a reduction in symptoms while medicated. This would offer support for the need for medication compliance as a component of managing the disorder. In addition, all three mothers discussed learning skills and behaviors that minimize the impact of their symptoms. Behavioral therapy and psychoeducational work is warranted to assist individuals in managing their symptoms. Monitoring children for indications of ADHD-related dysfunction is also warranted. In addition, educating mothers with ADHD about parenting behaviors that result in positive outcomes in their children may result in increased motivation to actively engage in therapeutic interventions.

Further research in this area is warranted to generalize the findings to a larger population. It would also be interesting to investigate the impact of the non-ADHD parent in maintaining stability in the home. In addition, research is needed to determine how the presence of ADHD among fathers might impact children. Research conducted on the perception of the children of ADHD parents would also increase the level of knowledge in regards to the impact of paternal ADHD symptoms on children. In order to establish evidence-based practices, research that focused on interventions would also be useful. Some of those interventions would include a comparison of the effectiveness of medication only, psychoeducational skills training only, and a combined approach. Investigating the impact of group work would provide information related to the impact of a homogeneous support group on fostering positive parenting behaviors. Whereas a significant amount of research is available on the subject of Adult ADHD, more research is needed to study the possibility of secondary impact of the disorder on children of ADHD parents.

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An Evaluation of a Unique Gatekeeper Training for Suicide Prevention of College Students: Demonstrating Effective Partnering within Student Affairs

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Abstract

For college students, suicide is the second leading cause of death. In this study, we evaluated a gatekeeper training suicide prevention program that emphasizes emotional connectivity with students in crisis and incorporates the collaborative efforts between Housing/Residential Programs and the Counseling Center. Participants consisted of graduate and resident assistants. Very significant gains were found from pre-training to post-training and from pre-training to three-month follow-up in knowledge, skills, and emotional connectivity. Two years of data will be presented.

For college students, suicide is the second leading cause of death resulting in over 1,100 student deaths per year (Center for Disease Control, 2009). Researchers from the American College Health Association (2011), assessed over 105,000 students across the United States, and found that almost 10% of students seriously contemplated suicide and 1.5% had made a suicide attempt in the past year. In addition, Hirch and Barton (2011) surveyed 439 college students and found that 46% of students reported past suicidal ideation, 10% reported making a past suicide attempt, and 2% reported that they might attempt suicide in the future (Hirsch & Barton, 2011). Thus, the development of suicide prevention programs on college campuses is an important and urgent task.

Researchers have indicated that there are numerous risk factors linked to college student suicidal behavior including previous suicide attempts, history of depression or other mental illness, alcohol or drug use, stress, low self-esteem, academic problems, relationship issues, and loneliness (Center for Disease Control, 2009). Some students enter college with pre-existing

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mental health conditions, while others may develop risk factors during their time in college. Garlow et al. (2008) found an association between suicidal ideation, a history of suicidal acts, and depressive symptoms in college students. Specifically, individuals with more severe symptoms of depression were more likely to experience suicidal ideation. An association was also found between suicidal ideation and other internal distress such as anxiety, irritability, and rage (Garlow et al., 2008). College is a major transitional period, which may increase the likelihood for depressive symptoms and exposure to drugs and alcohol which are two major risk factors for suicide (Westefeld et al., 2006).

Gatekeeper Suicide Prevention

The problem of college student suicide has drawn national attention and encourages college mental health professionals to focus on suicide prevention and intervention. One type of prevention effort for at-risk students is the gatekeeper training method. Gatekeepers have primary contact with people at risk for suicide and identify them by recognizing suicidal risk factors. In essence, gatekeepers open the gate to assistance for people at risk for suicide (Gould & Kramer, 2001). Gatekeeper training programs aim to enhance recognition and referral by training staff at colleges and universities to help identify students at risk and refer these students to appropriate supportive services or counseling.

Research on gatekeeper training programs for college students is limited. Findings from a recent study on gatekeeper skills of community members after a brief suicide prevention training program, indicated that 10% of participants met criteria for acceptable gatekeeper skills prior to the training compared to 54% of participants after training (Cross, Matthieu, Lezine, & Knox, 2010). According to Aseltine and Demartino (2004), youth who are suicidal may turn to their peers first for help, therefore gatekeeper prevention programs that teach peers how to recognize warning signs of suicide, deal effectively with a student in distress, and make appropriate referrals are important. The benefit of peers helping peers has been supported by research on peer health education programs on college campuses. There is significant support in the literature for the positive effects of peer health educators on college students in regards to making healthy decisions about alcohol and drug use, sex, nutrition and exercise, and mental health issues (Sloane & Zimmer, 1993; White, Park, Israel, & Cordero, 2009). Peer health educators have credibility from students and are therefore more likely to facilitate attitude and behavior changes, as well as, be able to understand the experiences of their fellow classmates (Sloane & Zimmer, 1993).

In a systematic review of gatekeeper training programs, Isaac et al. (2009) concluded that gatekeeper training holds promise as part of a multifaceted strategy to combat suicide. They further concluded that gatekeeper training has been proven to positively affect the skills, attitudes, and knowledge of people who undertake the training in many settings. Two recent studies evaluated one type of gatekeeper training program, Question, Persuade, and Refer (QPR), with college students. Tompkins and Witt (2009) found a positive train-

ing effect in the domains of appraisal of preparation, efficacy, and intentions to perform in a gatekeeper role. Additionally, Indelicato, Mirsu-Paun, and Griffin (2011) found increased self-ratings in all of the suicide prevention knowledge and skill dimensions over a 3-month period. These results support the benefits of implementation of similar gatekeeper training methods at the university level.

It is important to recognize protective factors against suicidal ideation and behavior when determining the usefulness of a preventative training program. Recent studies support the importance of social support as a protective factor against suicidal ideation and behavior (Park, Cho, & Moon, 2010; Winfree & Jiang, 2009; Hirsch & Barton, 2011). Some gatekeeper training programs utilize this social support element by training peers to be in the role of gatekeepers. Stuart, Waalen, and Stromm (2003) analyzed the usefulness of training peer gatekeepers for suicide risk assessment with high school students. Participants included a total of 65 adolescents between the ages of 13 and 18 years old. Changes in the students' knowledge, skills, and attitudes toward suicide were measured before, immediately after, and three months following the training. Pre-training scores differed significantly from post-training and follow-up, supporting that participants' skill level increased significantly and is similar to that of experts after training than before training. In addition, the difference between the immediate post-training and the follow-up training test was not significant, supporting that the change in skills was maintained over time.

"Campus Connect" Gatekeeper Suicide Prevention Training Program

The purpose of our study was to evaluate the effectiveness of a gatekeeper suicide prevention training program called "Campus Connect" developed by the Syracuse University Counseling Center (2006). "Campus Connect" is listed on the Suicide Prevention Resource Center/American Foundation for Suicide Prevention Best Practices Registry but there is currently only one empirical study evaluating this program (Pasco, Wallack, Sartin, & Dayton, 2012). Pasco et al. (2012) found increased improvement in suicide and crisis related knowledge and skills among 65 college student resident advisors who completed the training. In addition, they found that gatekeepers who engaged in the experiential exercises that emphasized communication and relationship skills and taught gatekeepers to emotionally connect with students in crisis had significantly higher crisis response skills than those who only had didactic training (Pasco et al., 2012). On college campuses, individuals who are typically in gatekeeper roles serve as graduate and resident assistants in Residential Life. The Counseling Center collaborated with Housing and Residential Programs to implement "Campus Connect." The goal was to enhance the efficacy of campus suicide prevention. This suicide prevention program emphasizes training graduate and resident assistants as gatekeepers to identify, understand, and relate to the emotional experiences of students in crisis. The goal is to increase relationship building skills, communication skills, and empathic listening skills so that participants can become gatekeepers trained to assist individuals in crisis by helping them feel validated, supported, and understood (Syracuse University, 2006). The key aspects of "Campus Connect" link to the protective factor of social support, which research has indicated plays an important role in suicide prevention (Park et al., 2010; Winfree & Jiang, 2009; Hirsch & Barton, 2011).

Research in evaluating gatekeeper training for peers is limited. In our study, we sought to address this gap by examining the efficacy of training college students to identify, understand, and relate to other students who may be at risk for suicide. We will present data from two years of gatekeeper training using "Campus Connect."

Method

Participants

In 2009, participants included 97 college students from a midsize public university in the Northeast. All students were either graduate or resident assistants, and the majority of the sample were Caucasian (80%) and female (63%). Eighty-eight percent of participants ranged between ages 19 and 22, and the majority were college sophomores (29%) and juniors (42%). Of the 97 original participants, 35 participated in the three-month follow-up survey (36%). In 2010, participants included 87 graduate and resident assistants from the same university, of which 79% reported to be Caucasian and 53% were female. Students consisted of sophomores (30%), juniors (33%), seniors (23%) and graduate students (14%). Of the 87 participants, 62% were participating in the training for the first time and 38% were participating for the second time. For statistical analyses, participants were divided into two groups: students who were trained the previous year (N= 32) and students who had no previous training (N = 53).Twenty-nine students participated in the three-month follow-up survey (33%). See Tables 1A and 1B for additional information.

Table 1A

Self-Reported Participant Demographics 2009

Age			Class Year			Gender			Race		
	Frequency	Percent		Frequency	Percent		Frequency	Percent		Frequency	Percent
18	4	4	Sophomore	28	29	Male	36	38	Caucasian	77	80
19	24	25	Junior	41	42	Female	60	63	African American	12	13
20	37	38	Senior	18	10		N = 96		Hispanic/Latino	4	4
21	13	13	Grad Student	10	10				Pacific Islander	1	1
22	11	11		N = 97					Mixed Race	2	2
23	2	2								N = 96	
24	3	3									
25	1	1									
26	2	2									
	N = 97										

Measures

The same survey was given both years and consisted of a demographics page that asked for gender, race, age, number of trainings attended, and year in school. In addition, the Suicide Intervention Training Assessment; (SITA) was used. The SITA was created by the originators of the "Campus Connect" prevention program at Syracuse University and measures self-efficacy for specific suicide and crisis response skills. The SITA consists of 14 items that were rated on a Likert scale ranging from 1 ("not at all true") to 10 ("very true"). Sample questions included "I understand the meaning of various suicide terms, "I know how to ask someone if they are thinking about suicide," and "I feel comfortable attempting to emotionally connect with students in crisis." The 14 survey items were divided into three categories. The first category, *Knowledge*, was related to knowledge and attitudes about suicide and included items 1, 2, 3, 4, 7, and 12. The second category, *Skills*, comprised items related to the ability to perform gatekeeper behaviors (items 5, 6, 8, 13, and 14). The final category, *Emotional Connectivity*, was composed of items 9, 10, and 11, and related to the ability to develop a supportive relationship with a student in crisis. The categories of *Skills* and *Emotional Connectivity* include aspects of social support, a protective factor identified in suicide prevention. See Table 2 for a complete list of survey items divided by category.

Table 2

Description of Items, Categories, and Internal Consistency Reliability

Category		Campus Connect Survey Item	Alpha Values
Knowledge	1	I understand the meaning of various suicide terms (i.e. threat, attempt, survivor of suicide).	0.8
	2	I am familiar with the prevalence rates of suicidal ideation and suicide attempts among college students.	
	3	I am aware of the various risk factors related to suicide.	
	4	I believe that if someone is thinking about suicide they should be encouraged to talk about their suicidal thoughts.	
	7	I understand the potential impact of paraphrasing emotions.	
	12	I am familiar with the available referral resources for emotionally distressed students.	
Skills	5	I know how to ask someone if they are thinking about suicide	0.81
	6	I feel comfortable asking someone if they are thinking about suicide.	
	8	I feel comfortable paraphrasing emotions.	
	13	I feel able to assist emotionally distressed students in accessing available referral resources.	
	14	I believe that distressed students will follow through with referrals I provide to them.	
Emotional Connectivity	9	I believe I am able to emotionally connect with students in crisis.	0.92
	10	I feel comfortable attempting to emotionally connect with students in crisis.	
	11	I feel capable of helping students in crisis feel understood.	

Procedures

Two Counseling Center faculty members participated in an all-day training on “Campus Connect” with the developers from Syracuse University. These two individuals formally trained the other professional staff within the Department. “Campus Connect” is a manual-based suicide prevention program that is divided into thirteen sections and lasts three hours. Each section has a list of learning objectives, recommended time to complete the activity, and detailed instructions for guiding the training. This program took place in six classrooms, with 16-20 students and one facilitator in each room.

Prior to the training, participants were invited to take part in the study. Informed consent forms were distributed and reviewed with the entire group. Students who agreed to participate completed a pre-training survey and immediately after the training completed a post-training survey. Students who did not wish to participate in the study were instructed to sit quietly and to turn in their blank surveys along with the completed surveys at the end of the training. This was done to avoid any feelings of discomfort for students who did not wish to participate in the study. Participants were asked if they would be willing to take part in a three-month follow-up. If they agreed, they provided their name and mailing address. At the three-month follow-up, participants were mailed the same survey completed at pre and post-training with a postage paid envelope for its return. Students who participated in the follow-up study were entered in a drawing for a $75 gift card to the University bookstore. The University Institutional Review Board reviewed and approved our study.

Results

For both the 2009 and 2010 data, analyses were first completed to examine demographic differences. Significant differences based on academic year (graduate student, senior, junior, or sophomore) were analyzed using *t*-tests by category for pre-training, post-training, and follow-up. Academic year was separated into upperclassmen (graduate students and seniors) and underclassmen (juniors and sophomores) for the purpose of this comparison. For pre-training category 1, *Knowledge,* upperclassmen showed significantly higher ratings (M = 6.54, SE = 0.26) than underclassmen [(M = 5.86, SE = 0.17), t (95) = -2.69; p < .05]. Similar results were found in pre-training category 2, *Skills*, between upperclassmen (M = 5.35, SE = 0.36) and underclassmen [(M = 4.56, SE = .18), t (95) = -3.19; p < .05]. Comparisons made at post-training showed almost the exact same results as pre-training. In post-training category 1, *Knowledge,* upperclassmen showed significantly higher ratings (M = 9.34, SE = .10) than did underclassmen [(M = 8.95, SE =.08), t (95) = -2.89; p < .05]. In post-training category 2, *Skills,* upperclassmen showed significantly higher ratings (M = 8.49, SE -0.18) than did underclassmen [(M = 8.00, SE = 0.13), t (95) = -2.52; p < .05].

Comparisons between pre-training, post-training, and follow-up by ethnicity and gender were also conducted using *t*-tests. For ethnicity, participants were divided into two groups: minority and non-minority (Caucasian). No significant differences were found between groups across all three categories

(*Knowledge, Skills, and Emotional Connectivity).* Similarly, no significant differences were found between males and females across all three categories.

Effects of Gatekeeper Training Program: 2009 Data

In order to determine the overall effects of the gatekeeper training program from pre-test to post-test, a series of paired-means *t*-tests were conducted for each individual item and for the three categories (*Knowledge, Skills, and Emotional Connectivity*). All differences were significant at the $p < .0001$ level, indicating a significant increase in knowledge, skills, and emotional connectivity from pre-test to post-test. Similar statistical procedures were conducted in order to determine differences between pre-test and three-month follow-up. Results indicated a significant increase in knowledge, skills, and emotional connectivity across all items from pre-test to follow-up at the $p < .001$ level or higher. Means, standard deviations, and sample size are summarized in Table 3A.

Paired-sample t-tests were conducted to determine how many gains were retained from post-test to three-month follow-up. Of the 97 original participants, 35 participants (36.1%) completed the three-month follow-up survey. This survey consisted of the same items presented before (pre-test) and immediately after (post-test) the gatekeeper training. Results indicated decreases in gains from post-test to three-month follow-up, indicating loss of some knowledge and confidence in their ability to perform important gatekeeper behaviors from the training. The level of significance of these decreases varied. Very significant decreases were seen in *Knowledge* [*M*(Follow-up – Post) = -0.89; $N = 35$; $p < 0.01$] and *Skills* [*M*(Follow-up – Post) = -.63; $N = 35$; $p < 0.01$]. Decreases were also seen in *Emotional Connectivity* [*M*(Follow-up – Post) = -.36; $N = 35$; $p = .05$]. Significance levels of difference from post-test to follow-up for each individual item can be seen in Table 3A.

Although there were statistically significant decreases in categories *Knowledge* and *Skills* from post-test to three-month follow-up, significant gains in each individual item and category were seen from pre-test to post-test and pre-test to follow-up at the $p < .0001$ level. This indicated that significant gains were maintained over three months. See Table 3A for additional information.

Table 3A

2009 Data: Participants Average Change by Individual Item and Three Categories Across Pre-test, Post-test, and Follow-up Assessments

Domain	Pre-test		Post-test		Pre-Test to Post-Test	Follow-up		Post-Test to Follow-Up
	Mean	*N*	*Mean*	*N*	*p*-value	*Mean*	*N*	*p*-value
Item 1	7.47	97	9.51	97	<.0001	9.29	35	0.0018
Item 2	4.56	97	9.36	97	<.0001	7.57	35	<.0001
Item 3	6.48	97	9.10	97	<.0001	8.46	35	0.0055
Item 4	7.42	97	9.31	97	<.0001	9.09	35	0.0042
Item 5	4.19	97	8.80	97	<.0001	8.40	35	0.0126
Item 6	4.36	97	7.84	97	<.0001	7.49	35	**0.0680**
Item 7	5.79	97	8.89	97	<.0001	8.40	35	0.0199
Item 8	5.26	97	8.54	97	<.0001	8.14	35	0.0091
Item 9	6.57	97	8.60	97	<.0001	8.54	35	**0.6127**
Item 10	6.34	97	8.53	97	<.0001	8.34	35	**0.0850**
Item 11	6.86	97	8.66	97	<.0001	8.43	35	0.0054
Item 12	7.00	97	9.29	97	<.0001	9.20	35	0.0452
Item 13	7.05	97	9.10	97	<.0001	9.09	35	**0.1098**
Item 14	5.43	97	7.93	97	<.0001	7.37	35	**0.0991**
Category 1:Knowledge	6.46	97	9.24	97	<.0001	8.67	35	<.0001
Category 2: Skills	5.26	97	8.44	97	<.0001	8.10	35	0.0069
Category 3: Emotional Connectivity	6.59	97	8.59	97	<.0001	8.44	35	0.0536

Note. All means from pre-test to post-test and pre-test to follow-up are significantly different at the $p < .0001$ level.

All *p*-values in bold are not significant ($p > .05$) and indicate non-significant changes in mean between follow-up and post-test.

Effects of Gatekeeper Training Program: 2010 Data

In order to determine the overall effects of the gatekeeper training, participants were divided into two groups: students who were trained the previous year (*N*= 32) and students who had no previous training (*N* = 53). To evaluate the program effects from pre-training to post-training, a series of paired-means *t* -tests were conducted for each individual item and for the three categories (*Knowledge, Skills, and Emotional Connectivity*). For both groups, all differences were significant at the $p < .0001$ level, indicating a significant increase in knowledge, skills, and emotional connectivity from pre-test to post-test, for veteran and new graduate and resident assistants. Paired *t*-tests were also conducted to determine differences between pre-test and three-month follow-up. For students with no previous training, results indicated a significant increase in knowledge, skills and emotional connectivity at the $p < .01$ level or higher.

Paired-sample *t*-tests were conducted to determine how many gains were retained from post-test to three-month follow-up. Of the 87 original participants, 29 participants completed the three-month follow-up survey. For graduate and resident assistants who had previous training there were no significant decreases, except for Question 2, indicating no significant loss in knowledge, skills, or emotional connectivity from post-training to three-month follow-up. For graduate and resident assistants taking the training for the first time, results indicated decreases in gains from post-training to three -month follow-up, indicating loss of some knowledge and confidence in their ability to perform important gatekeeper behaviors from the training. Very significant decreases were seen in *Knowledge* [*M*(Follow-up – Post) = -0.75; *N* = 29; $p < 0.001$] and *Skills* [*M* (Follow-up – Post) = -.73; *N* = 29; $p < 0.001$]. Decreases in *Emotional Connectivity* were not significant [*M*(Follow-up – Post) = -.45; *N* = 29; $p = .06$]. Please see Tables 3B and 3C for additional information.

Although there were statistically significant decreases in categories *Knowledge* and *Skills* from post-test to three-month follow-up, significant gains in each individual question and category were seen from pre-test to post-test and pre-test to follow-up at the $p < .0001$ level for graduate and resident assistants taking the training for the first time. Students who had the training before had some gains but not as significant as the first timers because they started at higher pre-test means due to having had prior training. This indicated that significant gains were maintained over three months compared to the pre-test scores. Please see Tables 3B and 3C for additional information.

Table 3B
2010 Data for Participants with Previous Training

Domain	Pre-Test Mean	Post-Test Mean	Follow-up Mean	Pre-Test to Post-Test p-value N=32	Post-Test to Follow-up p-value N=29	Pre-test to Follow-up p-value N=29
Item 1	8.9063	9.7188	9.5833	<.0001	0.1911	0.096
Item 2	7.0313	9.3438	8.25	<.0001	0.0183	0.096
Item 3	8.2813	9.2188	9.4167	<.0001	0.3388	<.0001
Item 4	8.25	9.3125	10	<.0001	0.2087	0.021
Item 5	7.75	9.375	9.5	<.0001	0.7227	0.0671
Item 6	6.3125	8.5625	8.9167	<.0001	0.7602	0.095
Item 7	8.375	9.3125	9.6667	<.0001	1	0.0105
Item 8	7.625	8.8438	9.3333	<.0001	0.5758	0.0197
Item 9	7.8387	9.0645	8.75	<.0001	0.8837	0.0816
Item 10	7.6875	9.0313	9.1667	<.0001	0.4974	0.0372
Item 11	8.25	9.1875	9.0833	<.0001	0.5863	0.0674
Item 12	8.625	9.5938	9.4167	<.0001	0.2199	0.0527
Item 13	8.6563	9.4063	9.5	<.0001	0.5863	0.0437
Item 14	6.8438	8.875	8.5	<.0001	0.6576	<.0001
Category 1:Knowledge	8.2448	9.4167	9.3889	<.0001	0.2928	<.0001
Category 2: Skills	7.4375	9.0125	9.15	<.0001	0.762	<.0001
Category 3: Emotional Connectivity	7.9254	9.0944	9	<.0001	0.7047	0.0306

Notes. All means from pre-test to post-test are significantly different at the p <.0001 level
All means from pre-test to follow-up had p-values ranging from .09 to <.0001
All means, except for question 2, from post-test to follow-up are not significantly different

Table 3C
2010 Data for Participants who had Training for the First Time

Domain	Pre-Test Mean	Post-Test Mean	Follow-up Mean	Pre-Test to Post-Test p-value N=53	Post-Test to Follow-up p-value N=29	Pre-Test to Follow-up p-value N=29
Item 1	7.4151	9.5000	9.0000	<.0001	<.0001	0.0200
Item 2	4.4151	9.0962	7.8000	<.0001	<.0001	<.0001
Item 3	6.6226	8.9231	8.8000	<.0001	**0.1502**	<.0001
Item 4	7.2264	9.4231	9.2000	<.0001	**0.1733**	<.0001
Item 5	4.2642	8.7692	9.0667	<.0001	**0.5667**	<.0001
Item 6	5.0189	7.8942	7.5333	<.0001	<.0001	<.0001
Item 7	5.7736	8.9038	8.4000	<.0001	0.0342	<.0001
Item 8	5.5849	8.4038	7.8000	<.0001	<.0001	<.0001
Item 9	7.1132	8.6346	8.6000	<.0001	0.0335	0.0200
Item 10	7.4528	8.6538	8.7333	<.0001	**0.0824**	<.0001
Item 11	7.1698	8.5192	8.8000	<.0001	**0.5816**	<.0001
Item 12	5.9811	9.0588	8.8667	<.0001	0.0552	<.0001
Item 13	6.1698	8.9808	9.0000	<.0001	0.0552	<.0001
Item 14	5.5472	8.1731	7.8667	<.0001	0.0335	<.0001
Category 1:Knowledge	6.2390	9.1508	8.6778	<.0001	<.0001	<.0001
Category 2: Skills	5.3170	8.4442	8.2533	<.0001	<.0001	<.0001
Category 3: Emotional Connectivity	7.2453	8.6026	8.7111	<.0001	**0.0602**	<.0001

Notes. All means from pre-test to post-test and pre-test to

Means vary from post-test to follow-up. Means that are bold are not signif-

Evaluation of the Program

Participant evaluations of the gatekeeper training program were very positive. Data was collected by the Counseling Center and by Housing and Residential Programs using separate evaluation forms. On the Counseling Center's evaluation form, participants were asked to rate the program on a 5-point Likert scale (1 = low; 5 = high). The majority of participants (97%) ranked the usefulness of the program as "high" or "very high." When asked how much information was gained during the program, the majority of students (92%) indicated "high" to "very high" levels of information gained. On the Housing and Residential Programs' evaluation form, participants were asked to comment on how well the gatekeeper program met its goal of: "Educating resident assistants on basic knowledge and referral sources related to suicide and to enhance their communication and relationship building skills so that they can establish a more meaningful and positive relationship with someone who is in crisis." Ninety percent "agreed" or "strongly agreed" that the session's goal was achieved. In addition, 90% "agreed" or "strongly agreed" that this session or similar sessions should be repeated in future graduate and resident assistant trainings.

In addition to these quantitative evaluations, more qualitative information was gathered to assess how trainees utilized the knowledge and skills they learned from the Campus Connect training in their everyday roles as graduate and resident assistants. This information was gathered through interviews with several of the students who participated in the Campus Connect training the previous summer and then spent the fall and spring semesters working in the residence halls. Participants reported that the Campus Connect training helped them hone their skills to talk with students about struggles they were having and to better identify the level of severity of a particular issue. One student stated, "The training made me more aware of the situations and armed me with the proper arsenal of things to say when dealing with the student. Subtle clues, comments and behaviors are important to learn when identifying and intervening with a student in crisis." Another shared, "This training helped me become a better observer and communicator. It has allowed me to become more aware of potential risks in my hallway."

Other participants reported that the Campus Connect training gave them a sense of confidence and level of comfort when dealing with students in crisis. For example, one student said, "The training certainly made me more comfortable when interviewing the person and trying to determine the extent to which the issue affected them." Another participant shared, "Campus Connect has given me the skills to recognize suicide risks and the confidence to assist students in any way." Furthermore, another student expressed, "In these times, my position as an RA could possibly be the most influential person in that student's life and I feel confident that Campus Connect has helped me to keep my sense of calm and provide the exact services that the student needs."

Discussion

This study was conducted to examine the impact of a unique gatekeeper suicide prevention program that emphasized teaching college student resident and graduate assistants to identify, understand, and relate to the emotional experiences of students in crisis. The study also demonstrated the effective collaborative efforts between Housing and Residential Programs and The Counseling Center. Past studies investigating gatekeeper training programs with college students focused on more traditional models of training, which included teaching basic statistics, facts, warning signs, and instruction on making helpful referrals (Tompkins & Witt, 2009). "Campus Connect" includes these valued topics but also emphasizes enhancing the gatekeeper's ability to establish a more meaningful and positive relationship with the individual in crisis (Syracuse University, 2006).

The main objective of this study was to examine changes in knowledge, skills, and emotional connectivity from pre-training to post-training. Similar to previous studies, this investigation found significant gains from pre-training to post-training in knowledge and self-appraisal of participants' ability to perform important gatekeeper behaviors for both years (Cross et al., 2010; Tompkins & Witt, 2009; Wyman et al., 2008). This study differed from previous research in that it also assessed gatekeepers' ability to establish supportive relationships with students in crisis. Highly significant gains from both 2009 and 2010 were also found from pre-training to post-training on measures designed to assess participants' ability to emotionally connect with the student in crisis. Connecting with students on an emotional level is an important skill for gatekeepers to learn because students in crisis often feel misunderstood and alone in their distress. These students could benefit from support by gatekeepers to help them feel validated, understood, and supported.

Training peers in a supervisory role to be gatekeepers is beneficial in college environments. These peers already provide a familiar face to students in crisis and any existing relationship with a student may strengthen their ability to connect with students and assist them in getting appropriate help. Collaborating with Housing and Residential Programs and using graduate and resident assistants in the role of gatekeepers increased our access to students who could potentially be in crisis or feeling suicidal.

In 2009, all participants were taking the "Campus Connect" training for the first time. In 2010, approximately two-thirds of the participants were taking the training for the first time and one-third were experiencing the training for the second time. Data from 2009 participants and first time 2010 participants at three-month follow-up showed statistically significant decreases in the categories of knowledge and skills from post-training to three-month follow-up. We believe the decreases in emotional connectivity were not significant from post-training to follow-up because graduate and resident assistants naturally have opportunities to connect with their students over the course of time. As a result, their appraisal of feeling more confident to connect on an emotional level would be expected to maintain with practice, whereas knowledge learned three months ago, which has not been practiced, would be expected to decrease

somewhat. Overall, with participants taking the training for the first time, it is important to note there were still significant gains from pre-training to three-month follow-up in all three domains indicating improved knowledge, appraisal of ability to perform important gatekeeper behaviors, and emotional connectivity lasting at least three-months.

For the individuals taking the 2010 training for the second time, there were no significant decreases in any of the three categories of knowledge, skills, or emotional connectivity from post-training to follow-up. Only one of the fourteen individual items (*awareness of suicidal prevalence and attempt rates*) showed any significant decrease at all. We might anticipate that individuals who are learning about suicide statistics may forget some of this information three months after the training but what is interesting to note is that those graduate and resident assistants who were taking the training for the second year in a row retained more of the knowledge, skills, and indicators of emotional connectivity even three months following their training. It is also important to note that the 2010 participants taking the training for the second time had higher means on all three tests: pre, post, and follow-up. It was encouraging for us to see that individuals taking the training for the second time not only seemed to retain more knowledge, skills, and emotional connectivity from post to follow-up testing but also consistently scored higher on the pretest than individuals who took the training for the first time in 2010. These results suggest that there was a benefit for individuals to take the training for a second time. One of the questions that we have received from Housing and Residential Programs is whether graduate and resident assistants should take the training multiple times. Based on these results we have advocated for gatekeepers to take the training for at least two years in a row. Further information from participants taking the training for a third year will need to be reviewed before any additional recommendations can be made.

When we review the data from 2010 participants who took the training for a second time, we noticed that most scores were significantly higher from pre-training to follow-up and all but one of the items showed borderline significant increases. We believe that since the participants' pre-test score means were already higher there was less room for increase and these participants were able to maintain this higher level of retention and confidence through pre, post and follow-up testing.

In addressing the effectiveness of "Campus Connect," our study suggests that students who participated in the training in 2009 and 2010 demonstrated improved knowledge, appraisal of ability to perform important gatekeeper behaviors and emotional connectivity lasting at least three months. Results from participants who took the training previously indicated that there were benefits from taking the training a second time, as evidenced by the increase in their level of retention of knowledge, appraisal of their gatekeeper skills, and perceived ability to connect emotionally with students in crisis had increased. Our study also demonstrated that the successful partnering between the Counseling Center and Housing and Residential Programs facilitated the effective implementation of this unique gatekeeper training.

Limitations and Future Research Considerations

There were several limitations to this study. First, our sample included college students from a mid-sized public university in the Northeast, therefore limiting generalizability of results. In addition, specific groups were invited to participate in this study (graduate and resident assistants) creating a sampling bias and there is potential for a test-retest bias among students participating in the program for a second time. Another limitation was that this study did not include a control group. Lastly, our qualitative data was more feedback than true qualitative research. Despite these limitations, this study shows promise for using gatekeeper training for suicide prevention in a college setting.

Future research targeting the effectiveness of gatekeeper training for suicide prevention is warranted. Our study addresses the maintenance of knowledge and self-appraisal of ability to perform important gatekeeper behaviors over time, but it would be important to evaluate those factors more closely. In addition, assessing the referral patterns of gatekeepers is important because it allows researchers to examine the efficiency of gatekeepers' ability to make appropriate referrals for students in need of help. While our study had a valuable longitudinal component looking at maintenance and use of knowledge and skills over time, it is essential for future research to continue to evaluate how often gatekeepers should be trained.

Current studies on gatekeeper training often use self-report data to measure gains within the data collected. Future studies could include data from records kept by Housing and Residential Programs targeting how frequently staff members make referrals to the Counseling Center, Health Services, or other appropriate resources. Additional information could be extracted from incident reports after encouraging graduate and resident assistants to record when they actually ask a student if they are thinking about suicide. Such information could strengthen and support the self-report data that is currently being used to assess these gains.

As indicated above our data suggests that trainees can improve their skills by taking the training a second time. In regards to gatekeepers who would be eligible for taking the training for the third time we are developing a brief check-up or refresher program to facilitate the maintenance of gatekeeper skills and an opportunity to rehearse scenarios to address students in crisis.

In summary, this investigation presents data demonstrating that the implementation of "Campus Connect," a gatekeeper training program for graduate and resident assistants in a college setting, resulted in positive changes of participants' knowledge, self-appraisal of their ability to perform important gatekeeper behaviors, and confidence in their ability to emotionally connect with students in crisis. This unique suicide prevention program benefits from collaboration between the Counseling Center and Housing and Residential Programs, is time and cost effective, and shows promise as an effective strategy to help prevent college student suicide and increase overall student success in college.

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