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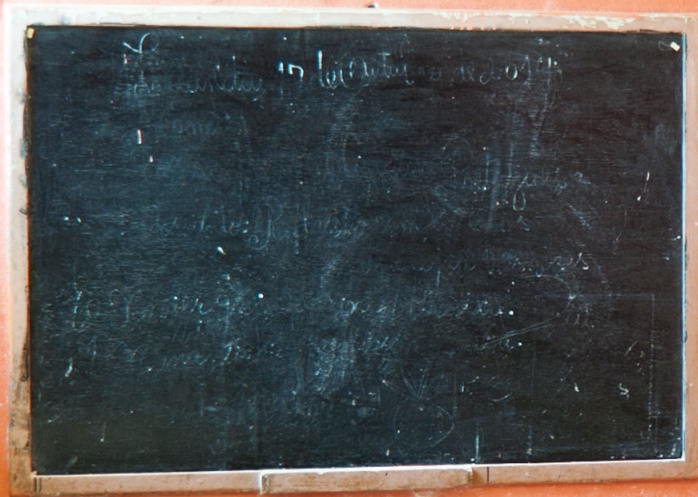
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Mental Health Facilitator (MHF) Service Implementation in Schools in Malawi, Africa: A Strategy for Increasing Community Human Resources



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The Mental Health Facilitator (MHF) program utilizes a population-based curriculum and has been implemented in Malawi for the past seven years. This article reports findings from an ethnographic study that explored how 40 MHF stakeholders have experienced the MHF program. This transdisciplinary program is a 30-hour training in community mental health that focuses on fundamental helping skills; identification of stress, distress and mental disorders; and appropriate community referral and follow-up. Results indicated four interrelated themes representing participants' beliefs about their experiences with the training, including the curriculum's responsiveness to the Malawian context, the availability and limitations of resources, the processes involved, and a variety of identified outcomes. Implications for community implementation and future directions are identified.

Keywords: Mental Health Facilitator, MHF, mental disorders, Malawi, ethnographic study

Mental health research supports the notion that better care management is achieved when people receive education, training and support to carry out the role of informal caregivers (World Fellowship for Schizophrenia and Allied Disorders, 2006). Although the prevalence of mental disorders in Africa is a significant health problem (Jenkins et al., 2010), treatment remains a low priority (Bird et al., 2011; Jacob et al., 2007), placed at the bottom of the public health care agenda. Mental health patients of all ages and their families are too often invisible, voiceless and living at the margins of society, and they are rarely mobilized to advocate for themselves (Saraceno et al., 2007). In Africa, mental health receives less attention due to a plethora of problems with communicable diseases and malnutrition (Gureje & Alem, 2000). Moreover, the contribution of mental distress to morbidity, as well as mortality, largely goes underappreciated (Jenkins et al., 2010).

Skeen, Lund, Kleintjes, Flisher, and the MHaPP Research Programme Consortium (2010) have reported: "Mental health is a crucial public health and development issue in sub-Saharan Africa" (p. 624). At least half of all African countries have no community-based mental health services, and almost as many have no integration of mental health into primary care or training facilities for primary care staff in the treatment of mental health (World Health Organization [WHO], 2005). In low-income countries like Malawi, essential psychotropic medications are not available, and resources for mental health training and care are largely lacking (Becker & Kleinman, 2013; WHO, 2004). Challenging the negative perception of mental disorders, reducing their prevalence

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and providing adequate care are essential policy goals for most of Africa (Gureje & Alem, 2000), a continent where widespread stigma and discrimination, human rights abuses and poverty are the hallmarks of mental health care (Lund, 2010).

In Africa, alternative explanations for mental distress, such as bewitchment, taboos and the belief that *it runs in families*, reduce the chances of access to mental health care (Bird et al., 2011; Wright, Common, Kauye, & Chiwandira, 2014). Moreover, attitudes about mental illness are strongly influenced by traditional beliefs (e.g., supernatural causes) and remedies. Public education that dispels notions that mental disorders are incurable and nonresponsive to typical care is needed (Gureje & Alem, 2000) as well as an effective strategy to decrease stigma (Bird et al., 2011). To accomplish these goals, governments, as well as nongovernmental organizations, need to bring community mental health services to scale (Hinkle, 2014; Patel, 2013; Patel et al., 2007). In 2006, Murthy reported that a global community mental health blueprint does not exist in order to achieve mental health access, and that national community workforce strategies need to be linked to each country's unique situation. Relatedly, Hinkle (2012a, 2014), among others, has advocated for a radical shift in the way mental disorders are managed, including increasing the numbers of trained community-based workers who can be effectively utilized via informal non-health care sectors, as well as formal health care systems (Bradshaw, Mairs, & Richards, 2006; Gulbenkian Global Mental Health Platform, 2013; Petersen et al., 2009; Saraceno et al., 2007).

About 70% of African countries spend less than 1% of their budgets on mental health, with most of these monies going toward large psychiatric hospitals rather than cost-effective, community-based care (WHO, 2005). Mental health services are basically focused on emergency management (Petersen et al., 2009), with minimum long-term planning within the community. Resources for assisting people with mental stress, distress and disorders are insufficient, constrained, fragmented, inequitably distributed and ineffectively implemented (Becker & Kleinman, 2013; Chen et al., 2004; Gulbenkian Global Mental Health Platform, 2013; Hinkle, 2014; Hinkle & Saxena, 2006; Jenkins et al., 2010; Saraceno et al., 2007), especially in low-income African countries like Malawi, where there is a clear link between the lack of human resources and population ill health (Hinkle, 2014). Unfortunately, mental health services continue to be inequitably distributed, with lower-income countries having fewer mental health resources than higher-income countries (Coups, Gaba, & Orleans, 2004; Demyttenaere et al., 2004; Hinkle, 2014; WHO, 2005), as well as inefficient use of and decentralization of existing resources (Petersen et al., 2009). In summary, one of the major barriers to increased mental health care is the lack of people trained to provide care (Saraceno et al., 2007).

Historically, developing and promoting population-based mental health services at the grassroots level has been a difficult task (Hinkle, 2014). In less-developed countries like Malawi, 75–85% of people with mental disorders have received no treatment in the 12 months preceding a clinical interview, and this statistic does not account for the countless subthreshold cases (Demyttenaere et al., 2004; WHO, 2010a, 2010b). Furthermore, when people with mental disorders *are* identified, there is often no adequate resource to refer them to (Petersen et al., 2009).

Hinkle (2014) has reported the following:

Most mental disorders are highly prevalent in all societies, remain largely undetected and untreated, and result in a substantial burden to families and communities. Although many mental disorders can be mitigated or are avoidable, they continue to be overlooked by the international community and produce significant economic and social hardship. (p. 2)

Existing mental health care in Africa is under-resourced and overburdened (Bradshaw et al., 2006), with enormous gaps between the degree of mental suffering and the number of people receiving care (Becker & Kleinman, 2013; Hinkle, 2014; Saraceno et al., 2007; Weissman et al., 1997; Weissman et al., 1994; Weissman et al., 1996; WHO, 2010a, 2010b).

Chorwe-Sungani, Shangase, and Chilinda (2014), as well as Pence (2009), have indicated that mental health problems in Malawi “are often not identified and treated, because health professionals do not believe they are sufficiently competent to provide mental health care” (Chorwe-Sungani et al., 2014, p. 35). Unfortunately, mental health professionals might not have the “requisite public health skills for effective national advocacy” regarding mental health (Jenkins et al., 2010, p. 232). The numbers of primary care and specialist mental health workers are in general decline because of training costs and migration from frontier or rural settings to urban areas, and from low-income countries like Malawi to higher-income countries (Jenkins et al., 2010). In general, collaborations between mental health organizations and health agencies are weak (Gureje & Alem, 2000).

Low salaries and poor working conditions, as well as lack of training and recognition, are major demotivating factors for existing health workers’ involvement in mental health care (Bach, 2004; Manafa et al., 2009). Higher salaries in the private sector have resulted in few incentives for health care workers to work in rural areas where most people live in low-income countries (Saraceno et al., 2007). Overreliance on medical solutions to address psychosocial issues has a disempowering impact on communities (Jain & Jadhav, 2009), including their schools.

Furthermore, primary health care providers cannot adequately intervene with the numbers of mental health cases confronting communities, and medicine has not yet developed sufficient answers for chronic mental health and lifestyle problems (Swartz, 1998). Depending exclusively on medicine to deliver mental health care services risks an overreliance on a medical model and its medications, and less reliance on psychosocial interventions and influences, such as talking with people and problem solving (Patel, 2002; Petersen, 1999), especially for school children. Ten percent of children are considered to have mental health problems, but pediatricians are not generally equipped to provide effective treatment (Chisholm et al., 2000; Craft, 2005). The evidence reveals significant psychopathology among sub-Saharan children, with one in seven children and adolescents experiencing significant difficulties. The most common mental health problems among this age group include depression, anxiety, post-traumatic stress disorder and behavior issues.

In addition to a general lack of mental health workers (Chorwe-Sungani et al., 2014), one psychiatrist served the entire country of Malawi (Chorwe-Sungani et al., 2014), only 2.5 psychiatric nurses were available for every 100,000 people (WHO, 2005), and only one psychiatric unit was available, but not always open or at full capacity. A variety of settings must be used in Malawi, and not all of them are within formal health care. For far too long, the concentration has been on an overburdened medical system and not on the development of local community mental health care (Becker & Kleinman, 2013; Hinkle, 2014; Patel, 2013). For a review of the global impact of untreated mental health problems, see Hinkle (2014).

Recognizing the importance of community and family support and using general lay workers equipped with fundamental mental health skills can have positive outcomes (Gureje & Alem, 2000; Saraceno et al., 2007; Swartz, 1998). Saraceno et al. (2007) have reported, “Non-formal community resources will need to be recognized and mobilized to ensure access to care” (p. 1172). Likewise, in low- to middle-income countries, community workers are often the first line of contact with the health care system (Anand & Bärnighausen, 2004; Hinkle, 2014; Hongoro & McPake, 2004).

Communities in developing countries have historically lacked opportunities for mental health training, skill development and capacity building (Abarquez & Murshed, 2004). However, Hinkle (2014) also has indicated that “long years of training are not necessary for learning how to provide fundamental help for people who are emotionally distressed” (p. 4). International health care organizations have demonstrated a need to develop innovative uses of informal mental health assistants and facilitators to establish community mental health services (Hinkle, 2014; Warne & McAndrew, 2004). Hinkle (2006, 2009, 2014) and Eaton and colleagues (Eaton, 2013; Eaton et al., 2011) have indicated that if the gap in mental health services is to be closed, it must include the use of non-specialists to deliver care. Such non-specialized workers should receive Mental Health Facilitator training in order to identify mental stress, distress and disorders; provide fundamental care; monitor helping strategies; and make appropriate referrals (Becker & Kleinman, 2013; Hinkle, 2014; Hinkle, Kutcher, & Chehil, 2006; Hinkle & Schweiger, 2012; Jorm, 2012; Saraceno et al., 2007). According to Hinkle (2014), the “data speaks loudly to the need for accessible, effective and equitable global mental health care. However, a common barrier to mental health care is a lack of providers who have the necessary competencies to address basic community psychosocial needs” (p. 5).

Informal community mental health care is characterized by community members without formal education or training in mental health providing much-needed services. MHF training has been used to bridge the gap between formal and informal mental health care (Hinkle et al., 2006). Murthy (2006) has indicated that informal community care, including self-care, is critical. Moreover, promotion of community mental health increases understanding of mental health problems and decreases mistrust of people suffering from mental health concerns (Kabir, Iliyasu, Abubakar, & Aliyu, 2004; Wright et al., 2014).

Simply put, community workers are a large untapped volunteer resource for people suffering from problems associated with poor mental health (Hinkle, 2014; Hoff, Hallsley, & Hoff, 2009), and data have shown that the delivery of psychosocial-type interventions in non-specialized care settings is feasible (WHO, 2010a, 2010b). Hinkle (2014) has reported that “enhancing basic community mental health services, both informally and formally, is a viable way to assist the *never-served*” (p. 4). He elaborated that the “MHF program is part of a grassroots implementation trend that has already begun in communities around the globe” (p. 4). In straightforward terms, the demand for the strategic increasing of community mental health services in low-resource settings (Wright et al., 2014) needs to be simplified, locally contextualized, available where people live, affordable and sustainable (Patel, 2013). This plan includes offering services to school children and their families. Wright et al. (2014) have reported that “brief structured psychotherapies, delivered by non-specialist health workers, have been successfully trialed” (p. 156), but the benefits have not necessarily translated into everyday practice. However, this paper reports on one such translation.

Overview of the Mental Health Facilitator Curriculum and Training

The National Board for Certified Counselors (NBCC) International developed the MHF curriculum as well as an implementation method that is making a global impact (Hinkle, 2006, 2007, 2009, 2010a, 2010b, 2012a, 2012b, 2012c, 2013a, 2013b, 2014; Hinkle & Henderson, 2007; Hinkle & Schweiger, 2012). The MHF training program addresses the need for population-based mental health training that can be adapted to reflect the social, cultural, economic and political realities of any country (Hinkle, 2014). Hinkle (2014) described the MHF program as follows:

The MHF training program draws on a variety of competencies derived from related disciplines, including but not limited to psychiatry, psychology, social work, psychiatric nursing, and counseling. Because MHF training is transdisciplinary, traditional professional helping silos are not reinforced; skills and competencies are linked instead to population-based mental health needs rather than professional ideologies. Thus, individuals with MHF training (MHFs) can effectively identify and meet community mental health needs in a standardized manner, regardless of where these needs are manifested and how they are interpreted. Mental health and the process of facilitating it is based on developing community relationships that promote a state of well-being, enabling individuals to realize their abilities, cope with the normal and less-than-normal stresses of life, work productively, and make a contribution to their communities. (p. 6)

The MHF training program has been taught in 25 countries and augments specialized mental health services, where they exist, by functioning within the community to provide targeted assistance, referral and follow-up monitoring (Paredes, Schweiger, Hinkle, Kutcher, & Chehil, 2008). The MHF curriculum consists of information ranging from basic mental health knowledge to specific, local, culturally relevant, first-contact approaches to helping, including mental health advocacy, monitoring, and referral, all of which meet local population needs and respect human dignity (Hinkle, 2014). Nonclinical forms of mental health care such as emotional support or strategic problem solving utilized within the community and schools are emphasized.

Mental health training programs must have a practical component in order to become successful (Saraceno et al., 2007). Accordingly, Hinkle (2014) has stated, “the MHF program is designed to be flexible so local experts can modify components of the training to reflect the realities of their situation; so consumers and policymakers ensure that MHF trainings provide culturally relevant services to the local population” (p. 6). Such a contextual approach connects the MHF program to the principle that mental health care is a combination of universally applicable and context-specific knowledge and skills (Furtos, 2013; Hinkle, 2012a; Paredes et al., 2008; Swartz, 1998).

The diverse backgrounds of MHF trainees enhance the possibilities of addressing gaps in local mental health care. This factor in turn assists local educators, policymakers, service providers and volunteers to meet mental health needs without costly infrastructural investments. Local, contextualized MHF training further facilitates the development and delivery of school- and community-based care consistent with WHO recommendations for addressing the gap in mental health services (Hinkle, 2014), especially among school children.

More specifically, the fundamental features of the MHF curriculum include first-responder forms of community mental health care such as basic assessment, social support and referral. The standard training consists of approximately 30 hours, and a brief one-day version is available (Hinkle & Henderson, 2007). The curriculum includes a focus on the universality of mental stress and distress, as well as mental disorders (Desjarlais, Eisenberg, Good, & Kleinman, 1995; Hinkle & Henderson, 2007), basic helping skills, community mental health services, and advocacy, in addition to specified interventions such as suicide mitigation and responses to child maltreatment. Hinkle (2014) has indicated: “In general, MHFs are taught that negative and unhealthy assumptions about life and living contribute to additional mental and emotional stress” (p. 9). Investing in mental health, cost-effective interventions, the impact of mental disorders on families, and barriers to mental health care also are included. Hinkle and Henderson’s (2007) curriculum also encompasses understanding perspectives regarding feelings, effective communication (e.g., *listen, listen, listen*) and using questions

effectively in the helping process, as well as how to assess problems, identify mental health issues and provide support (e.g., *assess, identify, support, refer*).

Hinkle (2014) has reported that MHF “trainees concentrate on the abilities, needs and preferences that all people possess and how these are integrated in various cultures,” as well as “how to solve problems and set goals with people experiencing difficulty coping with life” (p. 11). Similarly, trainees learn specific information about basic mental disorders (e.g., anxiety, posttraumatic stress disorder, depression and mania, psychosis and schizophrenia, substance abuse and dependence, intellectual disability, autism, epilepsy).

In view of the vast burden of mental disorders in low- and middle-income countries, as well as the lack of resources for such care in these countries, more research and services are desperately needed (MacLachlan, Nyirenda, & Nyando, 1995; Saxena, Maulik, Sharan, Levav, & Saraceno, 2004). The MHF curriculum has been applied in public schools in Malawi, prompting an initial investigation of its effectiveness.

Method

Design

An applied ethnographic research design (Pelto, 2013) was selected to explore how MHF stakeholders in the schools experienced the program in Malawi. As a constructivist research tradition, ethnography explores cultural patterns within a group (Hays & Wood, 2011). Accordingly, it has been argued that ethnographic methods can enhance education-related research conducted within multicultural communities, as well as provide a contextual understanding of diversity; consequently, ethnography has been purported as effective in giving a voice to those who have been underrepresented in research (Quimby, 2006).

Several steps were taken to strengthen the methodological rigor of this study, specifically efforts to increase trustworthiness through establishing credibility, dependability, transferability and confirmability (Lincoln & Guba, 1985). To demonstrate the credibility or believability of the current findings, we used prolonged community engagement and triangulation (Hays & Singh, 2012). Two of the four researchers were involved in data collection through interviews and focus groups over a five-day period, and a three-person coding team (one author and two advanced doctoral students) were employed for the analysis. As another form of triangulation, and consistent with past research, those involved in data collection and analysis intentionally maintained different degrees of familiarity with the MHF program itself, the research methodology and the related literature (Goodrich, Hrovat, & Luke, 2014). To demonstrate dependability, or consistency of study results, researchers kept detailed accounts of the data collection and analysis processes undertaken, including the steps used to collapse codes, reduce data and represent relationships between themes. To address transferability, or how well findings apply to other students and educators, the researchers used purposeful maximum variance sampling to solicit participants across differing MHF stakeholder groups and used persistent observation while collecting data until saturation was reached (Hays & Singh, 2012). Lastly, to address confirmability or assurance that findings reflect the participants in the study, the researchers utilized prolonged engagement with research participants, bracketing and participant member checking as part of data analysis. Finally, thick description was used when reporting the findings (Lincoln & Guba, 1985).

Participants

Participants in this study were working and living in three different regions of Malawi (i.e., Lilongwe, Michinji and Salima) and included various stakeholders—five MHF master trainers, twelve MHF trainers, seven MHFs, seven MHF beneficiaries and nine MHF community member stakeholders, who included parents, school personnel and government officials. Twenty-four participants were males and sixteen were females; seven of the participants were children or adolescents. Researchers did not ask participants to identify their ages in order to be culturally responsive to customs in Malawi.

Master trainers are the highest level of trainers in the MHF program. They are required to have a minimum of a master's degree in a mental health field and significant teaching experience, or they can be included in the Malawi program if they have significant experience with the MHF program. Master trainers are required to take part in additional training, which includes a teaching demonstration and receiving feedback on their subject matter knowledge and interactive skills. In addition, in order to be fully vested in the MHF program, they are required to take part in a co-training exercise. All master trainers were highly placed administrators in the Malawian Ministry of Education or were upper-level staff at an institution dedicated to working with youth and the school system.

MHF trainers have a bachelor's degree or its equivalent in a mental health-related field, experience as trainers, and are required to attend additional instruction that includes a teaching skills demonstration. MHF trainers in the current study were teachers, guidance teachers and head teachers (Malawian reference to school principals) who worked in schools participating in the MHF program.

Lastly, MHFs have been instructed in the full MHF curriculum and completed all curriculum requirements. MHF beneficiaries in this study were learners (Malawian reference to students) in schools that incorporated the MHF program. MHF community stakeholders were parents or village leaders who were familiar with the MHF program and able to discuss its effects on their children and communities.

Researcher Stance

In presenting ethnographic results, it is imperative to discuss the researchers' characteristics due to their potential to influence data collection and analysis. One *outside researcher* had no prior experience with the MHF curriculum and was intentionally included in an effort to reduce researcher bias. All four researchers identified as Caucasian doctoral-level counseling professionals from the United States. Two female researchers identified as doctoral-level school counselor educators with previous experience working as school counselors, and two researchers (one male and one female) identified as employees of NBCC International (a division of NBCC). All four researchers had professional experiences focused on the development of counseling within an international context and shared an interest in better understanding how the MHF program impacted stakeholders in Malawi. Two of the researchers had previous professional relationships with the partnering organization in Malawi where the MHF training took place.

As part of the research development, all four researchers met to discuss their respective positions and how their experiences might impact beliefs and perceptions related to the study. Intentional efforts were made to bracket and triangulate perspectives throughout the research process for the purpose of identifying and mitigating biases that could interfere with the project (Hays & Singh, 2012).

Sampling and Data Collection

The sole inclusion criterion for the project was for participants to be MHF stakeholders in Malawi since each stakeholder group could provide a unique perspective. The researchers used purposeful sampling to identify potential participants in two different ways. Prior to leaving the United States, the research team contacted the partnering MHF organization in Malawi to discuss the project and make arrangements for the research visit. During these contacts, the partnering organization agreed to review their records of the MHF master trainers, MHF trainers and MHFs to identify potential participants. Additionally, the partnering organization worked with collaborating schools to solicit potential MHF beneficiary and MHF community member stakeholder participants. Convenience sampling was used based on participant availability at schools (both parents and children) and related organizations. One quarter of the participants ($n = 10$) were interviewed individually to encourage open dialogue. Three quarters of the participants ($n = 30$) took part in both individual interviews and focus groups. As noted above, the partnering MHF organization solicited participants for this project and scheduled potential participants during the five-day research visit. Potential participants were provided with information about the research and an informed consent or assent and asked if they would participate in an audiotaped interview about their experiences with the MHF program. As part of the signed consent, all participants were informed of the voluntary nature of this research and their right to withdraw from participation at any time.

All interviews and focus groups were conducted in person by one or two of the researchers using a semi-structured research protocol. Interviewees were selected by their availability and convenience. Focus groups were conducted at either a convenient administrative building or classrooms at MHF-participating schools. Each of the 10 interviews began with one of the researchers asking the following open, general question: "Can you please describe what it was like to train/provide/receive MHF services?" After this question, the researchers followed up with probes from the semi-structured research guide that consisted of five areas, including the first question, with follow-up questions (probes) for each area. Another example of a question later in the interview was the following: "What has surprised you about MHF services?" If time permitted, the researchers ended the interview with a question that allowed individual interviewees or focus groups to address anything not discussed in the five areas; for example: "Is there anything additional that you thought we would ask that we did not?" There were between six and nine potential probes that could follow each of the five areas. The following is an example of a probe following the initial question: "On a scale of 1 to 10, how satisfied were you with your MHF experience?" Probes also were open-ended, such as, "What might have made your experience with MHF implementation better?" Consistent with the institutional review board-approved research protocol, researchers tried to use probes from all five areas outlined, but consistent with qualitative research design, not all questions were asked of all participants in the same order. This flexible interview style has been used in past research, permitting researchers to probe and follow topics introduced by participants (see Goodrich et al., 2014).

Focus groups were used as a culturally responsive strategy to facilitate the sharing of multiple perspectives and to promote conversations about a topic which, given customs and cultural practices, might be more challenging to discuss in an individual interview (Bogdan & Biklen, 2006). Focus groups were scheduled based on the participants' availability and generally delineated by stakeholder group (i.e., other MHF trainers, MHFs, MHF beneficiaries, and community stakeholders). The number of participants in each of 10 focus groups ranged from three to 12 participants, with an average of five per focus group. The total number of focus groups was dependent on the combined schedules of participants and the need to balance the overall schedule with the necessity of researcher travel to conduct interviews in locations most convenient and appropriate for the participants. The

use of a semi-structured focus group research guide also allowed researchers to ask specific questions that focused on predetermined key topics related to the study, while also maintaining flexibility to follow up on topics that emerged from participants. Similarly, the 10 focus groups all began with the question, “As you reflect on your own experiences as MHF stakeholders, what is significant?” and then proceeded with probes based on the semi-structured research guide. Both interviews and focus groups were audiotaped in their entirety and conducted in English. Individual interviews averaged 35 minutes, ranging from approximately 20–60 minutes in length. Focus groups averaged 50 minutes, with a range of approximately 30–75 minutes. All individual interviews and focus groups were transcribed verbatim by a team of transcriptionists associated with the study.

Data Analysis

Data analysis began on site in Malawi during the data collection process, with the on-site researchers debriefing about patterns and themes as well as their reflections at the end of each day of data collection. After interviews and focus groups were transcribed, the outside researcher created a consensus coding procedure (Hays & Singh, 2012) similar to that used in past studies (Goodrich et al., 2014; Luke & Goodrich, 2013) in which she and two advanced doctoral students trained in ethnographic research each performed the initial coding independently. The process began with each coding team member reading and rereading the data to become familiar with the content and then conducting initial coding using constant comparative methods (Bogdan & Biklen, 2006). Therefore, throughout the initial stage of the analysis, all three coders used line-by-line open coding (e.g., Fassinger, 2005) and compared codes within and across transcripts. This process ensured triangulation, as three different individuals viewed all data.

Although the coding team moved back and forth between the coding stages, the second stage of coding involved the coding team meeting weekly during the coding process. Consensus meetings were conducted using a modified Miles and Huberman (1994) approach to discuss the emergent codes, clarify questions and identify key quotes and reflections on the data, as well as refine the next steps in the research process. Once all transcripts were coded and discussed, the third coding stage began. During the third stage, axial coding was utilized to group and collapse the initial codes, and to form larger categories or themes (Bogdan & Biklen, 2006). The final step of analysis involved developing operational definitions for each theme (Hays & Singh, 2012) and soliciting feedback through peer debriefing and member checking. The feedback received through both peer debriefing and member checking was considered and incorporated into the findings.

Results

In general, the results revealed that the 40 MHF participants in Malawi all agreed that the MHF program was valuable. Participants unanimously noted appreciation for the MHF program and the vital educational role it served in their communities. For example, one adult participant noted, “I am very satisfied with [the] MHF program: It’s a 10 [on a scale of 1–10, with 10 being the best].” Participants also described what made the MHF program implementation successful, with one adult participant stating, “MHF is contributing positively, not only to the access of education, but [to] the quality of education.” Additionally, participants reported that there would be negative consequences should the MHF program discontinue. Illustrating the significance of the MHF program and his appreciation for it, another adult participant stated, “It is our prayer that this program should continue. I know sometimes resources are limited, but I know God is going to help us.”

More specifically, four interrelated themes emerged to illustrate the MHF participants' appreciative beliefs about and experiences with the MHF program. The first theme, *Malawian cultural history and context*, served as grounding for three additional themes: *resources and needs*, *processes* and *outcomes*. Participants explained how these themes interacted with and influenced each other.

MHF Themes

Malawian cultural history and context. One adult participant described how the MHF program was culturally congruent as follows:

There is a culture of working together. . . . This program . . . has some of the components such as stress, distress, disorders . . . it helps people to identify the signs and symptoms which show that this person is stressed [or] distressed. . . . African culture says, "We are because you are," meaning that we belong to each other . . . meaning that if you see a person showing signs of sadness, you must quickly go in and help.

Another adult participant echoed the idea that the MHF program was interacting within the unique Malawian educational context by saying, "We have packed classes. . . . It's very difficult for a teacher to reach out. . . . Together with the MHF program and the training of teachers . . . they can respond." Still another adult participant explained that before the MHF trainings,

they [teachers] didn't know that a learner goes through a lot of experiences, right from their homes and on their way to school. . . . They have experiences that need MHF. So the teacher is now aware of handling the learner as a human being, as somebody . . . that is available for their assistance.

Participants also described how the MHF program was adapted to contextual needs in Malawi. One adult participant noted the realism in the MHF training, saying, "Everything that we do and say in trainings, or everything around [the] MHF program, is based on real-life issues." One of the strongest features of the MHF program is its adaptability to cultural contexts. MHF clubs were created in Malawian schools by guidance teachers, teachers, and administrators who had completed MHF training. The clubs are a place where MHFs teach mental health skills to learners and provide a safe place for learners to talk about school and family concerns. Several of the clubs have organized performances for other students and the community using song and dance, an important contextual part of Malawian culture, to illustrate common concerns and the use of MHF skills in addressing these matters.

Participants also discussed specific cultural meanings and social practices as well as context-specific activities within the schools and communities where MHF was implemented. A focus group of learners described the activities they did in their MHF club, and one learner began by saying:

My poem is based on [a] true story of my friend who [was] . . . always stressed when we had class, wasn't concentrating, always feeling down . . . so, I tried to ask him what his problem was and then I went to a teacher. . . . The patron helped him . . . and now he is doing pretty well. . . . I tried to give him . . . some tips how he could manage stress on his own, like telling him to sometimes listen to some music, do some physical exercises . . . and then after that . . . I referred him to the teacher.

Another learner described a story he developed based on MHF content. He explained that he had a friend who had failed a test and who was worried about going home and telling his father, whom he

believed would be angry. The learner stated that he referred his friend to a teacher who successfully met with the parents and his friend about the test score.

Resources and needs. Bird et al. (2011) have shared that African health workers believe that mental health resources are desperately lacking. Participants discussed examples of invested individuals and MHF programming, and articulated specific ideas about the materials and adaptations desired for the MHF program in the future. One adult participant spoke about MHFs as an asset, saying, “MHFs are creative, [and] like [using a] curriculum that is more simplified [the MHF curriculum is now offered in 1-day formats for communities and schools].” Participants also described the receptivity of people and educational communities as a significant resource. For example, one adult participant said, “The schools are very interested and communities are eager to be involved. They are open to . . . MHF.” Another adult participant described something similar within the community, saying, “So far, we engaged the traditional leaders in communities to say there’s this program. . . . We have talked to them and I think they would be interested in the training . . . because this time we talked to the chiefs.” Expanding on this idea, another adult participant noted,

I am sure this program is even extending [beyond] the learners. Even the parents also benefit from the program. Because we can tell the learner, and the learner goes to their parent. But if the parent has no idea about it, it would be so difficult. So, also looking at even the parent and community should be synthesized . . . so they know actually what we mean when we talk about mental health. . . . The teachers, the learners and the parents . . . join together [and] they will be able to assist the learner.

Participants also described how their experience of the MHF program was influenced by the need for more tangible resources (e.g., materials, personnel, transportation). One adult participant reported,

Because the whole program is . . . 19 modules, we ask the office to at least produce one for the school so that we can have it in the building. . . . We have loaded them all on our computers, but access isn’t possible by every teacher.

In addition, many participants expressed a desire for the MHF program to incorporate transportation as one of the provided services, to improve communication between MHFs, and to increase dissemination of MHF information. For example, an adult participant suggested, “If other zones [regions or geographic districts] also [had] mental health facilitation, that could assist [with] ideas.” Another adult participant commented similarly, “More and more teachers are getting [MHF] and it’s very helpful. Maybe to travel to see one another or meet, to talk about what we are each doing—that would be good.” Adult participants explained the purpose of travel for MHF collaboration, stating that it would be helpful if the schools involved with MHF could meet at both the district and regional levels to share ideas and that this would benefit not only those involved, but also those outside of the program’s current involvement.

Additionally, even though all MHF participants expressed a desire for more MHF programming, participants described how less tangible resources and needs (e.g., mental health and education status, service demands and credentials) influenced their experience of MHF. For example, an adult participant noted that language fluency was one such resource that could expand access to the MHF trainings, commenting, “The other thing that I think you should know in order for your project to benefit . . . you [MHF program] should learn our language . . . so that you can communicate with

those village headmen because most of them do not speak English.” (The MHF curriculum has been translated into 11 languages, including Swahili.)

Several participants also explained the importance of religious institutions in Malawi, offering recommendations for their involvement in MHF service delivery. One adult participant said, “You should take it [to] religious institutions because they understand there [are] some religious beliefs which prohibit children from going to school. So, by targeting these religious institutions you can easily reach the minds of the young ones.”

Processes. Participants distinguished various MHF-related processes as those consisting of psychoeducational helping, those linked to larger community development efforts, and those focused on specific strategies for spreading the MHF message more broadly. One child participant said, “In the MHF club we learn about how we can . . . advise our friends or how we can . . . [have] good behavior.” A second child participant added, “We are supposed to talk, to show people who are drinking or smoking to stop this bad behavior.” A third child participant offered, “We learn more about having good friends who have good behavior.”

Participants also noted additional educational processes related to MHF. One adult participant stated, “So, the program is developing leadership. It is helping people to grow as individuals and helping society to grow, and when it comes to the learners the program has . . . increased . . . access to education.” Another adult participant described the processes of MHF service delivery as follows: “They [beneficiaries] feel as if they are in control because they are decision makers. We just listen, we just guide and they come up with the decision . . . because we cannot make decision[s] for them.” Yet another adult participant described MHF activities, including the ability to make referrals, in the following way: “. . . helping people individually [and] referring people to other sources of assistance. I can do that, because I know . . . many systems that can offer assistance.”

Relatedly, participants also discussed MHF efforts that were incorporated into educational communities. One child participant described the community process of singing and sharing MHF messages as follows: “I feel good . . . when . . . we sing songs. Songs are more about what MHF [is], so people can remember what we sing and if people drink or smoke they can stop because of the song.” Other child participants demonstrated something similar, singing an MHF song they had created and performed. One child participant described how social role modeling was an important process in MHF service delivery, saying, “You become a model to other people and because of that, even those people that we talk to, those people that we teach . . . become recognized in the communities.” Other adult participants described how the MHF program used relational implementation processes, stating, “The MHF program addresses critical thinking, good planning . . . in addition to mental health because now we are looking at the whole person.”

Lastly, participants described the importance of the use of technology when it came to marketing strategies for the MHF program. One adult participant described how “t-shirts with anti-suicide messages” could be produced to serve two aims, indicating that “learners would feel a sense of belonging” and they could “spread the MHF messages to others.” Another adult participant described how communication of the MHF message was important by saying, “We share information about the availability of MHF now by word of mouth, but it could be broken down by different media, like using radio or TV programs.” Another adult participant offered the following perspective on MHF results:

[People] are able to discuss . . . mental health whereas before they could not. Some topics weren't discussed, now they air [them] out. . . . This [is a] very important topic, because once you air [it] out on the radio and in the media or in the newspaper, the ability to discuss [mental health] spreads.

Outcomes. It is of note that participants only identified positive outcomes of the MHF program, without any negative impacts. Participants described the positive global impact by saying, "Every time, every year the MHF training comes and goes, it leaves [the] facilitator, it leaves the community, it leaves the learner, and even the teachers better off than they were before." Another adult participant described the change of perspective provided through the MHF program as follows: "It's an eye opener. . . . It's really a new way of thinking."

Participants also identified manifestation of MHF-related growth and development as personal change, community welfare and larger systemic influences. One child participant described the personal impact as follows: "Personally I have benefitted a lot, because [MHF] touches what I go through on a daily basis." In addition, an adult participant reported, "In my family there is a big improvement. I do respect other people's views and even have to promote my decision-making skills." Another adult participant described a similar change:

I've got two children who are in the [MHF] club. . . . Previously, the boy was very, very, very troublesome. But I've . . . noticed some changes in . . . him and I've never heard about any fight against his friends up to now, so I was wondering what is happening to this child now that he has changed. . . . I came to understand that . . . it is because of this program, the Mental Health Facilitator.

Likewise, a participant described the community benefit when he offered, "The whole school is changing because they are . . . teaching [MHF]. . . . Children as a group . . . are changing. . . . There's no violence . . . as it was before." Still another adult participant described the community outcomes in the following way: "One of the teachers was telling me [that] now [learners] trust him even more than their own parents." Participants identified how the MHF program has been able to shift some community inequities as well. For example, one adult participant indicated the following:

They [MHFs] are able to identify people's problems at the early stage and they are able to give them personal data and some assistance [so] that these people might be healthy. . . . What happens [when people drop out of school] you find out . . . in fact there are more girls [dropping out] than boys . . . because of stressful situations that they have at home or . . . in the schools. So [MHF] programs have [provided] assistance [in] ways [so] teachers can give some guidance.

At times, participants distinguished direct from indirect outcomes. One adult participant offered the following example of direct impact: "The teachers [and] the learners are directly able to understand and know how to handle . . . life challenges."

Discussion

Participants in this study expressed engagement in and appreciation for the MHF program in Malawi schools. Interview responses indicated similarities between the interconnectedness encouraged in the training and the strong interpersonal relationships within the local culture.

Participants also recognized the adaptability of the curriculum and credited the MHF program with dealing with *real issues*. Indeed, they discussed the ways that the MHF training transformed them and provided examples of the influence that the school MHF clubs had on teachers and students. One goal of the MHF program involves culturally appropriate, grassroots efforts to address mental health concerns in resource-poor countries. Based on the comments delivered by the participants, we have initial evidence of meeting that goal in Malawi.

The appropriateness of the research method used in this study provides an important implication. The focus groups allowed researchers to uncover a depth of description about the impact of the MHF project. Had the investigation proceeded with a survey instrument or a more structured interview, the results likely would have been limited. With an ethnographic design, more was uncovered about not only the similarities of the MHF participants' experiences, but also their particular voices and variations on these similarities. Thus, the applied research design (Pelto, 2013) allowed for a constructivist investigation that provided a contextual understanding of the participants in Malawi and their experiences with MHF.

A further implication involves an unforeseen benefit of the MHF curriculum. Participants in this study reported a community of helpers. They credited the MHF training with providing a platform for a shared language and a common desire to support students, families and communities. Furthermore, they discussed how that language and mission have a ripple or multiplier effect that extends the benefits of the MHF curriculum to strengthen various groups.

Participants in this study confirmed that the mission of the MHF training in Malawi's schools was fulfilled—members of a community can learn to help each other. The findings of this study suggest positive results from a compressed training period designed to prepare participants to adapt basic mental health responding skills and knowledge to their community. Current responses to the lack of mental health resources would be augmented significantly by supporting this type of community and school peer assistance preparation, an economical answer to a persistent need for mental health care.

Participants learned the MHF concepts and integrated the information into their daily living. Their explanations incorporated the terms (e.g., "stress, distress, disorder") and the phrases (e.g., "We just listen, we just guide"). The limits of what an MHF can do also were reported as follows: ". . . helping people individually, referring people to other resources of assistance. I can do that." Participants have written songs about mental health and have become role models and leaders in schools and the community since the completion of the MHF training. They demonstrated improvements in their confidence levels and competence in the information they shared; it seems reasonable to acknowledge these improvements as evidence of the positive impact the project has had on their knowledge and skills, as well as their influence on the people they encounter. This study outcome reflects a multiplier effect with which the project was designed. Therefore, based on these interviews and the resultant themes, we conclude that the participants in the MHF program in Malawi exemplify the ideals of the project.

The Study and General Limitations

Although this study used maximum variation sampling to identify a diverse group of MHF stakeholders, all participants were ultimately self-selected. Therefore, it is possible that the experiences of participants agreeing to be part of the study might reflect something outside the scope of this study and as of yet not identified (Bogdan & Biklen, 2006). Additionally, as all interviews were conducted in English, the design may have privileged participants with more formal education.

Accordingly, the convenience sample may not be representative of the perspectives of all MHF stakeholders in Malawi. Also, cross-cultural research can present unique challenges (Goodrich et al., 2014); therefore, it is conceivable that the level of comfort and openness of participants, as well as decisions about the content shared, may have been different had the two researchers who collected data not been Caucasian American women. Although the research team included an independent member not affiliated with NBCC-I or the MHF program in Malawi, it is possible that the positionality of the research team influenced the participants' reported experiences. That said, as noted elsewhere, intentional efforts were undertaken to strengthen the trustworthiness of the study; however, as with results of any single qualitative study, findings should be interpreted with caution (Kline, 2008).

Participants were proud of the designation of being an MHF and saw themselves as assets to their communities, schools and families. But they also pointed out barriers to expansion of the MHF program and shared solutions to some of their concerns. Population-based mental health risk management helps reduce vulnerabilities to stress (see Bradshaw et al., 2006). However, Hinkle (2014) has pointed out the following limitation:

For the MHF program to proliferate, it will take not only training, education and implementation in often less than optimal working conditions, but also savvy negotiation of often poorly managed political systems that experience some level of corruption and inability to impact the universal stigma that plagues mental illness. (p. 12)

The efforts to give mental health the prominence it deserves in Africa in general, and in Malawi in particular, will continue to be a political as well as an intervention-related battle (Dawes, 1986) that needs budgets and services that are adequately translated from policies (Bird et al., 2011).

Although the MHF program in Malawi appears to have positive outcomes to date, political support will be needed to realize the program's full potential impact on mental health care (Saraceno et al., 2007). As long as mortality rather than morbidity is the basis for funding for any health problem, mental health will consistently receive less attention (i.e., less funding and fewer services; Bird et al., 2011). Thus, identifying the various levers and entry points (Jenkins et al., 2010) is critical to the sustainability of programs like MHF, in Malawi and elsewhere. Jenkins and colleagues (2010) have reported that mental health "recognition by international donors and the African Union of the importance of mental health to the [sub-Saharan] region would be extremely helpful in eliciting and pooling resources for this crucially underfunded area" (p. 233). Moreover, it is important that mental health policies (Gureje & Alem, 2000) and population-based mental health training not sit on the proverbial shelf gathering dust. Hinkle (2014) has reported that "unfortunately, not even the laudable efforts of the WHO or United Nations have been able to bring countries that are in desperate need of basic mental health care together effectively," which "underscores the need for urgent development of grassroots community mental health programs" (p. 12).

Unfortunately, we did not collect specific data as to how many guidance teachers and head teachers participated in the study. Future researchers could find that differences among these two groups of teachers exist.

Conclusion

The MHF program is community-based training that includes basic, universally applicable and context-specific skills. All 40 adult and child MHF stakeholders in Malawi suggested that the MHF

program had a positive impact in their lives, schools and communities. Participants' identification of four interrelated themes—the responsiveness to the Malawian cultural history and context, the availability and limitations of resources, the processes involved in the implementation of the MHF program, and the varied outcomes—begin to illustrate the ways in which the MHF program has been incorporated into school and community contexts, and identify participants' beliefs about what might be necessary to strengthen and expand the MHF program in this country. Because the MHF program was originally developed to address the unmet mental health needs of individuals in an international context, and trainings have been conducted in 25 countries to date, studies such as this, as well as future quantitative research, can be conducted elsewhere to better understand the ways in which the program is meeting its objectives and to identify the types of support that could be provided to MHFs and human services-related advocacy efforts around the world (Hinkle, 2014; Lee, 2012).

Mental health resource allocations are often haphazard in African countries (Lund & Flisher, 2006); however, Patel et al. (2007) have indicated that the evidence supports the cost-effectiveness of mental health intervention, and the current study reports this potential in the schools in Malawi. Mental health cost-effectiveness also is reflected by a select number of other sub-Saharan countries (e.g., Tanzania, Kenya) that have integrated mental health into basic health service delivery and have set an admirable example of systematic implementation of community mental health service delivery (Jenkins et al., 2010). Community caregiving for mental stress, distress and disorders is often uncompensated and has tremendous public health value, since such caregiving can offset expensive services and assist shorthanded healthcare professionals (Viana et al., 2013). This reality has been demonstrated thus far in the schools in Malawi.

Future Directions in Malawi

More traditional healers should be incorporated into mental health services in Malawi (MacLachlan et al., 1995), a perspective that is reflected by some of the participants' comments. Integrating traditional health care (i.e., indigenous healers) can impact people in ways that Western approaches do not (Gureje & Alem, 2000; Swartz, 2006). Community mental health care should take into account the beliefs of those being served, and both traditional and more modern progressive strategies need to be integrated. *Tropical tolerance*, or entertaining competing explanations of mental illness, is imperative when Westerners are assisting with the implementation of intervention programs (MacLachlan et al., 1995), using the *emic*, or worldview of the person, approach.

In Africa, a large proportion of the population does not receive mental health services for four basic reasons—first, few services are available (*resources and needs*); second, when services are sought out they are inadequate (*outcomes*); third, people often prefer self-care and traditional healers (*processes*); and lastly, stigma leads people to hide their mental health problems (*processes and outcomes*; Bird et al., 2011). These reasons are all relevant to school children and communities in that mental health can no longer be ignored as a building block of population health as well as social, educational and economic development (Lund, 2010). This study demonstrates that the MHF program addresses many of these concerns and is making at least a modest impact in Malawi. It would be short-sighted not to acknowledge that mental health problems are related to poverty, marginalization, social disadvantage, reductions in economic productivity and the interruption of educational processes (Alonso, Chatterji, He, & Kessler, 2013; Baingana & Bos, 2006; Bird et al., 2011; Breslau et al., 2013; Friedman & Thomas, 2009; Hinkle, 2014; Patel et al., 1997). These factors are even more worrisome in countries like Malawi that have seen poverty levels rise in recent years (Mattes, 2008). Although the MHF strategy is clearly challenged by these factors, the program has demonstrated an impact on Malawian school children that cannot be denied.

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The Benefits of Implementing a Feedback Informed Treatment System Within Counselor Education Curriculum



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Counselor education departments have a unique opportunity to implement feedback informed treatment (FIT) systems that serve as continual assessment procedures by informing counselors, clients, supervisors and educators about client functioning and progress toward goals. These systems hold potential benefits within counselor training such as a positive impact on supervision, student development and student learning outcome evaluation. This article contains an overview of what a FIT system is, reviews of the psychometric properties and steps for administering and scoring three main FIT systems, and a synopsis of the potential benefits and utility of FIT systems within counselor education. Implications for counselor education are discussed.

Keywords: feedback informed treatment (FIT), counselor education, supervision, counselor training, student development

Implementing continuous feedback loops between clients and counselors has been found to have significant impact on the effectiveness of counseling (Shimokawa, Lambert, & Smart, 2010). Feedback informed treatment (FIT) systems are beneficial to counselors and clients as they provide clinicians with a wide array of client information such as which clients are plateauing in treatment, deteriorating or at risk for dropping out (Lambert, 2010; Lambert, Hansen, & Finch, 2001). Access to this type of information is imperative because counselors have been shown to have poor predictive validity in determining if clients are deteriorating during the counseling process (Hannan et al., 2005). Furthermore, recent efforts by researchers show that FIT systems based inside university counseling centers have beneficial training features that positively impact the professional development of counseling students (Reese, Norsworthy, & Rowlands, 2009; Yates, 2012). To date, however, few resources exist on how to infuse FIT systems into counselor education curriculum and training programs.

This article addresses the current lack of information regarding the implementation of a FIT system within counselor education curricula by discussing: (1) an overview and implementation of a FIT system; (2) a comprehensive review of the psychometric properties of three main FIT systems; (3) benefits that the use of FIT systems hold for counselors-in-training; and (4) how the infusion of FIT systems within a counseling curriculum can help assess student learning outcomes.

Overview and Implementation of a FIT System

FIT systems are continual assessment procedures that include weekly feedback about a client's current symptomology and perceptions of the therapeutic process in relation to previous counseling

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session scores. These systems also can include other information such as self-reported suicidal ideation, reported substance use, or other specific responses (e.g., current rating of depressive symptomology). FIT systems compare clients' current session scores to previous session scores and provide a recovery trajectory, often graphed, that can help counselors track the progress made through the course of treatment (Lambert, 2010). Some examples of a FIT system include the Outcome Questionnaire (OQ-45.2; Lambert et al., 1996), Session Rating Scale (SRS; Miller, Duncan, & Johnson, 2000), Outcome Rating Scale (ORS; Miller & Duncan, 2000), and the Counseling Center Assessment of Psychological Symptoms (CCAPS; Locke et al., 2011), all of which are described in this article.

Variety exists regarding how FIT systems are used within the counseling field. These variations include the selected measure or test, frequency of measurement, type of feedback given to counselors and whether or not feedback is shared with clients on a routine basis. Although some deviations exist, all feedback systems contain consistent procedures that are commonly employed when utilizing a system during practice (Lambert, Hansen, & Harmon, 2010). The first procedure in a FIT system includes the routine measurement of a client's symptomology or distress during each session. This frequency of once-per-session is important as it allows counselors to receive direct, continuous feedback on how the client is progressing or regressing throughout treatment. Research has demonstrated that counselors who receive regular client feedback have clients that stay in treatment longer (Shimokawa et al., 2010); thus, the feedback loop provided by a FIT system is crucial in supporting clients through the therapeutic process.

The second procedure of a FIT system includes showcasing the results of the client's symptomology or distress level in a concise and usable way. Counselors who treat several clients benefit from accessible and comprehensive feedback forms. This ease of access is important because counselors may be more likely to buy in to the use of feedback systems if they can use them in a time-effective manner.

The last procedure of FIT systems includes the adjustment of counseling approaches based upon the results of the feedback. Although research in this area is limited, some studies have observed that feedback systems do alter the progression of treatment. Lambert (2010) suggested that receiving feedback on what is working is apt to positively influence a counselor to continue these behaviors. Yates (2012) found that continuous feedback sets benchmarks of performance for both the client and the counselor, which slowly alters treatment approaches. If the goal of counseling is to decrease symptomology or increase functioning, frequently observing objective progress toward these goals using a FIT system can help increase the potential for clients to achieve these goals through targeted intervention.

Description of Three FIT Systems

Several well-validated, reliable, repeated feedback instruments exist. These instruments vary by length and scope of assessment, but all are engineered to deliver routine feedback to counselors regarding client progress. Below is a review of three of the most common FIT systems utilized in clinical practice.

The OQ Measures System

The OQ Measures System uses the Outcome Questionnaire 45.2 (OQ-45.2; Lambert et al., 1996), a popular symptomology measure that gauges a client's current distress levels over three domains: symptomatic distress, interpersonal relations and social roles. Hatfield and Ogles (2004) listed the

OQ 45.2 as the third most frequently used self-report outcome measure for adults in the United States. The OQ 45.2 has 45 items and is rated on a 5-point Likert scale. Scores range between 0 and 180; higher scores suggest higher rates of disturbance. The OQ 45.2 takes approximately 5–6 minutes to complete and the results are analyzed using the OQ Analyst software provided by the test developers. The OQ 45.2 can be delivered by paper and pencil versions or computer assisted administration via laptop, kiosk, or personal digital assistant (PDA). Electronic administration of the OQ 45.2 allows for seamless administration, scoring and feedback to both counselor and client.

Internal consistency for the OQ 45.2 is $\alpha = 0.93$ and test-retest reliability is $r = 0.84$. The OQ 45.2 demonstrated convergent validity with the General Severity Index (GSI) of the Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1983; $r = .78$, $n = 115$). The Outcome Questionnaire System has five additional outcome measures: (1) the Outcome Questionnaire 30 (OQ-30); (2) the Severe Outcome Questionnaire (SOQ), which captures outcome data for more severe presenting concerns, such as bipolar disorder and schizophrenia; (3) the Youth Outcome Questionnaire (YOQ), which assesses outcomes in children between 13 and 18 years of age; (4) the Youth Outcome Questionnaire 30, which is a brief version of the full YOQ; and (5) the Outcome Questionnaire 10 (OQ-10), which is used as a brief screening instrument for psychological symptoms (Lambert et al., 2010).

The Partners for Change Outcome Management System (PCOMS)

The Partners for Change Outcome Management System (PCOMS) uses two instruments, the Outcome Rating Scale (ORS; Miller & Duncan, 2000) that measures the client's session outcome, and the Session Rating Scale (SRS; Miller et al., 2000) that measures the client's perception of the therapeutic alliance. The ORS and SRS were designed to be brief in response to the heavy time demands placed upon counselors. Administration of the ORS includes handing the client a copy of the ORS on a sheet of letter sized paper; the client then draws a hash mark on four distinct 10-centimeter lines that indicate how he or she felt over the last week on the following scales: individually (personal well-being), interpersonally (family and close relationships), socially (work, school and friendships), and overall (general sense of well-being).

The administration of the SRS includes four similar 10-centimeter lines that evaluate the relationship between the client and counselor. The four lines represent relationship, goals and topics, approach or methods, and overall (the sense that the session went all right for me today; Miller et al., 2000). Scoring of both instruments includes measuring the location of the client's hash mark and assigning a numerical value based on its location along the 10-centimeter line. Measurement flows from left to right, indicating higher-level responses the further right the hash mark is placed. A total score is computed by adding each subscale together. Total scores are graphed along a line plot. Miller and Duncan (2000) used the reliable change index formula (RCI) to establish a clinical cut-off score of 25 and a reliable change index score of 5 points for the ORS. The SRS has a cut-off score of 36, which suggests that total scores below 36 indicate ruptures in the working alliance.

The ORS demonstrated strong internal reliability estimates ($\alpha = 0.87-.096$), a test-retest score of $r = 0.60$, and moderate convergent validity with measures like the OQ 45.2 ($r = 0.59$), which it was created to resemble (Miller & Duncan, 2000; Miller, Duncan, Brown, Sparks, & Claud, 2003). The SRS had an internal reliability estimate of $\alpha = 0.88$, test-retest reliability of $r = 0.74$, and showed convergent validity when correlated with similar measures of the working alliance such as the Helping Alliance Questionnaire-II (HAQ-II; Duncan et al., 2003; Luborsky et al., 1996). The developers of the ORS and SRS have also created Web-based administration features that allow clients to use both instruments online using a pointer instead of a pencil or pen. The Web-based administration also calculates the totals for the instruments and graphs them.

The Counseling Center Assessment of Psychological Symptoms (CCAPS)

The CCAPS was designed as a semi-brief continuous measure that assesses symptomology unique to college-aged adults (Locke et al., 2011). When developed, the CCAPS was designed to be effective in assessing college students' concerns across a diverse range of college campuses. The CCAPS has two separate versions, the CCAPS-62 and a shorter version, the CCAPS-34. The CCAPS-62 has 62 test items across eight subscales that measure: depression, generalized anxiety, social anxiety, academic distress, eating concerns, family distress, hostility and substance abuse. The CCAPS-34 has 34 test items across seven of the scales found on the CCAPS-62, excluding family distress. Additionally, the substance use scale on the CCAPS-62 is renamed the Alcohol Use Scale on the CCAPS-32 (Locke et al., 2011). Clients respond on a 5-point Likert scale with responses that range from *not at all like me* to *extremely like me*. On both measures clients are instructed to answer each question based upon their functioning over the last 2 weeks. The CCAPS measures include a total score scale titled the Distress Index that measures the amount of general distress experienced over the previous 2 weeks (Center for Collegiate Mental Health, 2012). The measures were designed so that repeated administration would allow counselors to compare each session's scores to previous scores, and to a large norm group ($N = 59,606$) of clients completing the CCAPS at university counseling centers across the United States (Center for Collegiate Mental Health, 2012).

The CCAPS norming works by comparing clients' scores to a percentile score of other clients who have taken the measure. For instance, a client's score of 80 on the depressive symptoms scale indicates that he or she falls within the 80th percentile of the norm population's depressive symptoms score range. Because the CCAPS measures utilize such a large norm base, the developers have integrated the instruments into the Titanium Schedule™, an Electronic Medical Records (EMR) system. The developers also offer the instruments for use in an Excel scoring format, along with other counseling scheduling software programs. The developers of the CCAPS use RCI formulas to provide upward and downward arrows next to the reported score on each scale. Downward arrows indicate the client's current score is significantly different than previous sessions' scores and suggests progress during counseling. An upward arrow would suggest a worsening of symptomology. Cut-off scores vary across scales and can be referenced in the CCAPS 2012 Technical Manual (Center for Collegiate Mental Health, 2012).

Test-retest estimates at 2 weeks for the CCAPS-62 and CCAPS-34 scales range between $r = 0.75$ – 0.91 (Center for Collegiate Mental Health, 2012). The CCAPS-34 also demonstrated a good internal consistency that ranged between $\alpha = 0.76$ – 0.89 (Locke et al., 2012). The measures also demonstrated adequate convergent validity compared to similar measures. A full illustration of the measures' convergent validity can be found in the CCAPS 2012 Technical Manual (Center for Collegiate Mental Health, 2012).

Benefits for Counselors-in-Training

The benefits of FIT systems are multifaceted and can positively impact the growth and development of student counselors (Reese, Norsworthy, et al., 2009; Schmidt, 2014; Yates, 2012). Within counselor training laboratories, feedback systems have shown promise in facilitating the growth and development of beginning counselors (Reese, Usher, et al., 2009), and the incorporation of FIT systems into supervision and training experiences has been widely supported (Schmidt, 2014; Worthen & Lambert, 2007; Yates, 2012).

One such benefit is that counseling students' self-efficacy improved when they saw evidence of

their clients' improvement (Reese, Usher, et al., 2009). A FIT system allows for the documentation of a client's progress and when counseling students observed their clients making such progress, their self-efficacy improved regarding their skill and ability as counselors. Additionally, the FIT system allowed the counselor trainees to observe their effectiveness during session, and more importantly, helped them alter their interventions when clients deteriorated or plateaued during treatment. Counselor education practicum students who implemented a FIT system through client treatment reported that having weekly observations of their client's progress helped them to isolate effective and non-effective techniques they had used during session (Yates, 2012). Additionally, practicum counseling students have indicated several components of FIT feedback forms were useful, including the visual orientation (e.g., graphs) to clients' shifts in symptomology. This visual attenuation to client change allowed counselors-in-training to be more alert to how clients are actually faring in between sessions and how they could tailor their approach, particularly regarding crisis situations (Yates, 2012).

Another benefit discovered from the above study was that counseling students felt as if consistent use of a FIT system lowered their anxiety and relieved some uncertainty regarding their work with clients (Yates, 2012). It is developmentally appropriate for beginning counselors to struggle with low tolerance for ambiguity and the need for a highly structured learning environment when they begin their experiential practicums and internships (Bernard & Goodyear, 2013). The FIT system allows for a structured format to use within the counseling session that helps to ease new counselors' anxiety and discomfort with ambiguity.

Additionally, by bringing the weekly feedback into counseling sessions, practicum students were able to clarify instances when the feedback was discrepant from how the client presented during session (Yates, 2012). This discrepancy between what the client reported on the measure and how they presented in session was often fertile ground for discussion. Counseling students believed bringing these discrepancies to a client's attention deepened the therapeutic alliance because the counselor was taking time to fully understand the client (Yates, 2012).

Several positive benefits are added to the clinical supervision of counseling students. One such benefit is that clinical supervisors found weekly objective reports of their supervisees helpful in providing evidence of a client's progress during session that was not solely based upon their supervisees' self-report. This is crucial because relying on self-report as a sole method of supervision can be an insufficient way to gain information about the complexities of the therapeutic process (Bernard & Goodyear, 2013). Supervisors and practicum students both reported that the FIT system frequently brought to their attention potential concerns with clients that they had missed (Yates, 2012). A final benefit is that supervisees who utilized a FIT system during supervision had significantly higher satisfaction levels of supervision and stronger supervisory alliances than students who did not utilize a FIT system (Grossl, Reese, Norsworthy, & Hopkins, 2014; Reese, Usher, et al., 2009).

Benefits for Clients

Several benefits exist for counseling clients when FIT systems are utilized in the therapeutic process. The sharing of objective progress information with clients has been found to be perceived as helpful and a generally positive experience by clients (Martin, Hess, Ain, Nelson, & Locke, 2012). Surveying clients using a FIT system, Martin et al. (2012) found that 74.5% of clients found it "convenient" to complete the instrument during each session. Approximately 46% of the clients endorsed that they had a "somewhat positive" experience using the feedback system, while 20% of

clients reported a “very positive” experience. Hawkins, Lambert, Vermeersch, Slade, and Tuttle (2004) found that providing feedback to both clients and counselors significantly increased the clients’ therapeutic improvement in the counseling process when compared to counselors who received feedback independently. A meta-analysis of several research studies, including Hawkins et al. (2004), found effect sizes of clinical efficacy related to providing per-session feedback ranged from 0.34 to 0.92 (Shimokawa et al., 2010). These investigations found more substantial improvement in clients whose counselors received consistent client feedback when compared with counselors who received no client feedback regarding the therapeutic process and symptomology. These data also showed that consistent feedback provision to clients resulted in an overall prevention of premature treatment termination (Lambert, 2010).

Utilization of FIT Systems for Counseling Curriculum and Student Learning Outcome Assessment

The formal assessment of graduate counseling student learning has increased over the past decade. The most recent update of the national standards from the Council for Accreditation of Counseling and Related Educational Programs (CACREP) included the requirement for all accredited programs to systematically track students at multiple points with multiple measures of student learning (CACREP, 2015, Section 4, A, B, C, D, E). Specifically, “counselor education programs conduct formative and summative evaluations of the student’s counseling performance and ability to integrate and apply knowledge throughout the practicum and internship” (CACREP, 2015, Section 4.E). The use of continuous client feedback within counselor education is one way to address such assessment requirements (Schmidt, 2014).

Counseling master’s programs impact students on both personal and professional levels (Warden & Benshoff, 2012), and part of this impact stems from ongoing and meaningful evaluation of student development. The development of counselors-in-training during experiential courses entails assessment of a myriad of counseling competencies (e.g., counseling microskills, case conceptualization, understanding of theory, ethical decision-making and ability to form a therapeutic relationship with clients; Haberstroh, Duffey, Marble, & Ivers, 2014). As per CACREP standards, counseling students will receive feedback during and after their practicum and internship experiences. This feedback typically comes from both the supervising counselor on site, as well as the academic department supervisor.

Additionally, “supervisors need to help their supervisees develop the ability to make effective decisions regarding the most appropriate clinical treatment” (Owen, Tao, & Rodolfa, 2005, p. 68). One suggested avenue for developing such skills is client feedback using FIT systems. The benefit of direct client feedback on the counseling process has been well documented (Minami et al., 2009), and this process can also be useful to student practice and training. Counseling students can greatly benefit from the use of client feedback throughout their training programs (Reese, Usher, et al., 2009). In this way, counselors-in-training learn to acknowledge client feedback as an important part of the counseling process, allowing them to adjust their practice to help each client on an individual basis. Allowing for a multi-layered feedback model wherein the counselor-in-training can receive feedback from the client, site supervisor and academic department supervisor has the potential to maximize student learning and growth.

Providing students feedback for growth through formal supervision is one of the hallmarks of counseling programs (Bernard & Goodyear, 2013). However, a more recent focus throughout

higher education is the necessity of assessment of student learning outcomes (CACREP, 2015). This assessment can include “systematic evaluation of students’ academic, clinical, and interpersonal progress as guideposts for program improvement” (Haberstroh et al., 2014, p. 28). As such, evaluating student work within the experiential courses (e.g., practicum and internship) is becoming increasingly important.

FIT systems provide specific and detailed client feedback regarding clients’ experiences within therapy. Having access to documented client outcomes and progress throughout the counseling relationship can provide an additional layer of information regarding student growth and skill development. For instance, if a student consistently has clients who drop out or show no improvement over time, those outcomes could represent a problem or unaddressed issue for the counselor-in-training. Conversely, if a student has clients who report positive outcomes over time, that data could show clinical understanding and positive skill development.

Student learning outcomes can be assessed in a myriad of ways (e.g., FIT systems, supervisor evaluations, student self-assessment and exams; Haberstroh et al., 2014). Incorporating multiple layers of feedback for counseling students allows for maximization of learning through practicum and internships and offers a concrete way to document and measure student outcomes.

An Example: Case Study

Students grow and develop through a wide variety of methods, including feedback from professors, supervisors and clients (Bernard & Goodyear, 2013). Implementing a FIT system into experiential classes in counseling programs allows for the incorporation of structured, consistent and reliable feedback. We use a case example here to illustrate the benefits of such implementation. Within the case study, each CACREP Student Learning Outcome that is met through the implementation of the FIT system is documented.

A counselor educator is the instructor of an internship class where students have a variety of internship placements. This instructor decides to have students implement a FIT system that will allow them to track client progress and the strength of the working alliance. The OQ 45.2 and the SRS measures were chosen because they allow students to track client outcomes and the counseling relationship and are easy to administer, score and interpret. In the beginning of the semester, the instructor provides a syllabus to the students where the following expectations are listed: (1) students will have their clients fill out the OQ 45.2 and the SRS during every session with each client; (2) students will learn to discuss and process the results from the OQ 45.2 and SRS in each session with the client; and (3) students will bring all compiled information from the measures to weekly supervision. By incorporating two FIT systems and the subsequent requirements, the course is meeting over 10 CACREP (2015) learning outcome assessment components within Sections 2 and 3, Professional Counseling Identity (Counseling and Helping Relationships, Assessment and Testing), and Professional Practice.

A student, Sara, begins seeing a client at an outpatient mental health clinic who has been diagnosed with major depressive disorder; the client’s symptoms include suicidal ideation, anhedonia and extreme hopelessness. Sara’s initial response includes anxiety due to the fact that she has never worked with someone who has active suicidal ideation or such an extreme presentation of depressed affect. Sara’s supervisor spends time discussing how she will use the FIT systems in her work with the client and reminds her about the necessities of safety assessment.

In her initial sessions with her client, Sara incorporates the OQ 45.2 and the SRS into her sessions as discussed with her supervisor (CACREP Section 2.8.E; 2.8.K). However, after a few sessions, she does not yet feel confident in her work with this client. Sara feels constantly overwhelmed by the depth of her client's depression and is worried about addressing the suicidal ideation. Her instructor is able to use the weekly OQ 45.2 and SRS forms as a consistent baseline and guide for her work with this client and to help Sara develop a treatment plan that is specifically tailored for her client based upon the client's symptomology (CACREP Section 2.5.H, 2.8.L). Using the visual outputs and compiled graphs of weekly data, Sara is able to see small changes that may or may not be taking place for the client regarding his depressive symptoms and overall feelings and experiences in his life. Sara's instructor guides her to discuss these changes with the client and explore in more detail the client's experiences within these symptoms (CACREP Section 2.5.G). By using this data with the client, Sara will be better able to help the client develop appropriate and measureable goals and outcomes for the therapeutic process (CACREP Section 2.5.I). Additionally, as a new counselor, such an assessment tool provides Sara with structure and guidance as to the important topics to explore with clients throughout sessions. For example, by using some of the specific content on the OQ 45.2 (e.g., I have thoughts of ending my life, I feel no interest in things, I feel annoyed by people who criticize my drinking, and I feel worthless), she can train herself to assess for suicidal ideation and overall diagnostic criteria (CACREP Section 2.7.C).

Additionally, Sara is receiving feedback from the client by using the SRS measure within session. In using this additional FIT measure, Sara can begin to gauge her personal approach to counseling with this client and receive imperative feedback that will help her grow as a counselor (CACREP, Section 2.5.F). This avenue provides an active dialogue between client and counselor about the work they are doing together and if they are working on the pieces that are important to the client. Her instructor is able to provide both formative and summative feedback on her overall process with the client using his outcomes as a guide to her effectiveness as a clinician (CACREP, Section 3.C). Implementing a FIT system allows for the process of feedback provision to have concrete markers and structure, ultimately allowing for a student counselor to grow in his or her ability to become self-reflective about his or her own practice.

Implications for Counselor Education

The main implications of the integration of FIT systems into counselor education are threefold: (1) developmentally appropriate interventions to support supervisee/trainee clinical growth; (2) intentional measurement of CACREP Student Learning Outcomes; and (3) specific attention to client care and therapeutic outcomes. There are a variety of FIT systems being utilized, and while they vary in scope, length, and targets of assessment, each has a brief administration time and can be repeated frequently for current client status and treatment outcome measurement. With intentionality and dedication, counselor education programs can work to implement the utilization of these types of assessment throughout counselor trainee coursework (Schmidt, 2014).

FIT systems lend themselves to positive benefits for training competent emerging counselors. Evaluating a beginning counselor's clinical understanding and skills are a key component of assessing overall learning outcomes. When counselors-in-training receive frequent feedback on their clients' current functioning or session outcomes, they are given the opportunity to bring concrete information to supervision, decide on treatment modifications as indicated, and openly discuss the report with clients as part of treatment. Gathering data on a client's experience in treatment brings valuable information to the training process. Indications of challenges or strengths with regard to

facilitating a therapeutic relationship can be addressed and positive change supported through supervision and skill development. Additionally, by learning the process of ongoing assessment and therapeutic process management, counselor trainees are meeting many of the CACREP Student Learning Outcomes. The integration of FIT systems into client care supports a wide variety of clinical skill sets such as understanding of clinical assessment, managing a therapeutic relationship and treatment planning/altering based on client needs.

Finally, therapy clients also benefit through the use of FIT. Clinicians who receive weekly feedback on per-session client progress consistently show improved effectiveness and have clients who prematurely terminate counseling less often (Lambert, 2010; Shimokawa et al., 2010). In addition to client and counselor benefit, supervisors also have been shown to utilize FIT systems to their advantage. One of the most important responsibilities of a clinical supervisor is to manage and maintain a high level of client care (Bernard & Goodyear, 2013). Incorporation of a structured, validated assessment, such as a FIT system, allows for intentional oversight of the client–counselor relationship and clinical process that is taking place between supervisees and their clients. Overall, the integration of FIT systems into counselor education would provide programs with a myriad of benefits including the ability to meet student, client and educator needs simultaneously.

Conclusion

FIT systems provide initial and ongoing data related to a client’s psychological and behavioral functioning across a variety of concerns. They have been developed and used as a continual assessment procedure to provide a frequent and continuous self-report by clients. FIT systems have been used effectively to provide vital mental health information within a counseling session. The unique features of FIT systems include the potential for recurrent, routine measure of a client’s symptomatology, easily accessible and usable data for counselor and client, and assistance in setting benchmarks and altering treatment strategies to improve a client’s functioning. With intentionality, counselor educator programs can use FIT systems to meet multiple needs across their curriculums including more advanced supervision practices, CACREP Student Learning Outcome Measurement, and better overall client care.

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Adult Attachment and Parental Bonding: Correlations Between Perceived Relationship Qualities and Self-Reported Anxiety



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Adult attachment and parental bonding have been linked to anxiety disorders, but rarely have these associations been demonstrated in the same study. To fill this gap in the research literature, we utilized several different self-report measures to examine the relationships among adult attachment style, memories of early bonding experiences, and five types of anxiety in a sample of 201 undergraduate psychology students. Significant correlations were found between early bonding memories and secure, preoccupied and fearful attachment styles, but not between early bonding memories and dismissing attachment style. Secure attachment style negatively correlated with every type of anxiety, whereas preoccupied and fearful attachment styles positively correlated with every type of anxiety. Dismissing attachment style did not correlate with any anxiety type. Results also indicated correlations between early bonding memories and both post-trauma and social anxiety symptoms, but there was no relationship between bonding and obsessive-compulsive symptoms, panic or worry.

Keywords: attachment, bonding, anxiety, parental, relationships

The attachment work of John Bowlby (1988) affords clinicians and researchers the opportunity to view psychopathology as relationally based, rather than as unique to the individual to whom a specific label has been given. Anxiety is a particularly fitting place to focus this type of investigation since understanding the meaning and function of anxiety within the context of human development lies at the center of attachment theory. Bowlby integrated the time-honored notion that the early child-caregiver bond is critical to the child's survival and well-being into his knowledge of scientific facts and meaning and provided an interpersonal understanding of healthy as well as pathological development. Bowlby's thoughts, flowing as they did from psychoanalysis and object relations, revolutionized the analytic world by removing dysfunction from the center of the individual and placing it in the space between interacting humans. Through the use of instruments designed to measure attachment style, early bonding memories and five different types of anxiety, this study utilizes Bowlby's viewpoint as a springboard from which to examine the correlations between adults' perception of their past and present relational experiences and their current levels of anxiety.

Relationship of Attachment and Bonding to Anxiety Disorders

There is a sizeable body of research suggesting a relationship between anxiety and attachment or bonding experiences (e.g., Cassidy, Lichtenstein-Phelps, Sibrava, Thomas, & Borkovec, 2009; Cavedo & Parker, 1994; Chorpita & Barlow, 1998; Eng & Heimberg, 2006; Eng, Heimberg, Hart, Schneier, & Liebowitz, 2001; Manicavasagar, Silove, Wagner, & Hadzi-Pavlovic, 1999; Marazziti et al., 2007; Meites, Ingram, & Siegle, 2012; O'Connor & Elklit, 2008; Pacchierotti et al., 2002; Parker, 1979; Renaud, 2008; Seganfredo et al., 2009; Turgeon, O'Connor, Marchand, & Freeston, 2002). We will first

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review the literature explicating the anxiety–attachment paradigm and then consider research that has looked at anxiety and bonding, before turning to the studies that have incorporated measures of both attachment and bonding in an examination of individuals with specific anxiety states.

Anxiety and Attachment

Substantial investigation has considered anxiety-attachment associations. Potential links have been found between generalized anxiety disorder (GAD) and attachment, with indications that increasing perceptions of difficult early attachment experiences are tied to a risk for GAD (Cassidy et al., 2009). Furthermore, investigation has shown individuals with GAD to report less secure parental attachment, less trust, increased difficulty with communication, and more alienation than individuals without the disorder (Eng & Heimberg, 2006). In other work, participants with panic disorder (PD), obsessive-compulsive disorder (OCD), major depressive disorder or bipolar disorder were found to have higher levels of preoccupied attachment style, and participants without these conditions had higher levels of secure attachment (Marazziti et al., 2007). Social anxiety also has been considered in light of adult attachment, and individuals with an anxious-preoccupied attachment style have reported higher levels of social fear and avoidance than participants with a secure attachment style (Eng et al., 2001).

Attachment anxiety and avoidance have been connected to increased symptoms of post-traumatic stress disorder (PTSD) in veterans (Renaud, 2008). However, the vast majority of participants in Renaud's (2008) study reported a preference for attachment avoidance (either fearful or dismissing), and PTSD symptoms were higher among these individuals. In young adults, secure attachment has been associated with fewer PTSD symptoms; however, dismissing and fearful attachment preferences have been tied to a higher number of PTSD symptoms (O'Connor & Elklit, 2008). Associations of this nature may indicate that secure attachment offers potential protection against the development of PTSD, whereas dismissing and fearful attachment may increase risk (O'Connor & Elklit, 2008).

Anxiety and Bonding

A noteworthy number of studies have looked at the relationship between anxiety and bonding. For instance, associations have been demonstrated between both PD and GAD and the condition of affectionless control (lack of attunement and overprotection) by parents (Chorpita & Barlow, 1998). In other research (Chambless, Gillis, Tran, & Steketee, 1996), people with PD or OCD also most commonly perceived their parents' style of caregiving to fall within the affectionless control category. In addition, individuals who rated their mothers most highly on the overprotection scale experienced the earliest onset of anxiety disorders.

Associations have been found between mother overprotection and PD in men and between father overprotection and PD in women (Seganfredo et al., 2009), and a relationship has been noted between perception of parental overprotection and adult symptoms of separation anxiety (Manicavasagar et al., 1999). Furthermore, in a study matching participants diagnosed with PD and healthy controls, individuals with PD reported lower parental care than those without the disorder (Pacchierotti et al., 2002). A relationship also has been demonstrated between low parental care and generalized fear among a large sample of undergraduates (Meites et al., 2012). Other researchers have conceded that the development of GAD may be related to unfavorable parental behavior (Silove, Parker, Hadzi-Pavlovic, Manicavasagar, & Blaszczynski, 1991). However, they also suggested the alternative possibility that maternal overprotection could be a response to early signs of anxiety in people with PD.

Early bonding memories and obsessionality have been shown to be related as well. Positive correlations were noted between obsessionality and parental overprotection for both males and

females, and between obsessionality and maternal care in females; however, negative correlations were found between obsessionality and parental care in males (Cavedo & Parker 1994). In other work, outpatients with OCD or PD remembered their parents as being more overprotective than did a control group of non-anxious participants, leading researchers to the conclusion that parental overprotection may increase the risk that children will develop anxiety disorders (Turgeon et al., 2002). However, in another study investigating the link between early bonding memories and obsessive-compulsive behaviors in a non-clinical population, researchers concluded that low parental care may represent a risk for emotional suffering in adulthood, but does not predict a specific psychiatric disorder (Mancini, D'Olimpio, Prunetti, Didonna, & Del Genio, 2000).

The relationship between early bonding memories and agoraphobia or social phobia also has been assessed (Parker, 1979). Parker (1979) found that people with agoraphobia reported their mothers to be less caring than did participants in the control group, but differed in no other way. Individuals with social phobia reported both their mothers and fathers to be less caring and more overprotective than did the control group individuals.

Anxiety, Attachment and Bonding

Despite substantial evidence of correlation between adult attachment and anxiety and between early bonding memories and anxiety, fewer empirical studies explicitly differentiate between adult attachment and parental bonding constructs, or consider both in relation to specific anxiety types. Here, we will review studies that have investigated the association between anxiety and both adult attachment and parental bonding.

Myhr, Sookman, and Pinard (2004) examined adult attachment and early parental bonding memories in a sample of individuals with OCD or depression. More relationship anxiety was evident among participants with OCD or depression and more dependency discomfort (avoidance) was seen in participants with depression and in unmarried participants with OCD. With regard to early bonding memories, individuals with OCD did not differ from controls, and there was no clear correlation between adult attachment and early bonding memories. The researchers suggested two potential reasons for this finding: (a) the bonding instrument they were using may not have measured relational elements necessary for adult attachment security; or (b) the responses may have reflected a bias based on attachment security or specific diagnosis.

Ghafoori, Hierholzer, Howsepian, and Boardman (2008) investigated the protective value of adult attachment, parental bonding and divine love in adjustment to trauma experienced in the military. They found that current PTSD symptoms in veterans who participated in the study negatively correlated with secure attachment and positively correlated with insecure attachment. However, no significant relationship emerged between current PTSD symptoms and early childhood bonding memories. Findings did indicate that adult attachment style contributes to the severity of PTSD and that perceived parental care moderates that relationship (i.e., since parental care negatively correlated with insecure attachment).

Yarbro, Mahaffey, Abramowitz, and Kashdan (2013) used online self-report measures to explore the relationship between memories of low care in early child-caregiver relationships and reports of obsessive beliefs in a sample of undergraduate college students. Their findings indicated significant associations between the two variables, lending support to the idea that there is a relationship between obsessive beliefs and affectionless and neglectful parenting (Yarbro et al., 2013). The researchers also considered whether attachment anxiety or avoidance may mediate this relationship. Through the use of hierarchical regression models, they demonstrated that attachment anxiety

may serve as a partial mediator of the relationship between memories of low care and self-reported obsessive beliefs, but that attachment avoidance did not function in this way (Yarbro et al., 2013).

As well as providing additional support in favor of the relationship between attachment, bonding and anxiety, the Myhr et al. (2004), Ghafoori et al. (2008) and Yarbro et al. (2013) studies lead us to consider a further possibility. We offer the idea that adult attachment and parental bonding may address qualitatively distinct aspects of human interaction, especially when considered in light of different types of anxiety. The work of the aforementioned authors highlights the need to investigate adult attachment and parental bonding as distinct yet potentially interdependent constructs that illuminate, from different viewpoints, the intricacies of interpersonal connection.

Constructs of Adult Attachment and Parental Bonding

The construct of adult attachment may be understood as resolving to two primary dimensions: model of self and model of others (Bartholomew & Horowitz, 1991). In Bartholomew and Horowitz's (1991) work, the degree of positivity an individual experiences with regard to his or her representation of self meets the degree of positivity that person experiences with regard to his or her representation of others to yield four potential patterns of preference in relationships. Those who have a positive view of themselves and of others are at ease in intimate and in autonomous situations and have a secure style of attachment. Individuals with a preoccupied style of attachment have a negative view of self, but see others in a positive light; they look to their intimate relationships for fulfillment and validation. The fearful style of attachment involves a wish for closeness that remains unfulfilled due to fears of rejection, whereas the dismissing style is typified by denial that intimacy with others is needed or desired. According to Bartholomew and Horowitz's (1991) model, the fearful style reflects a negative view of self (undeserving of the love and support of others), as well as a negative view of others, whereas the dismissing style reflects a positive view of self (minimizing the awareness of needs or distress) and a negative view of others.

The construct of parental bonding and its classificatory scheme also can be understood as resolving to two primary dimensions: (perceived) parental care and (perceived) parental overprotection (Parker, Tupling, & Brown, 1979). The dimensions are presumed to contribute to the bond that develops between a parent and a child early in life and, when considered together, result in four potential bonding experiences. Optimal bonding is said to occur when parental care (emotional warmth and acceptance) is high and overprotection (psychological control and intrusion) is low; whereas affectionate constraint refers to bonding in which parents are highly overprotective of their children while exhibiting some caring behaviors toward them (Gladstone & Parker, 2005). When parental care and overprotection are both low, the parent-child bond that develops may be weak or absent, and when care is low (emotional coldness and rejection) and overprotection is high, affectionless control typifies the bonding relationship.

Although the constructs of adult attachment and parental bonding tap into the nature of relationship quality, each construct views human connection from a different vantage point. Whereas Bartholomew and Horowitz's (1991) four-category adult attachment model considers individuals' perceptions of their current close relationships with peers, Parker et al.'s (1979) conceptualization of parental bonding involves recollections of early relationships with caregivers. That is, the attachment construct targets the manner in which people perceive their own worth and that of others in the context of current relationships; the bonding construct, however, targets a present-day characterization of past caregiver style. Rather than addressing the perception of one's upbringing, adult attachment focuses on a current sense of worth and the expectation of how others will respond

in relationship. Parental bonding, in contrast, focuses upon memories of early child–caregiver interactions and the sense of how one was treated by one’s caregivers.

In consideration of the distinctions between the adult attachment and parental bonding constructs, we may view the assessment of adult attachment as eliciting a general sense of how one fits into current relationships and the assessment of parental bonding as specific to the memory of past child–caregiver interactions. In other words, adult attachment and parental bonding, while certainly interrelated in that both tap into the quality of relationships individuals form with others, nonetheless do not actually target the same general conceptualization of relationship quality, but are instead distinct constructs that capture slightly different aspects of human interaction from divergent points of view.

Purpose of the Study and Predictions

This study, in light of the relative paucity of research involving single-sample assessments of our constructs of interest, was designed to address more systematically the interconnections that may exist between adult attachment, memories of early parental bonding experiences and various forms of anxiety. To accomplish this, we specifically targeted adults’ reports of early interactions with caregivers, as well as their present interpersonal approach in relation to five different types of self-reported anxiety: obsessive-compulsive behavior, panic symptomatology, experience of worry and generalized anxiety, post-trauma symptomatology, and experience of social anxiety.

Predictions for the study flowed from our premise that adult attachment and parental bonding are interconnected but separate aspects of relational experience. Although Myhr et al. (2004) found no significant correlation between attachment and early bonding memories, the authors suggested potential reasons for this finding, including instrument limitations and attachment or diagnosis biases of the participants. Taking into account this explanation and our premise that the attachment and bonding constructs, while interrelated, capture relationship quality from different vantage points, we first conjectured that we would find a low to moderate relationship between these two variables.

With respect to relationships among adult attachment and anxiety, since the preponderance of the literature (Cassidy et al., 2009; Eng & Heimberg, 2006; Eng et al., 2001; Ghafoori et al., 2008; Marazziti et al., 2007; Myhr et al., 2004; O’Connor & Elklit, 2008; Renaud, 2008) indicates associations between self-reports of adult attachment style and self-reports of anxiety, we predicted that the tendency toward each of several different anxiety types would negatively correlate with secure attachment style and positively correlate with the insecure styles of attachment, and that these associations would be strong.

With respect to relationships between parental bonding and anxiety, some of the literature indicates a clear association (Chambless et al., 1996; Chorpita & Barlow, 1998; Pacchierotti et al., 2002; Parker, 1979; Turgeon et al., 2002; Yarbrow et al., 2013), whereas other investigations have yielded mixed results (Cavedo & Parker, 1994; Ghafoori et al., 2008; Mancini et al., 2000; Manicavasagar et al., 1999; Myhr et al., 2004; Parker, 1979; Silove et al., 1991). Given these inconsistencies and our assumption of adult attachment and parental bonding as measuring distinct aspects of relational quality, we anticipated fewer significant correlations between parental bonding and different forms of anxiety. Nevertheless, where significant correlations arose, we predicted positive correlations between anxiety and the overprotection dimension of parental bonding and negative correlations between anxiety and the care dimension.

Method

Participants

Participants for the study were 201 undergraduate psychology students (152 female, 48 male, with one person not reporting gender) at a university located in the Southwestern United States. Latino/Hispanic participants comprised 36.8% of the sample and Caucasian participants comprised 49.8%. The remaining participants reported race or ethnicity as African American (3%), Asian (2%), Native American (2%), Pacific Islander (.5%), or Other (6%). Participants' ages ranged from 17 to 50 years, with a mean of 19.86 ($SD = 3.78$).

Procedures

Approval for the study was granted by the Institutional Review Board at our university. Participants were recruited through a Web-based recruitment system and their participation was an optional part of their psychology course requirement. A description of the study and the dates and times during which data collection would take place were posted on the Web site and participants signed up for the test period that was convenient for them. As participants arrived at the testing location, they were greeted by the test administrator and seated around a table. After informed consent was explained and a questionnaire packet provided, participants were allowed up to 1.5 hours to complete the surveys. A maximum of 25 participants were permitted to sign up for each test period.

Variables and Instrumentation

Relationship Scales Questionnaire. To index adult attachment, we used the Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994). The RSQ consists of 30 items and asks participants to rate, on a 5-point scale, how well each of the items fits their perception of the style they use in their close relationships. Individuals are scored on each of four attachment patterns: secure, fearful, preoccupied, and dismissing. Internal consistencies for the RSQ range from .41 for secure attachment to .71 for dismissing attachment. Although these alpha values may appear low, it is a natural result of combining two orthogonal dimensions, including model of self and model of others. It also is important to note that test-retest reliability may be inferred from the data on internal consistency, since the RSQ indexes attachment using a dimensional approach (Griffin & Bartholomew, 1994). A psychometric examination of the RSQ in a French population demonstrated good construct validity, test-retest reliability and internal consistency (Guédénéy, Fermanian, & Bifulco, 2010). We chose the RSQ for its widespread application in counseling and other mental health venues to study attachment as it relates to topics such as parental bonding and anxiety (Ghafoori et al., 2008; Yarbrow et al., 2013), perfectionism (Chen, Hewitt, & Flett, 2015), interpersonal sensitivity (Otani et al., 2014), and problematic substance use (Massey, Compton, & Kaslow, 2014).

Parental Bonding Instrument. To index parental bonding, we used the Parental Bonding Instrument (PBI) developed by Parker et al. (1979). The instrument consists of 25 items, including 12 parental care items and 13 parental overprotection items, and asks participants to rate on a 4-point scale how they remember their primary caregiver. A test-retest reliability study yielded a Pearson correlation coefficient for the care scale of .761 and a Pearson correlation coefficient for the overprotection scale of .628 (Parker et al., 1979). A comparison of the psychometric properties of the PBI and another measure of parenting behavior demonstrated that the PBI may be more stable over time (Safford, Alloy, & Pieracci, 2007), and a Persian version showed high internal consistency and test-retest reliability (Behzadi & Parker, 2015). We chose the PBI for its long history of utilization in the study of familial relationships. It continues to be a frequently employed instrument in the

investigation of caregiver–offspring interactions in the context of problems such as anxiety (Meites et al., 2012; Seganfredo et al., 2009), pathological gambling (Villalta, Arévalo, Valdepérez, Pascual, & Pérez de los Cobos, 2015), intermittent explosive disorder (Lee, Meyerhoff, & Coccaro, 2014) and suicidality (Goschin, Briggs, Blanco-Lutzen, Cohen, & Galynker, 2013).

Obsessive-Compulsive Inventory-Revised. To assess tendency toward obsessive-compulsive behavior, we used the Obsessive-Compulsive Inventory-Revised (OCI-R; Foa et al., 2002). This questionnaire consists of 18 items and asks participants to rate, on a 5-point scale, how much each item has bothered them in the last month. In their examination of the psychometric properties of the OCI-R, Foa et al. (2002) demonstrated that test–retest reliability ranged from .74 to .91 for individuals with OCD, and from .57 to .87 for non-anxious controls. In a recent psychometric examination, the OCI-R was shown to be valid, reliable and diagnostically sensitive (Wootton et al., 2015). The OCI-R also demonstrated good validity and reliability in an older adult population (Calamari et al., 2014).

Panic Disorder Severity Scale-Self Report. To assess tendency toward panic symptoms, we used the Panic Disorder Severity Scale-Self Report (PDSS-SR; Houck, Spiegel, Shear, & Rucci, 2002). The PDSS-SR consists of seven questions rated on a 5-point scale. The questions explore the presence and degree of panic in the lives of participants. Test–retest reliability was shown by Shear et al. (2001) to be satisfactory, with a Pearson correlation coefficient of .71. More recently, a psychometric evaluation of the self-report and clinician-administered versions of the PDSS indicated adequate or promising reliability and validity for each form (Wuyek, Antony, & McCabe, 2011). An examination of the Spanish version of the PDSS-SR demonstrated that the psychometric properties were comparable to those of other versions of this instrument (Santacana et al., 2014).

Penn State Worry Questionnaire. To assess tendency toward worry and generalized anxiety, we used the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990). This measure consists of 16 items and asks participants to rate, on a 5-point scale, how characteristic each item is of them. Meyer et al. (1990) found the PSWQ to possess high internal consistency and good test–retest reliability ($r[45] = .92, p < .001$) in clinical as well as in non-clinical samples, with alpha coefficients ranging from .88 to .95 for both groups. More recent examinations of the PSWQ have indicated that the instrument is psychometrically sound in African American populations (DeLapp, Chapman, & Williams, 2015), in online administrations of the Hungarian version (Pajkossy, Simor, Szendi, & Racsmany, 2015) and among older adults (Wuthrich, Johnco, & Knight, 2014). The PSWQ continues to be used to index worry in the study of therapeutic concerns such as psychological inflexibility (Ruiz, 2014), negative mood (Dash & Davey, 2012), and distress tolerance (Macatee, Capron, Guthrie, Schmidt, & Cogle, 2015).

PTSD Checklist-Civilian Version. To assess tendency toward post-trauma symptoms, we used the PTSD Checklist-Civilian Version (PCL-C; Weathers, Litz, Herman, Huska, & Kean, 1993). The PCL-C consists of 17 items asking participants to rate, on a 5-point scale, how often each item has bothered them in the last month. Weathers et al. (1993) studied veterans in their original research on the psychometric properties of the PCL and found that test–retest reliability was .96 over a period of 2 to 3 days. Recent investigation of the psychometric properties of the PCL-C indicated continued high internal consistency and high test–retest reliability in a non-clinical population; in addition, convergent and discriminant validity were satisfactory when compared to other assessments of PTSD (Conybeare, Behar, Solomon, Newman, & Borkovec, 2012).

Social Interaction Anxiety Scale. To assess tendency toward social anxiety, we used the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998). The SIAS consists of 20 items. This

questionnaire asks participants to rate, on a 5-point scale, how characteristic each item is of them. In their examination of the psychometric properties of the SIAS, Mattick and Clark (1998) found the alpha coefficient for test-retest reliability to be .92 at both 4 weeks (range 3–5 weeks) and 12 weeks (range 11–13 weeks). More recently, the SIAS has been evaluated in several settings and formats, including the Internet (Hedman et al., 2010; Hirai, Vernon, Clum, & Skidmore, 2011) and in a shortened version (Fergus, Valentiner, Kim, & McGrath, 2014) with consistently adequate results. The SIAS continues to be used to index social anxiety in the study of mental health related topics such as participation in Alcoholics Anonymous (Moser, Turk, & Glover, 2015) and efficacy of cognitive-behavioral group therapy versus group psychotherapy (Bjornsson et al., 2011).

Data Analyses

Scoring. Scores and, when relevant, sub-scores were calculated for each instrument. Although the PBI can yield specific categories of parental bonding (i.e., optimal bonding or affectionless control), for the purposes of our study each dimension of this instrument (care and overprotection) was scored continuously. Like the PBI, the RSQ may be employed categorically; we elected, instead, to utilize the multi-item nature of the RSQ to permit participants to express their attachment preferences on a continuous scale so that overall attachment preferences would incorporate aspects of each of the four attachment patterns (Griffin & Bartholomew, 1994). This approach allowed us to develop a correlation matrix that included continuous scores not only for the PBI and RSQ, but also for each of the anxiety indices utilized. Data analysis also involved the calculation of Pearson's r for the relationships between RSQ and PBI scores, between RSQ scores and scores on each of the five anxiety indices we used, and between PBI scores and scores on each of the five anxiety indices.

Reliability of scores. Reliability coefficients were calculated for each of the instruments utilized, including the subscales of the PBI, the RSQ, and the OCI-R. Cronbach's alpha for the instruments ranged from .420 for the secure subscale of the RSQ to .938 for the PSWQ (see Tables 1 and 2). Due to the low reliability for several of the scales, all observed correlations were disattenuated (corrected to account for measurement error) using the following equation (Osborne, 2003):

$$r^*_{12} = \frac{r_{12}}{\sqrt{r_{11}r_{22}}}$$

The reliability coefficients are represented by r_{11} and r_{22} , while r_{12} is the observed correlation and r^*_{12} is the disattenuated correlation. Disattenuated correlations are listed in parentheses below the observed correlations in Tables 1 and 2.

Significance level and magnitude of correlations. In order to reduce the risk of a Type I Error in this study, a more stringent alpha level was adopted: only correlations that were significant at $p < .01$ were considered, while correlations significant at $p < .05$ were disregarded.

Correlation coefficients of 0 to .3 were considered to be of small magnitude, whereas correlation coefficients of .4 to .7 were considered to be of moderate magnitude, and correlation coefficients of .8 or greater were considered to be of high magnitude.

Results

Tables 1 and 2 present the correlation coefficients for the relationships between RSQ and PBI ratings and between each of these and ratings for all anxiety indexes utilized in this study. With respect to correlations between scores on the RSQ and PBI, higher scores for the RSQ's secure

attachment preference positively correlated with higher scores on the PBI's care dimension and negatively correlated with higher scores on the PBI's overprotection dimension ($p < .01$). Higher scores for the RSQ's preoccupied and fearful attachment preferences negatively correlated with higher scores on the PBI's care dimension and positively correlated with higher scores on the PBI's overprotection dimension ($p < .01$), while scores for the RSQ's dismissing attachment preference were not correlated with the PBI's care or overprotection dimension. All correlations were of small magnitude, although the disattenuated correlations for care–secure ($r = .526$) and overprotection–fearful ($r = .497$) were of moderate magnitude.

Table 1.

Means, Standard Deviations, Reliability and Correlation Coefficients (Disattenuated Correlation Coefficients in Parentheses)

	MN	SD	RL	PBI (C)	PBI (OP)	RSQ (S)	RSQ (D)	RSQ (F)	RSQ (P)	OCI-R (Total)	PDSS-SR	PSWQ	PCL-C	SIAS
PBI (C)	2.55	.51	.892											
PBI (OP)	.99	.56	.776	-.368** (-.422)										
RSQ (S)	2.31	.68	.420	.322** (.526)	-.183** (-.321)									
RSQ (D)	2.20	.64	.566	.045 (.063)	.019 (.029)	-.198** (-.406)								
RSQ (F)	1.78	.87	.507	-.245** (-.364)	.312** (.497)	-.597** (-1.294)	.359** (.670)							
RSQ (P)	1.89	.79	.568	-.187** (-.263)	.242** (.364)	-.223** (-.457)	-.316** (-.557)	.278** (.518)						
OCI-R (Total)	.85	.61	.869	-.100 (-.114)	.106 (.129)	-.388** (-.642)	.111 (.158)	.309** (.466)	.246** (.350)					
PDSS-SR	.43	.50	.820	-.071 (-.083)	.087 (.109)	-.274** (-.467)	.063 (.092)	.320** (.496)	.309** (.453)	.551** (.653)				
PSWQ	2.22	.93	.938	-.095 (-.104)	.176 (.206)	-.356** (-.567)	-.005 (-.069)	.321** (.466)	.291** (.399)	.476** (.527)	.508** (.579)			
PCL-C	1.13	.799	.918	-.250** (-.276)	.186** (.220)	-.386** (-.622)	.155 (.213)	.441** (.646)	.285** (.395)	.526** (.589)	.539** (.621)	.483** (.521)		
SIAS	1.199	.77	.929	-.289** (-.317)	.187** (.220)	-.503** (-.805)	-.012 (-.017)	.337** (.491)	.413** (.569)	.371** (.413)	.376** (.431)	.424** (.454)	.466** (.505)	

Note. MN = Mean; SD = Standard Deviation; RL = Reliability; PBI = Parental Bonding Instrument; C = Care; OP = Overprotection; RSQ = Relationship Scales Questionnaire; S = Secure; D = Dismissing; F = Fearful; P = Preoccupied; OCI-R = Obsessive-Compulsive Inventory-Revised; PDSS-SR = Panic Disorder Severity Scale-Self Report; PSWQ = Penn State Worry Questionnaire; PCL-C = PTSD Checklist-Civilian Version; SIAS = Social Interaction Anxiety Scale

**Correlation is significant at $p < .01$

Table 2.*Obsessive-Compulsive Subtypes: Means, Standard Deviations, Reliability and Correlation Coefficients (Disattenuated Correlation Coefficients in Parentheses)*

	MN	SD	RL	PBI (C)	PBI (OP)	RSQ (S)	RSQ (D)	RSQ (F)	RSQ (P)	OCI-R (Total)	PDSS-SR	PSWQ	PCL-C	SIAS
OCI-R Hoarding	1.22	.999	.65	-.092 (-.121)	.136 (.191)	-.260** (-.496)	-.043 (-.071)	.172 (.299)	.293** (.481)	537** (.713)	288** (.394)	.353** (.451)	.355** (.459)	.357** (.458)
OCI-R Checking	.82	.83	.73	.004 (.005)	.017 (.023)	-.278** (-.504)	.086 (.094)	.208** (.343)	.112 (.175)	748** (.942)	395** (.506)	.396** (.480)	.344** (.422)	.317** (.386)
OCI-R Ordering	1.14	1.05	.88	.088 (.099)	-.006 (-.007)	-.231** (-.380)	.183** (.259)	.208** (.311)	.087 (.123)	707** (.808)	344** (.404)	.232** (.255)	.430** (.378)	.149 (.165)
OCI-R Neutralizing	.48	.77	.55	-.125 (-.179)	.164 (.251)	-.253** (-.527)	.063 (.113)	.181 (.343)	.066 (.118)	.747** (1.081)	346** (.516)	.282** (.393)	.359** (.506)	.159 (.223)
OCI-R Washing	.51	.67	.66	-.051 (-.066)	.066 (.092)	-.193** (-.366)	.089 (.145)	.142 (.245)	.081 (.132)	613** (.808)	371** (.503)	.244** (.309)	.266** (.341)	.088 (.112)
OCI-R Obsessing	.93	.96	.79	-.148 (-.176)	.145 (.185)	-.351** (-.608)	.075 (.112)	.329** (.519)	.290** (.432)	741** (.892)	501** (.621)	.410** (.475)	.444** (.520)	.367** (.427)

Note. MN = Mean; SD = Standard Deviation; RL = Reliability; PBI = Parental Bonding Instrument; C = Care; OP = Overprotection; RSQ = Relationship Scales Questionnaire; S = Secure; D = Dismissing; F = Fearful; P = Preoccupied; OCI-R = Obsessive-Compulsive Inventory-Revised; PDSS-SR = Panic Disorder Severity Scale-Self Report; PSWQ = Penn State Worry Questionnaire; PCL-C = PTSD Checklist-Civilian Version; SIAS = Social Interaction Anxiety Scale

** Correlation is significant at $p < .01$

With respect to correlations between RSQ scores and ratings on each of the five self-report measures of anxiety (OCI-R, PDSS-SR, PSWQ, PCL-C, and SIAS), higher scores for the RSQ's secure attachment preference negatively correlated with higher scores on all five self-report measures of anxiety ($p < .01$). The disattenuated correlation between scores for the RSQ's secure attachment preference and ratings on the SIAS was of high magnitude ($r = -.805$), while the magnitudes of the disattenuated correlations for scores for the RSQ's secure attachment preference and scores on the other anxiety indices were all moderate (secure attachment–obsessive-compulsive, $r = -.642$; secure attachment–panic, $r = -.467$; secure attachment–worry, $r = -.567$; secure attachment–post-trauma, $r = -.622$). Higher scores for the RSQ's preoccupied and fearful attachment preferences positively correlated with higher scores on every type of anxiety indexed ($p < .01$), with all disattenuated correlations nearing or reaching moderate magnitude. Dismissing attachment style was not correlated with scores for any type of anxiety assessed in this study.

With respect to correlations between PBI scores and ratings on each of the five self-report measures of anxiety (OCI-R, PDSS-SR, PSWQ, PCL-C, and SIAS), neither PBI's care nor overprotection dimension correlated with obsessive-compulsive symptoms, panic, or worry. However, higher scores on the PBI care dimension negatively correlated with higher scores for post-trauma and social anxiety symptoms ($p < .01$), and higher scores on PBI's overprotection dimension positively correlated with higher scores for post-trauma and social anxiety ($p < .01$). All correlations were of small magnitude (care–post-trauma, $r = -.276$; care–social anxiety, $r = -.317$; overprotection–post-trauma, $r = .220$; overprotection–social anxiety, $r = .220$).

Discussion

This study examined the relationship between participant reports of adult attachment style, early bonding interactions with caregivers, and five different anxiety types. Results of the study supported our predictions of (a) a low to moderate relationship between adult attachment and parental bonding, (b) strong negative correlations between a secure attachment preference and all types of anxiety, (c) strong positive correlations between preoccupied and fearful attachment preferences and all types of anxiety, and (d) fewer significant correlations between early bonding memories and different anxiety types. With regard to this last prediction, only two types of anxiety (post-traumatic and social) were negatively associated with the care dimension of bonding and positively associated with the overprotection dimension; the other anxiety types were not correlated with either bonding dimension. Contrary to prediction, dismissing attachment did not correlate with any anxiety type or with either the care or overprotection dimension of parental bonding.

The positive correlation we found between secure attachment and early memories of high care and low overprotection contrasts with the absence of significant correlation in Myhr et al.'s (2004) results, but is in keeping with our assumption that adult attachment and parental bonding constructs are distinct, as well as interrelated (hence our prediction of a low to moderate relationship). Also noteworthy was the absence of significant correlation between dismissing attachment style and both the care and overprotection scales of the PBI. Since insecure attachment is considered to result from relationship experiences that do not support the optimal development of a child (Bowlby, 1988), it is interesting that only fearful and preoccupied attachment preferences were correlated with less-than-optimal caregiving (lower care scores and higher overprotection scores).

Further explanation for this result may lie in the inherent qualities of the dismissing attachment pattern. Bartholomew (1993) suggested that dismissing attachment is characterized by a denial of the need for close relationships and George, Kaplan, and Main (1996) posited that individuals with a dismissing attachment state of mind often idealize their caregivers. Participants with a dismissing attachment style may have failed to report less-than-optimal caregiving, because they did not feel close to their caregivers and were thus unaware of their caregivers' deficiencies or even dismissed unpleasant early bonding memories. In addition, the absence of significant correlation between dismissing attachment and total scores for all types of anxiety indexed in our sample suggests that individuals with a dismissing attachment style may experience a lower level of the subjectively disagreeable physiological reactivity that is often present alongside anxiety. If so, this may help explain the decreased reporting of anxiety and unpleasant early bonding memories among individuals who reported a preference for the dismissing attachment pattern.

As expected, lower correlations emerged between memories of early parental bonding (both care and overprotection) and different types of anxiety than those observed between anxiety and the secure, preoccupied, and fearful styles of adult attachment. Neither the care nor the overprotection dimension of bonding significantly correlated with total obsessive-compulsive symptoms, panic symptoms or generalized anxiety symptoms, which is partly consistent with Manicavasagar et al. (1999), who determined that PD may not be correlated with parental overprotection. Congruent with Parker's (1979) investigation, which found that people with social phobia reported decreased care and increased overprotection in their caregivers, our results revealed significant correlations between parental bonding and anxiety only with respect to post-trauma and social anxiety symptomatology, and these correlations were of low magnitude.

Given that our study revealed associations between early bonding memories and experiences of both post-trauma and social anxiety, but not the other types of anxiety indexed, it is necessary to consider a possible etiology for this finding. Since our sample consisted of undergraduate psychology students, we thought it likely that many of our participants might be young people who were away from their homes and families for the first time and could be experiencing fear about their new social environment and possibly even feel traumatized by the separation from their caregivers. Indeed, our thinking is supported by the work of Manicavasagar et al. (1999), which indicated a potential association between the perception of parental overprotection and adult symptoms of separation anxiety.

Although results were consistent with predictions of lower correlations between parental bonding and anxiety than between attachment and anxiety, our findings diverged from the work of several other researchers. For example, Silove et al. (1991), Cavedo and Parker (1994), and Turgeon et al. (2002) found significant correlations between various types of anxiety and early bonding memories. It is possible that the lack of significant correlation in our sample between early bonding memories and obsessive-compulsive, panic or generalized anxiety symptoms may indicate that people with these types of anxiety remembered fewer adverse early bonding experiences as a means of self-soothing during a difficult time (i.e., first experience living away from home). Even though these individuals did not report enough positive or negative experiences with caregivers to result in care or overprotection correlations, they may have been unconsciously attempting to calm (or neutralize) their anxiety by remembering their early experiences in a more favorable light.

Treatment Implications of Attachment Style and Early Bonding Memories

Given the findings of our study, we believe that awareness of client attachment style may enhance therapeutic outcome in the treatment of anxiety conditions. For example, anxiety in individuals with secure attachment may be due to recent trauma rather than to long-term pathology, and the counselor's role will be to help these individuals traverse their current obstacles and regain previous effectual functioning (Pistole, 1989). On the other hand, fearful clients may need extra time to form an attachment to their counselors and to use them as a "secure base" from which to explore the world in a less anxious way. Anxious individuals with a preoccupied style of attachment may have difficulty managing their emotional responses and counselors may find it helpful to respond with empathic listening, rather than becoming frustrated by emotional behavior (Pistole, 1989). Individuals with a dismissing attachment style may deny anxiety, as well as any desire or need for closeness, and the counselor may find it necessary to confront the dismissal of important relationships (including the therapeutic bond) and the denial of emotions like anxiety (Pistole, 1989).

Awareness of clients' early bonding memories may also inform therapeutic intervention when working with anxious individuals. In this study, post-trauma and social anxiety symptoms correlated with memories of early bonding, and understanding these connections may be meaningful in the treatment of anxiety. Young adults, who are potentially living away from their families of origin for the first time, may be particularly susceptible to post-trauma and social anxiety and may seek counseling for their concerns. A therapeutic understanding that these anxiety symptoms may be related to a less-than-optimal early environment, triggered by the uncertainties of being away from home, could result in treatment that is more relevant and individualized to the situation. Although medication may be appropriate for some clients contending with these circumstances, in other instances it could be especially beneficial to approach the treatment from the perspective of understanding the early family environment.

In contrast to post-trauma and social anxiety symptoms, obsessive-compulsive, panic and generalized anxiety symptoms were not correlated with early bonding memories. This may indicate that these conditions have fewer roots originating within the family, and the use of medications to control these particular anxiety symptoms may be appropriate. Despite the apparent lack of association between these three types of anxiety and early bonding memories, however, we suggest that involvement in counseling simultaneous to the use of any medication may increase the efficacy of treatment by providing a safe place for clients to discuss their concerns and consider solutions to the difficulties they encounter as a result of their anxiety conditions.

Considering the findings of this study, it is fair to assume that those counselors who bear in mind client attachment style and early bonding memories will provide a potentially more successful treatment for clients with anxiety conditions. The idea that attachment and bonding are related but distinct and separate constructs has the potential to broaden counselors' conceptualization of the manner in which relational involvement may impact anxiety and therefore contribute to enhanced treatment efficacy. Ideally, treatment of anxious clients will include an individualized approach that takes into account the manner and style in which each person forms attachments to others and with regard for the relationship between the type of anxiety being treated and memories of the early child-caregiver bond.

Limitations and Future Directions

The choice to focus our investigation on a non-clinical population is consistent with the method of several studies concerning this literature (e.g., Eng et al., 2001; Mancini et al., 2000; Meites et al., 2012; O'Connor & Elklit, 2008; Yarbrow et al., 2013). Nevertheless, the use of a non-clinical undergraduate sample may have resulted in more limited variation within anxiety states, creating a potential restriction of scores. Clearly, a clinical sample of individuals with previously diagnosed anxiety disorders is necessary to substantiate the non-clinical findings of this study. In addition, our sample's overrepresentation of women relative to men may be considered a limitation in that the associations between attachment, bonding, and anxiety could vary according to gender.

We also suggest that ongoing investigation of anxiety and attachment incorporate the use of instruments that do not require participants to discern their own degree of relational capacity. For example, the Adult Attachment Interview (George et al., 1996) provides a method for assessing attachment state of mind through unconscious processes. The dismissing attachment style, which itself merits further study, could be illuminated through the use of an instrument such as this. In addition to this concern, several of the instruments we elected to use were older measures. Although they continue to be utilized for investigatory purposes in the mental health field, their age may have bearing upon the data they yield, particularly since several of the instruments have not been re-normed or validated with current populations.

Finally, although Latino participants comprised nearly 37% of our sample, we advocate that future study of attachment, bonding and anxiety include a specific focus on multicultural populations. There may well be differences in the ways individuals from varied backgrounds experience anxiety and this should be investigated. People who have recently immigrated, for example, may experience change of this magnitude as stressful and anxiety provoking. Understanding the role of attachment and early bonding relationships in this population ultimately may provide information to support individuals, families and children who transition from their original culture into a new one.

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Excoriation Disorder: Assessment, Diagnosis and Treatment



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Excoriation disorder (also called skin picking disorder) is a newly added, often overlooked mental disorder in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (APA, 2013). The purpose of this article is to increase professional counselors' abilities to recognize and effectively address the symptoms of excoriation disorder. In this article, the etiologies, diagnostic criteria and assessment strategies for excoriation disorder are described. Excoriation disorder develops as the result of biological and physical contributors and might serve to regulate emotions. A review is provided of specific interventions and treatments, such as cognitive behavioral therapy and acceptance and commitment therapy, which have demonstrated success in treating those who have excoriation disorder.

Keywords: excoriation disorder, skin picking, assessment, diagnosis, DSM-5

Excoriation disorder, sometimes colloquially referred to as skin picking disorder, is a newly added disorder in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association [APA], 2013). Despite being a newly-classified *DSM* disorder, excoriation disorder is relatively common and affects between 1.4 and 5.4% of the general population (Grant et al., 2012). The purpose of this article is to provide professional counselors with a general understanding of how to assess, diagnose and treat excoriation disorder.

The prevalence of excoriation disorder may be underestimated, as it is sometimes overlooked, particularly because of comorbidity with other mental disorders (e.g., depression, anxiety, obsessive-compulsive disorder; Hayes, Storch, & Berlanga, 2009). Previously underestimated numbers of its prevalence also may be due to the covertness often associated with this disorder (Grant & Odlaug, 2009). Many people with excoriation disorder go to great lengths to hide their behavior from others (e.g., significant others, family members, health professionals) due to fear or embarrassment.

Historically, excoriation disorder has been associated with obsessive-compulsive disorder (OCD), and it is now listed as a unique diagnosis in the *obsessive-compulsive and related disorders* section in the *DSM-5* (Ravindran, da Silva, Ravindran, Richter, & Rector, 2009). According to the APA (2013), excoriation disorder involves the recurrent, excessive and often impulsive scratching, rubbing and picking of skin which leads to tissue damage and lesions. Those who have excoriation disorder frequently initiate attempts to eradicate these destructive behaviors, yet have difficulty doing so. In order for the diagnosis of excoriation disorder to be applied, individuals must experience clinically-significant distress or impairment in social, occupational or other important areas of functioning due to the routine nature of the skin picking behaviors (APA, 2013). Because of its physical manifestation, this phenomenon has frequently been discussed in medical research, but it is now receiving attention in mental health circles.

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Etiology of Excoriation Disorder

Little is known about the etiology of excoriation disorder. Much of the current excoriation disorder research has been based on previous research conducted on trichotillomania. Excoriation disorder and trichotillomania are body-focused repetitive behaviors (BFRB) under the same *DSM-5* classification, and the etiologies behind both disorders might be similar (Flessner, Berman, Garcia, Freeman, & Leonard, 2009). Most theorists suggest that excoriation disorder is rooted in both biological and psychological factors (Grant et al., 2012).

Biological factors related to excoriation disorder include genetic predispositions and neurological sensitivity to emotional stimuli, which result in emotional impulsivity and a need to self-soothe (Snorrason, Smári, & Ólafsson, 2011). In one study of 40 individuals who had excoriation disorder, 43% had a first-degree relative with the disorder (Neziroglu, Rabinowitz, Breytman, & Jacofsky, 2008). Specific genes (e.g., *Hoxb8* and *SAPAP3*) have been identified as potential predictors of this disorder (Grant et al., 2012). In animal studies, mice with these genes engaged in excessive grooming to the point of skin lesions, behaviors similar to those of people who have excoriation disorder (Grant et al., 2012). Conversely, in another study, humans with the *SAPAP3* gene only met criteria for excoriation disorder 20% of the time (Dufour et al., 2010). It is important to note that genetics appear to play a role in the development of excoriation disorder, but other factors contribute to the disorder's etiology and maintenance as well (Grant et al., 2012; Lang et al., 2010).

In terms of psychological factors, skin picking behaviors help regulate uncomfortable emotions and can become a behaviorally-reinforced coping mechanism used to manage negative feelings (Lang et al., 2010). Some researchers suggest that excoriation disorder is rooted in higher levels of emotional impulsivity and that this characteristic supports and encourages the development of the disorder (Grant et al., 2012). Those with excoriation disorder experience obsessive thoughts about skin picking and engage in more impulsive, sensation-seeking behaviors (e.g., picking, rubbing) than those without the disorder (Snorrason et al., 2011). Those with excoriation disorder often have a greater difficulty with response inhibition and an increased difficulty suppressing an already initiated response as compared to control participants (Grant, Odlaug, & Chamberlain, 2011; Odlaug & Grant, 2010). For example, it might be more difficult for those with excoriation disorder to retract their hand if they already started reaching for an object to use to excoriate. This elevated level of impulsivity may be rooted in brain abnormalities; however, further research is necessary to clearly establish this connection (Grant et al., 2012).

Another common theory regarding the onset and maintenance of excoriation disorder is that skin picking behaviors can help regulate emotions and can become a behaviorally-reinforced coping mechanism used to manage elevated levels of anxiety, stress and arousal. Individuals who skin pick often display elevated stress responses to normal stimuli (Lang et al., 2010), and skin picking appears to temporarily sooth such stress. Additionally, obsessive thoughts about skin imperfections and anxiety over not picking can be temporarily relieved by completing the behaviors (Capriotti, Ely, Snorrason, & Woods, 2015). As such, there is a behavioral component—in addition to the genetic and biological components of the disorder—that must be considered when understanding the etiology, assessment, diagnosis and treatment of excoriation disorder.

Assessment and Diagnosis of Excoriation Disorder

The proposed etiologies (e.g., genetic predispositions, biological markers) and functions (e.g.,

soothing emotional reactivity, reducing obsessive thoughts) of excoriation disorder inform the diagnostic and assessment process. It is important that counselors have a thorough understanding of the *DSM-5* criteria for excoriation disorder and understand that many clients with this disorder might hide physical markers and omit skin picking information unless asked directly (Grant & Odlaug, 2009). As such, counselors might use formal assessments, in addition to clinical judgment, in order to make an accurate diagnosis and best understand the client's behaviors.

Assessment

A number of assessment tools can be used to assist in assessing, diagnosing and treating those who have excoriation disorder. Each measure can be utilized by counselors in developing a holistic conceptualization of the client and for engaging in differential diagnosis. Upon accurate diagnosis of excoriation disorder, assessment measures also can aid counselors in selecting appropriate treatment goals, interventions and modalities for each client, and they can be used to assess client behavior change.

Keuthen et al. (2001b) constructed three skin picking scales that can be used to assess excoriation disorder and aid in the assessment and treatment process. The first measure, the Skin Picking Scale (SPS), can be used to measure the client's self-reported severity of skin picking behaviors. This measure consists of six items that relate to the frequency of picking urges, intensity of picking urges, time spent engaging in skin picking behaviors, interference of the behaviors in functioning, avoidance behaviors and the overall distress associated with the excoriation-related behaviors. Each item is assessed on a 5-point scale of 0 (none) to 4 (extreme), resulting in a range of total scores between 0 and 24. The SPS demonstrated high internal consistency with adequate convergent validity (Keuthen et al., 2001a). Pragmatically, this measure can be used to distinguish self-injurious skin picking from non-self-injurious skin picking. As treatment gains are made, corresponding scores should decrease.

The second measure is the Skin Picking Impact Scale (SPIS). The SPIS is a self-report questionnaire designed to assess the impacts or consequences of repetitive skin picking (e.g., negative self-evaluation, social interference; Keuthen et al., 2001a). Each of the scale's 10 items are rated on a 6-point scale from 0 (none) to 5 (severe), resulting in a total score ranging from 0 to 50. The SPIS has high internal consistency (Keuthen et al., 2001a; Snorrason et al., 2013), and scores appear to correlate with duration of picking, satisfaction of picking and shame associated with picking.

The third measure is the Skin Picking Impact Scale-Shorter Version (SPIS-S). The SPIS-S is the shorter version of the SPIS consisting of only a 4-question scale (Snorrason et al., 2013). The SPIS and the SPIS-S have a similar factor structure and both have high internal consistency. These measures assess the impacts of picking behaviors on social life, perceived embarrassment associated with picking behaviors, consequences of picking behaviors and perception of attractiveness (Snorrason et al., 2013). The ultimate difference between the two scales is the brevity of the shorter version measure as compared to 10 items on the other measure. Snorrason and associates (2013) found acceptable discriminant and convergent validity for the SPIS and the SPIS-S; both measures may be considered for clinical use.

The Milwaukee Inventory for the Dimensions of Adult Skin Picking (MIDAS) is another skin picking assessment measure (Walther, Flessner, Conelea, & Woods, 2009). The MIDAS consists of 21 items and highlights the degree of *focused* picking (e.g., body sensations, reaction to negative emotions) and *automatic* picking behaviors (e.g., unaware of skin picking behaviors, concentrating on another activity, unintentional picking; Walther et al., 2009). Within the measure, each item is rated on a 5-point scale (i.e., 1–5; not true of my skin picking to always true for my skin picking), and

a specific score is provided for *focused* and *automatic* picking. The MIDAS demonstrates adequate internal consistency and good validity (i.e., construct and discriminant), making it a reliable and valid measure for distinguishing types of skin picking behaviors (Walther et al., 2009). This assessment is especially useful in facilitating an understanding of the client's motivations for skin picking, as well as potential ways to reduce the problematic behaviors.

The Skin Picking Impact Survey (SKIS; Tucker, Woods, Flessner, Franklin, & Franklin, 2011) is a self-report survey measure. The SKIS, which consists of 92 items, is used to explore multiple dimensions of skin picking behaviors. This survey consists of individual items that assess skin picking symptoms (e.g., presentation), levels of severity (e.g., urges, intensity, time spent, distress, avoidance), consequences (i.e., physical and psychosocial), treatment-seeking history, and demographic information. The SKIS demonstrated acceptable internal consistency (Tucker et al., 2011). Additional items are used to assess for comorbid disorders and other associated symptoms (e.g., depression, anxiety, stress).

Finally, a unique approach to assessing excoriation disorder is to utilize a functional analysis assessment (LaBrot, Dufrene, Ness, & Mitchell, 2014). Although not created primarily to assess skin picking behaviors, a functional analysis assessment is a behavioral technique used to explore the relationship between any stimuli and response (e.g., being cold and shivering; LaBrot et al., 2014). With regards to excoriation disorder, the functional analysis assessment consists of behavior scales and individual interviews with anyone close to the client (e.g., spouse, family member, classroom teacher). The interviews include a discussion of the client's behaviors and antecedents to such behaviors (LaBrot et al., 2014). This interview also involves a direct observation of the client in the most problematic setting (e.g., home, work, school), and counselors should take note of the time of day or events that often lead up to skin picking behaviors.

A functional analysis assessment also might involve the use of a thought log to help explore thoughts that lead to skin picking behaviors (LaBrot et al., 2014). This connection between thoughts (i.e., obsessions) and behaviors (i.e., compulsions) is characteristic of the obsessive-compulsive *DSM-5* classification under which excoriation disorder is housed. Counselors may suggest that clients self-monitor their skin picking behaviors in order to better understand the frequency, triggers, cues, and increases or reductions in thoughts and behaviors. For example, clients may be asked to place a journal or worksheet in places where picking often occurs (e.g., bathroom, bedroom) and then to report and rate the intensity of urges, precipitating events, alternative behaviors, and if picking behaviors actually occurred. When assessing skin picking, clients also should be invited to note any attempts to stop picking, consequences of the skin picking behaviors, and other behaviors that could potentially serve as incompatible replacements (LaBrot et al., 2014). The use of a functional analysis assessment allows the counselor to gain a more complete, contextual picture of the behaviors.

To gain a richer understanding of the client's behaviors, counselors might (if approved by the client) gather assessment and baseline information from the client's friends and family members (Grant & Stein, 2014). During the assessment process, counselors should explore all aspects of the client's life, including recent life experiences, past traumas and current life stressors (LaBrot et al., 2014). An accurate diagnosis and collaborative treatment plan can be developed when this information is integrated to form a contextual understanding of the client's skin picking experiences.

Diagnosis

A thorough assessment helps counselors to identify an accurate diagnosis. Armed with assessment data, counselors can determine the presence of excoriation disorder and any comorbid disorders. In

order to accurately diagnose the disorder, counselors must be familiar with the *DSM-5* diagnostic criteria and understand diagnostic considerations related to the disorder.

The onset of excoriation disorder varies significantly, but it most often begins in early adolescence or between the ages of 30 to 45 years old (Grant et al., 2012). Skin picking causes physical harm, and clients often make repeated attempts to reduce the behavior because of the distress and physical impairment it invites. By definition, excoriation disorder is not caused by a substance or medical condition and not accounted for by another disorder (APA, 2013). The diagnostic features of excoriation disorder remain the same regardless of age or other multicultural factors (Grant et al., 2012). The general features that a counselor should look for when diagnosing excoriation disorder include a preoccupation with picking behaviors, difficulty in controlling the behaviors and distress resulting from the behaviors.

Because this is a newer diagnosis, it is often overlooked, misdiagnosed (Grant et al., 2012), or overshadowed by comorbid diagnoses (APA, 2013; Grant & Stein, 2014; Hayes et al., 2009). It is important to distinguish between excoriation disorder and nonsuicidal self-injury, both of which involve self-inflicted damage to the body that provides relief from unwanted thoughts or feelings (APA, 2013). Nonsuicidal self-injury is typically motivated by negative thoughts or feelings about the self in relation to others, and bodily harm provides a feeling of relief or euphoria (APA, 2013; Shapiro, 2008). Conversely, excoriation disorder is an obsessive-compulsive and related disorder and is more ritualistic; unwanted thoughts and feelings are directly related to bumps or certain types of scabs on the body, and clients have a routine related to removal (e.g., examining, picking) and disposal (e.g., playing with or eating) of such bumps or scabs (APA, 2013; Capriotti et al., 2015; Walther et al., 2009).

Individuals with excoriation disorder generally have difficulty resisting the urge to pick and often believe their behavior cannot be altered or changed (Kress & Paylo, 2015). Typically, there are two types of picking behaviors: behaviors that are *automatic* and behaviors that are *focused* (Christenson & Mackenzie, 1994). Individuals who engage in picking behavior outside of their awareness, such as while watching television or while reading a book, are engaging in what is known as *automatic* picking. Those who are fully aware of their behavior and pick to regulate or to manage negative emotions due to specific thoughts or stressors are engaging in *focused* picking. Both types of picking typically cause client embarrassment, impair functioning and are difficult to manage and control (Odlaug, Chamberlain, & Grant, 2010).

Although focused skin picking might seem to be more directly tied to conscious obsessions than the automatic type, both types were reclassified under obsessive-compulsive and related disorders in the *DSM-5* due to the universal obsessive and compulsive features of the disorder; these obsessions and compulsions also are shared with individuals who have trichotillomania (Snorrason, Belleau, & Woods, 2012) and body dysmorphic disorder (Tucker et al., 2011). In each of these disorders, obsessions lead to an overwhelming urge to act upon unhelpful thoughts, which is often followed by a brief sense of relief once the compulsion has been engaged and completed. However, the urge inevitably arises again (despite bodily damage and some potential shame), and the cycle continues.

Ultimately, excoriation disorder is characterized by recurrent and excessive tissue damage that is not better accounted for by nonsuicidal self-injury. Those who have excoriation disorder have difficulty controlling their picking behaviors and experience clinically significant distress or impairment as a result of these behaviors (APA, 2013). Assessment measures can be used in conjunction with the *DSM-5* in order to make an accurate diagnosis that can inform clients' treatment.

Treatment of Excoriation Disorder

Several evidence-based treatment options are available for use in treating those who have excoriation disorder (Kress & Paylo, 2015). Unfortunately, many providers fail to use evidence-based treatment approaches in their work with this population (Tucker et al., 2011). A relatively small number of randomized controlled treatment studies have been conducted on this population; however, the most evidence-based approaches include cognitive behavioral therapy, habit reversal training and pharmacotherapy (Capriotti et al., 2015; Kress & Paylo, 2015).

Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) is an effective strategy for working with clients who have excoriation disorder (Grant et al., 2012; Schuck, Keijsers, & Rinck, 2011). Schuck et al. (2011) conducted a randomized study of college-age students who reported pathological skin picking; participants were provided four sessions of CBT and compared to those on a waitlist. These researchers observed a significant decrease in psychosocial impact of skin picking, severity of skin picking and perceived strength of skin picking cognitions in the group randomly assigned to the four sessions of CBT. These treatment effects were maintained at a two-month follow-up, thus suggesting that CBT is effective in reducing the severity of symptoms, effect of symptoms and dysfunctional cognitions associated with excoriation disorder.

Practically, CBT for clients with excoriation disorder is focused on using cognitive restructuring to counter dysfunctional thoughts (Schuck et al., 2011). Before engaging in CBT techniques, a counselor should ascertain the nature and location of the picking and provide clients with psychoeducation regarding the etiological and maintenance factors related to their disorder. Socratic questioning is one CBT technique used to help clients recognize their fundamental beliefs and automatic thoughts surrounding skin picking (Kress & Paylo, 2015). When applying this technique, the counselor generates a hypothesis about the client's thoughts (that lead to skin picking), but leads the client to the information rather than suggesting it. The client is led to insight through a series of questions regarding the topic of interest. For example, the counselor might believe that a client's skin picking obsessions become stronger when personal and professional obligations become overwhelming. The counselor might ask, "What feelings do you have when picking? What time of day do you typically pick? Are there ever days when you do not pick?" The counselor would use reflections to organize and expand upon the client's responses until they gain new insight about their thoughts, patterns and beliefs regarding this behavior.

When using CBT, irrational thoughts are examined for validity and replaced with more rational thoughts and behaviors (Kress & Paylo, 2015). For example, an individual tempted to engage in skin picking after an argument with a spouse would challenge the need to pick with more rational thoughts, such as, "Even if I become anxious, I can tolerate the anxiety. Instead of picking, I can clean the house or exercise." This type of change occurs over a period of time, and counselors and clients should celebrate small victories, such as delayed or reduced skin picking, as the more rational thoughts begin to become more salient.

CBT not only involves cognitive interventions, but also includes behavioral interventions such as homework, preventative measures, activity replacement and relapse prevention (Capriotti et al., 2015; Kress & Paylo, 2015; Schuck et al., 2011). Counselors may assign homework such as CBT thought logs to help clients track picking behaviors. While reviewing the logs in session, counselors can assist clients in developing preventative measures, such as wearing gloves or bandages to hinder skin

picking, and activity replacement such as reading a book, cleaning or watching television instead of skin picking. CBT also places a heavy emphasis on relapse prevention, or the preparation to prevent future urges to pick.

Habit Reversal Training

Habit reversal training (HRT) is an effective strategy for working with clients who have excoriation disorder (Capriotti et al., 2015; Grant et al., 2012; Teng, Woods, & Twohig, 2006). HRT is a behavioral approach that involves helping clients gain awareness of their skin picking and then replace the picking with more adaptive behaviors (Grant et al., 2012; Ravindran et al., 2009; Snorrason & Bjorgvinsson, 2012; Teng et al., 2006). The first step of treatment is awareness training, which helps clients who are often unaware of their skin picking to associate factors, such as time of day and specific situations, to skin picking behavior (Teng et al., 2006). To facilitate this awareness, a counselor may point out in-session skin picking behavior. After developing an awareness of antecedent situations (i.e., the situations that precede picking incidents), the counselor and client collaboratively develop a competing response, or another behavior that is inconsistent with skin picking, to substitute for the skin picking behaviors (Teng et al. 2006). An example of an alternative behavior would be clenching one's fist each time a client notices that he or she is picking. This competing response, which should be one that is easily applicable in a number of situations, diminishes the urge or reduces its intensity.

The next step in HRT is the establishment of a contingency management system or token economy involving rewards and punishments. This type of treatment approach allows the clients' behaviors to be rewarded as they make successive approximations toward the goal. Rewards and punishments must be meaningful to clients, and they also must be specific and timely. At first, rewards are extrinsic, such as verbal praise or toys with children. As target behaviors are reached (e.g., reduced skin picking), clients begin to access more intrinsic reinforcers (e.g., an increased sense of self-esteem, feelings of belonging within the community/society). Finally, clients are coached to consistently implement these operant conditioning strategies outside of session and to eventually apply them to new behaviors (Capriotti et al., 2015; Teng et al., 2006). The client gradually realizes that skin picking is not a necessary coping skill, as other, more adaptive behaviors can be used to effectively reduce stress.

Teng et al. (2006) conducted a controlled study in which they compared HRT treatment to a waitlist control group. These researchers demonstrated a significant reduction in skin picking behaviors at the termination of treatment and upon follow-up assessment, as compared to the control group. The research on HRT suggests that it is a promising approach for use with those who have excoriation disorder.

Acceptance and Commitment Therapy

Acceptance and commitment therapy (ACT), when used in conjunction with HRT, demonstrates clinical promise in treating those who have excoriation disorder (Capriotti et al., 2015; Flessner, Busch, Heideman, & Woods, 2008). Capriotti et al. (2015), through the use of multiple clinical case studies, demonstrated that Acceptance-Enhanced Behavioral Therapy (i.e., ACT plus HRT) decreased excoriation symptomology in three of four participants in their case study research. These results support the findings of a similar case study done by Flessner et al. (2008), which demonstrated decreased symptomatology of excoriation disorder when ACT was incorporated with HRT.

ACT uses mindfulness techniques to teach acceptance of negative thoughts and emotions and then combines behavior-change techniques to address unhealthy behaviors (Flessner et al., 2008). Initially,

the counselor helps the client investigate previous attempts to curb skin picking behaviors (such as avoidance or relaxation while picking). Then, the client and counselor work to distinguish between urges to pick (i.e., thoughts, feelings, sensations) and actual skin picking, emphasizing that even if urges are acted upon, they will soon return. As such, the focus is on increased distress tolerance and acceptance of urges (Kress & Paylo, 2015). The difficulty of controlling urges can be illustrated through metaphors in which the client gains control and a position of power over an undesirable, yet steadfast external circumstance (e.g., working is unavoidable, but you can find a job you enjoy).

Next, using ACT treatment, the client's ability to control his or her own thoughts and behaviors is highlighted. This emphasis on controlling behavior stands in contrast to most clients' natural inclination to focus on controlling or avoiding external situations. Next, the counselor and client work to modify and change the thoughts and feelings associated with urges to pick (Flessner et al., 2008). The client and counselor address six processes that contribute to healthy, flexible living: present-moment awareness; acceptance (as opposed to avoidance); nonjudgmental awareness of one's thoughts; values clarification; changing, rather than reducing, unhelpful thoughts; and short- and long-term behavioral goals. Lastly, treatment progress is reviewed, and the client and counselor engage in relapse management (Flessner et al., 2008; Twohig, Hayes, & Masuda, 2006). Counselors also can integrate medication management when therapeutically indicated.

Pharmacotherapy

If pharmacotherapy is used to treat excoriation disorder, it should be used in conjunction with counseling; medication can control physical symptoms, but contributing mental health factors must be addressed in order to holistically help the client make enduring behavior changes (Grant et al., 2012). Selective serotonin reuptake inhibitors, specifically Fluoxetine (Prozac), have been shown to be effective in treating excoriation disorder and other BFRB (Grant et al., 2012; Simeon et al., 1997). However, this effect has not been consistent across clients (Grant & Odlaug, 2009). Therefore, additional research on the effectiveness of medication is needed. Counselors should provide intentional treatments for clients while taking into account unique client considerations.

Special Considerations

Although those with excoriation disorder might go to great efforts to conceal their wounds from others (Grant & Odlaug, 2009), they are likely to admit to skin picking behaviors when effectively questioned by a mental health professional (APA, 2013). It is important to ensure the clients with excoriation disorder are physically well (i.e., free from medical complications associated with picking), and a referral to medical professionals to ensure physical safety and appropriate medical care may be necessary (Grant et al., 2012).

Excoriation disorder occurs more often in those who also have OCD (APA, 2013). Several additional disorders are often found to be comorbid with excoriation disorder, including trichotillomania, major depressive disorder, anxiety, psychotic disorders, neurodevelopmental disorders and factitious disorder (APA, 2013; Hayes et al., 2009). Picking behaviors also could be due to a general medical condition or substance use (e.g., such as with methamphetamine addictions), and these should be ruled out (APA, 2013).

Those with first-degree family members who have excoriation disorder are more likely to also develop skin picking behaviors (APA, 2013). However, skin picking often begins during puberty, and the onset is often associated with the development of skin irregularities (e.g., acne; APA, 2013, Tucker et al., 2011). It was found that approximately 87% of college-aged students in Turkey who had acne or

other skin blemishes displayed some skin picking behaviors, but only about 2% reported clinically-significant symptoms of excoriation disorder (Calikusu, Kucukgoncu, Tecer, & Bestepe, 2012). The aforementioned finding suggests that dermatological factors, such as acne, might explain the onset of excoriation disorder, but not necessarily the maintenance of such behaviors. As such, family history of such behaviors should be considered by counselors when assessing and treating this disorder.

Collaborative relationships with other professionals can be helpful when working with a client who has excoriation disorder. If clients are provided with psychopharmaceutical interventions, counselors should take care to communicate with the prescribing physician in order to help the client maintain proper medication schedules and to potentially provide psychoeducational support to the client (Grant et al., 2012). Although consultation with a dermatologist is not always necessary, this valuable resource should be integrated into treatment when possible, and open communication can ensure that clients are receiving the support that they need (Calikusu et al., 2012; Grant et al., 2012).

Finally, although excoriation disorder is now an official *DSM* diagnosis, the research literature on effective treatments is still in its infancy stage (Capriotti et al., 2015). Additional research also is needed to determine the prognosis of excoriation disorder. As previously indicated, researchers have found psychopharmaceutical and cognitive behavioral interventions to be promising (Flessner et al., 2008; Grant et al., 2012; Schuck, et al., 2011; Simeon et al., 1997), but additional outcome research still needs to be conducted on this disorder (Capriotti et al., 2015). Further research on this new *DSM-5* disorder will provide more concrete information regarding assessment and treatment options for this population.

Summary

The etiology of excoriation disorder is still being explored, and several theories are currently supported as viable options. Both biological and psychological factors appear to contribute to the development and maintenance of this disorder (Grant et al., 2012). Skin picking behaviors are often found in those who have higher levels of emotional impulsivity, and these behaviors might serve as a way for individuals to regulate their emotions.

There are several formal measures that can be used to aid in the assessment and diagnosis of excoriation disorder. In addition to formal quantitative measures, the functional analysis assessment is a helpful method that can be used to increase both the client's and the counselor's understanding of the behaviors (LaBrot et al., 2014). Regardless of the assessment procedures employed, counselors should explore all aspects of the client's life in order to create a comprehensive treatment approach.

Since excoriation disorder is a new diagnosis in the *DSM-5*, it is often overlooked or misdiagnosed. Counselors should fully assess a client's presenting concerns in order to determine an accurate and helpful diagnosis. Counselors also should note that this disorder is often comorbid with other mental disorders (APA, 2013; Grant et al., 2011; Hayes et al., 2009).

In terms of the treatment of excoriation disorder, CBT is one of the more evidence-based approaches (Grant et al., 2012; Schuck et al., 2011), as is HRT (Grant et al., 2012; Teng et al., 2006). ACT has been used with success with HRT (Capriotti et al., 2015; Flessner et al., 2008). Psychopharmacotherapy also holds promise as an effective adjunct to psychosocial treatments (Grant et al., 2012; Simeon et al., 1997).

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Adolescent Non-Suicidal Self-Injury: Analysis of the Youth Risk Behavior Survey Trends



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Issues regarding the diagnosis and treatment of non-suicidal self-injury (NSSI) continue to be of increasing concern to practitioners in educational and mental health settings. Given this rising concern, it is important to note that the majority of research regarding self-injury has focused on the symptomology and treatment of Caucasian females; little work has been done regarding the prevalence, presentation and treatment of self-injury with other populations (Marchetto, 2006). This article provides a rationale for addressing gender, culture and other issues of diversity in relation to self-injurious behaviors, including analysis of the Youth Risk Behavior Survey to provide empirical evidence for why additional issues of diversity need to be addressed. Implications for clinical counseling practice are discussed.

Keywords: self-injury, NSSI, adolescent, youth risk, trends

Self-injury is a significant issue with a variety of psychological, social, legal and ethical consequences and implications (Froeschle & Moyer, 2004; McAllister, 2003; Nock & Mendes, 2008; White Kress, Drouhard, & Costin, 2006). Self-injurious behavior is commonly associated with the cutting, bruising or burning of the skin. It also can include trichotillomania, interfering with wound healing and extreme nail biting (Klonsky & Olino, 2008; Zila & Kiselica, 2001). In assessing severity, it is important to note that self-inflicted wounds typically do not require any medical attention, as those who engage in self-injury will usually care for any open wounds in order to prevent infection (Walsh, 2006). The typical duration of a self-injurious act is usually less than 30 minutes, resulting in immediate relief from the emotional turmoil precipitating the behavior (Alderman, 1997; Gratz, 2007). It is difficult to estimate the prevalence of self-injury for many reasons. Nock (2009) noted that reports indicating increased estimates in this behavior derive from “anecdotal reports and estimates from small cross-sectional studies” (p. 81). Given the many ethical and legal ramifications involved in working with clients that self-injure, it is important to understand how self-injury typically manifests itself, how it affects differing populations based on gender and cultural differences, and the level of danger it truly represents to the person choosing to utilize it.

Self-Injury and Suicidal Intent

The current average age of those beginning to engage in self-injury is as early as 12 years old, but onset typically begins in adolescence (Lundh, Karim, & Quilisch, 2007; Trepal & Wester, 2007). Self-injury is found as a frequently occurring issue in the adolescent population (Jacobson, Muehlenkamp, Miller, & Turner, 2008; Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006). The majority of reported self-injury and research regarding it has been focused on Caucasian females. Within this particular population, self-injury is typically not associated with increased danger beyond the injury itself unless onset co-occurs with a psychotic episode or is co-morbid with suicidal ideation (Conaghan & Davidson, 2002; Walsh, 2006). Self-injury is the intentional harm to one’s self (usually in the form of cutting, burning, or hitting) to alleviate distress and regulate emotions (Nock & Favazza, 2009) with no intent to die. Usually, reporting of self-injury is necessitated by the concern that the act

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may possibly result in unintentional death; however, practitioners often simply confuse the behavior with suicidal intention (McAllister, 2003; Trepal & Wester, 2007). Suicide attempts and intention are clearly defined in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; American Psychiatric Association, 2013) as those that have the intent or aim to die. Self-injurious behaviors should be viewed as a form of self-help or coping to assist the person in feeling something different, instead of a suicide attempt (Favazza, 1998; Klonsky, 2007). A lack of consensus among researchers regarding the defining qualities of self-injurious behaviors has led to difficulty in discerning the difference between self-injury and suicide (Gratz, 2004; McAllister, 2003; Simeon, Favazza, & Hollander, 2001). As self-injury and other self-harming behaviors continue to be identified, researched and understood, new methods of evaluating these behaviors are developed. Suicide and self-injury are typically two different behaviors but often are aggregated in reports and evaluations. It was determined that data regarding the evaluation of risky adolescent behaviors might be useful for providing a tentative source for analysis. Given that self-injury, self-harm, and suicide attempts are a growing area of study, reliance on current and previous data sources for analysis of self-injury and self-harm behaviors can be used in order to highlight possible areas for research. Data from the Youth Risk Behavior Survey (YRBS; CDC, 2006), as gathered by the Centers for Disease Control and Prevention (CDC), has been used for the purpose of determining the prevalence of possible self-injurious behaviors among young women and young men from differing ethnic backgrounds.

Studies indicate mixed views on the degree of overlap between self-injury and suicidal ideation; therefore, data pertinent to the YRBS may only encompass youths within this overlap. Pattison and Kahan (1983) found that only 41% of those who self-injure reported suicidal ideation while self-injuring. "Another problem with much of the current literature is that little differentiation is made between self-injury and suicide attempts, which are very distinct behaviors" (Roberts-Dobie & Donatelle, 2007, p. 258). Therefore, it could be argued that if practitioners cannot clearly make a distinction between self-destructive acts, then adolescents reporting their behaviors might not be able to make the distinction between self-injurious intent and other possible intentions, such as suicide and frequent aggressive behaviors resulting in harm. Roberts-Dobie and Donatelle (2007) went on to state: "Self-injury is not a failed suicide attempt but often a coping mechanism for negative emotions" (p. 258). This conclusion also is shared by many researchers evaluating self-injury (Brown, Williams, & Collins, 2007; Gratz & Roemer, 2008; Klonsky, 2007; Marx & Sloan, 2002). The International Society for the Study of Self-Injury (ISSS), established in 2006, sought to clarify and understand self-injury and specifically define non-suicidal self-injury (NSSI). Following is their agreed upon definition:

The deliberate, self-inflicted destruction of body tissue resulting in immediate damage, without suicidal intent and for purposes not socially sanctioned. As such, this behavior is distinguished from: suicidal behaviors involving intent to die, drug overdoses, and other forms of self-injurious behaviors, including culturally-sanctioned behaviors performed for display or aesthetic purposes; repetitive, stereotypical forms found among individuals with developmental disorders and cognitive disabilities, and severe forms (e.g., self-immolation and auto-castration) found among individuals with psychosis. (ISSS, 2007)

It is important to note, however, that while there is a link between suicide and self-injury, it is a complicated relationship. Therefore, clinicians should always assess for suicidality when confronted with client self-injurious behaviors; however, immediately assuming suicide ideation or an active suicide attempt from reported self-injurious behavior can be therapeutically problematic. The essence of this complication presents a limitation in the analysis of the YRBS behavior data (CDC, 2006).

Treatment of Self-Injury

If self-injury is left untreated, increased severity and possible suicidality or suicide attempts may occur; therefore, it is important to recognize self-injury and treat the client appropriately and quickly in order to prevent complications. Knowledge with regard to possible presentation of self-injurious behavior as it pertains to intersections of gender, age and ethnicity also is important. Additionally, clinicians must recognize typical signs of self-injurious behaviors in relationship to diagnostic criteria. The likelihood of self-injurious behavior as a coping mechanism becomes more prevalent within certain psychological issues. The diagnoses most commonly associated with self-injury include major depression, borderline personality disorder, post-traumatic stress disorder and eating disorders (Klonsky & Muehlenkamp, 2007; Marx & Sloan, 2002; Nehls, 1998; Sansone & Levitt, 2002; Sargent, 2003). Self-injury has been found to be associated with acute stress related to relational aggression, abuse and dating violence (Hays, Craigen, Knight, Healey, & Sikes, 2009; Turnage, Jacinto, & Kirven, 2003). Since self-injury also can be co-morbid with suicidality, selected psychological and emotional states will be reviewed separately in terms of their individual indicators related to self-injury, and their effects on the severity of possible danger or harm to provide a framework for the importance of data related to populations not typically studied in association with self-injurious behaviors.

Self-injury has commonly been associated with the diagnosis of borderline personality disorder (BPD), although this association may relate more to ongoing trauma issues (Alderman, 1997; Naomi, 2002). Given the continued prevalence of the diagnosis in relation to self-injury, attention to self-injury with BPD is warranted. Those who are diagnosed with BPD, or display borderline features, and are engaging in self-injury typically display other self-destructive behaviors and decision making (Gratz, 2006; Sansone, Wiederman & Sansone, 1998), tend to have unresolved anger that is noticeable in everyday relations, and also may exhibit a need to distract themselves from their emotions (M. Brown, Comtois, & Linehan, 2002). These characteristics will be prominent over other clinical symptoms associated with BPD. BPD also is more commonly diagnosed among females, as is self-injurious behavior (Lundh et al., 2007). If indeed self-injurious behaviors are associated with a history of trauma, perhaps the presentation of self-injurious behaviors are overlooked when working with male clients due to the association of self-injury with BPD.

Gender and Self-Injury

Potential gender differences in the presentation of self-injury may exist for various reasons. Past studies focusing on particular forms of self-injury have focused on potentially unrepresentative female-only samples, thus misrepresenting the existence of a more diverse population of those engaged in self-injurious behaviors (Marchetto, 2006). Some research proposes that males are just as likely as females to self-injure and perhaps go about it differently or are more secretive (Gratz, 2001). Marchetto's study of 516 individuals engaged in skin-cutting as a form of self-injury found "no evidence for an overrepresentation of women" (p. 453). Other research supports this notion that there may not be a gender difference among certain types of self-injurious behavior (Izutsu et al., 2006; Muehlenkamp & Gutierrez, 2007). In addition, a recent study found no gender differences in prevalence of self-injury among college students, but noted that far fewer men were willing to complete the study (Heath, Toste, Nedecheva, & Charlebois, 2008). Furthermore, these authors warned against inaccurately interpreting the above issues as meaning a lower prevalence of self-injury exists among males. Seemingly, female adolescents are more likely to self-report instances of self-injury than male adolescents (Heath, Schaub, Holly, & Nixon, 2008), and male self-injurers are not diagnosed and conceptualized the same as females that self-injure (Healey, Trepal, & Emelianchik-Key, 2010). With these two compounding factors, males that self-injure are at a disadvantage to receive help with their self-injurious behaviors.

The information presented in this article is posed to present further evidence that suggests male self-injury exists and needs to be addressed in the assessment and treatment of presenting issues related to self-injury. Since depression is sometimes associated with suicidal ideation, self-injury and other harmful behaviors, recognition of the severity of client depressive symptoms through thorough assessment techniques becomes vital to treatment and selection of therapeutic interventions regardless of gender. Suicide is the third leading cause of death in adolescents and young adults, with 15% of those suffering from clinical depression ending their lives (Suicide Awareness Voices of Education, 2008). Symptoms, as outlined by the National Institute of Mental Health (2009), include and compare the early signs of making statements of prolonged despair or expressions of guilt as critical indicative signs of concrete plans for a suicide attempt. Occurrence of these signs becomes a major factor in assisting with assessment of severity. Suicidality has been linked to substance abuse, anxiety, mood disturbance and disruptive behaviors (Linehan, Comtois, Brown, Heard, & Wagner, 2006; Nock & Banaji, 2007; Wade & Pevalin, 2005). Risk factors that have been identified as highly correlated with successful suicide attempts include highly aggressive behaviors with a history of aggression, psychosis, impulsivity and bi-polar disorder (Renaud, Berlim, McGirr, Tousignant & Turecki, 2008). Becker and Grilo (2007) demonstrated that gender differences impacted how each risk factor affected the severity of the depression; however, low self-esteem was correlated with suicidality across both male and female populations. This article will use data from the YRBS and analyze it to provide empirical evidence for why issues of diversity need to be addressed within the self-injury and suicidality literature.

Data Sources

The YRBS is a national school-based survey developed by the CDC in order to monitor issues such as obesity, substance abuse, dietary habits, and unintentionally injurious and violent behaviors. Data files are made available to the public after analysis is completed through the CDC; data from the 2005, 2009, 2011 and 2013 surveys were used in this analysis.

Response Rate

As per the YRBS (CDC, 2005, 2009, 2011, 2013), at the school level, all regular public, Catholic, and other private school students, in grades 9 through 12, in the 50 States and the District of Columbia were included in the sampling frame. Puerto Rico, the trust territories, and the Virgin Islands were excluded. Schools were selected systematically with probability proportional to enrollment in grades 9 through 12 using a random start. All classes in a required subject or all classes meeting during a particular period of the day, depending on the school, were included in the sampling. Systematic equal probability sampling with a random start was used to select classes from each school that participated in the survey. In 2005, the overall response rate was 67% (158 schools participated); in 2009 the school response was 81% (158 participated); in 2011 it was 81% (158 participated); and in 2013 the response rate was 77% (148 participated). In total, 59,335 student responses were included in the datasets evaluated for the database review of behaviors associated with NSSI.

Methods

YRBS (2005, 2009, 2011, 2013) data were retrieved from the CDC in order to analyze the relationship between depression and self-injurious behaviors, including direct bodily self-injury or frequent aggressive behavior that resulted in bodily injury. The YRBS was designed to monitor health risk behaviors for adolescents in high school. For this analysis, comparisons were made with regard to gender and ethnicity to evaluate issues related to possible self-injurious behaviors, since the YRBS

does not differentiate between suicidal attempts and self-injurious behaviors. Data screening methods also were used to evaluate the variables used in the study to assure they met the criteria for logistic regression. Cases with missing data for the self-injury and self-injurious aggression items were excluded.

Variables

To assess for possible NSSI, items that pertained to self-injury and self-injurious aggression within the YRBS were pulled and re-coded into dichotomous variables to include the following questions: "During the past 12 months, how many times did you actually attempt suicide?" and "If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?" If the participant attempted suicide six or more times but the injury did not require medical attention, the behavior was considered to possibly represent NSSI, since self-injury has been shown to have overlapping qualities with suicidal attempts and is not easily recognizable or differentiated among clients and professionals in the field. Additionally, the following questions were assessed due to research indicating that frequent aggressive behaviors resulting in harm could be viewed as a form of self-injury: "During the past 12 months, how many times were you in a physical fight?" and "During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?" For these questions, those respondents who got into fights four or more times in a 12-month period and had to be evaluated by a medical professional were thought to be possibly engaging in self-injurious aggressive behaviors. Correlations were completed on these items in order to justify their grouping as a variable.

The self-injurious behavior questions were correlated at $r = .72, p < .001$ and coded as self-injurious when participants answered that they had attempted suicide more than four times in one year and/or had injured themselves physically, either requiring outside medical treatment or not requiring medical treatment. Questions regarding physical fighting were combined to form the aggression variable and were significantly correlated at $r = .42, p < .01$.

Self-injurious aggression was coded based on extremity of engagement in fighting and the resulting personal injury of the participant. As self-injury may manifest itself differently depending on gender and cultural expectations and experiences, extreme aggression that resulted in frequent hospitalization or medical care was considered to be a possible indicator of this alternative behavioral expression (Harris, 1995; McMahan & Watts, 2002). Self-injury has been shown to result in acting in or acting out behaviors as a way of engaging in emotional regulation (Bjärehed, Wängby-Lundh, & Lundh, 2012; Mikolajczak, Petrides, & Hurry, 2009). The way in which one chooses to manifest self-injury or the typology of the non-suicidal self-injurious behavior may present differently for males and females (Heath et al., 2008; Muehlenkamp & Gutierrez, 2007). Thus, both traditional and non-traditional methods for harm were evaluated for this study, as NSSI is sometimes thought to be a suicidal attempt or behavior by clinical professionals wanting to err on the side of caution because those who self-injure also may have co-occurring suicidal ideation. In contrast to the pressure for immediate and safe clinical intervention, however, those who choose to self-injure and those who attempt suicide often have differing attitudes toward life (Muehlenkamp & Gutierrez, 2004). For this study, logic seemed to dictate evaluating frequent suicide attempts that did not result in medical attention as a possible self-injurious behavior. To further evaluate the consideration of frequent suicide attempts (more than four in a year) as possible NSSI, correlations were conducted between the NSSI variable and items stating, "During the past 12 months, did you make a plan about how you would attempt suicide?" and "During the past 12 months, did you ever seriously consider suicide?" In the 2013 sample, the NSSI variable was significantly correlated with both items at $p < .001$, with

correlations of $r = .241$ and $.218$ respectively. Therefore, in the 2013 data set, there was indication that as the attempts increased the participant was more likely to state that they had seriously considered suicide or made a plan in the past year. However, the correlation was low, accounting for only 24 and 22% of participants who stated they had attempted four or more times in a year, a similarity with all other years included in this analysis. Thus, the fact that the majority of those who indicated they attempted suicide four or more times did not indicate they had made plans to commit suicide or had even thought about it seriously points toward an indication that the item also may be measuring NSSI rather than just suicide attempts.

With regard to the demographic variables, gender, ethnicity and depression were all coded dichotomously. Variables were created as described in order to complete a binary logistic regression. This analysis was chosen in order to evaluate the odds that a certain behavior would yield results with regard to the predictor variables used. Of those demographic variables included in the study and coded dichotomously from 2005, 60% identified as Caucasian and 37% identified as being from a marginalized or underrepresented group (e.g., Black/African American, Hispanic, multiple heritage). The remainder did not identify their ethnicity. With regard to gender or biological sex, 49% of the sample indicated they were female while 50% of the sample indicated they were male. The remainder did not respond to the item for male or female identification. Concerning age, 37% of the sample indicated they were 15 or younger and 63% of the sample was older than 15. All of the participants sampled were in grades 9–12. Demographic statistics were similar across each year of analysis.

Results

Separate analyses were conducted for each year of the YRBS included in this review. Trends were assessed and will be discussed following the presentation of results. Binary logistic regressions were completed to determine predictors for both possible non-suicidal self-injurious behavior and potentially self-injurious aggressive behaviors. Categorical contrast baselines were set for: Caucasian, male, age less than 15, reports of no feelings of hopelessness, and no self-injurious aggression.

YRBS 2005 Analysis

Using self-injurious behavior as an outcome variable and gender, age, ethnicity, extreme aggression and depression as covariates predictor variables, a binary logistic regression was completed on the available data set to analyze the goodness of fit. The result was Nagelkerke $R^2 = .240$ which indicated that the variables included in the model accounted for 24% of the variance. The Hosmer and Lemeshow test used for the logistic regression was not significant ($\chi^2 = 10.16, p = .180$), indicating that the predicted probabilities match the observed probabilities. These results show a probability that it is three times more likely that those engaging in extreme self-injurious aggression also will engage in self-injurious behaviors and 11 times more likely for those who are depressed to engage in self-injurious behaviors controlling for all other predictor variables (see Table 1). Age and race did not seem to play a significant role in predicting self-injurious behavior, as both age groups (early adolescents and late adolescents) were just as likely to engage in self-injury. In addition, those from different ethnic backgrounds were just as likely to engage in self-injury when controlling for all other factors. Males were half as likely as females to engage in self-injury. However, males were three times as likely to engage in extreme aggression while those who were reportedly depressed were twice as likely to engage in possible self-injurious aggressive behavior (see Table 2).

Table 1.*Regression of Self-Injurious Behavior*

Variables	B	Expected B	r
Aggression*	1.220	3.388	.141*
Depression*	2.381	10.819	.319*
Late Adolescence (age)	.234	.791	-.037
Male*	.543	.581	-.090*
Caucasian	.056	1.057	.028

Note: *Significant at $p < .001$, Nagelkerke $R^2 = .240$

Table 2.*Regression of Extremely Aggressive Behaviors*

Variables	Expected B	B
Male*	2.86	1.05
Depression*	1.92	.653

Note: *Significant at $p < .001$

YRBS 2009 Analysis

In Table 3, the regression for self-injurious behavior is presented. Given the base rates of the two coded options, 83% of the sample choose not to involve themselves in possible self-injurious aggressive behaviors (intentional fighting resulting in injury); therefore, the best predictive strategy is to assume that, for every case, the subject will choose not to participate in fighting behavior that would likely result in injury requiring medical attention. In essence, the odds of someone engaging in aggressive self-injury are approximately 20% ($\text{Exp}B = .205$). In testing the predictive model of age, gender, race, depression and likelihood to engage in individual self-injury, results indicate that the model was significantly predictive at $X^2 = 984.4, p < .001$. The Nagelkerke $R^2 = .110$ is an indication that this model would only account for 11% of the variance in predicting self-injurious aggressive behaviors (intentionally fighting to result in injury). After adding the predictive model, 83% of cases were correctly classified, as opposed to an 80% classification rate prior to the addition of variables to the predictive model. The Hosmer and Lemeshow test was not significant ($\chi^2 = 18.83, p > .001$), indicating that the predicted probabilities match the observed probabilities. According to the predictive model, if the participant were female, she would be .326 as likely to engage in aggressive self-injurious behavior as compared to males. A Wald Test was used to examine the true value of the parameter based on the sample and all were found to be significant at $< .001$.

Table 3.*Regression of Self-Injurious Behaviors*

Variables	B	Expected B	<i>r</i>
Aggression	1.220	3.388	.141*
Depression	2.381	10.819	.319*
Late Adolescence (age)	-.234	.791	---
Male	-.543	.581	-.090*
Caucasian	.056	1.057	---

Note: *Significant at $p < .001$, Nagelkerke $R^2 = .111$

YRBS 2011 Analysis

For the 2011 sample population, 1,300 participants indicated engaging in physical fights four or more times in a year, resulting in the need for medical attention more than once, which fit the criteria for self-injurious aggression (approximately 8% of those surveyed; self-injurious aggression variable). Of those included in analysis, 201 participants indicated that they had attempted suicide four or more times, attempts that did not require medical attention (NSSI variable). Of those students responding, over 4,000 (approximately 29%) indicated feeling sad or hopeless every day for 2 weeks or more in a row during the past year. Feeling sad or hopeless had a weak negative correlation with the NSSI variable with $r = -.146$, $p < .001$. Similarly, feeling sad or hopeless had a weak negative correlation with self-injurious aggressive behaviors with $r = -.097$, $p < .001$. NSSI and self-injurious aggression had a significant weak positive correlation with $r = .195$, $p < .001$. Of those responding to the 2011 YRBS, 7,574 indicated they were Caucasian and 1,629 indicated they were younger than 15 years old.

The binary regressive model for the 2011 data indicates a resultant $X^2(4) = 370.27$, $p < .001$. The Nagelkerke $R^2 = .241$ indicates that this model would only account for approximately 24% of the variance in predicting self-injurious behaviors as defined by items 27 and 28 of the YRBS. Of those surveyed, 69.3% were included in analysis. The Hosmer and Lemeshow test was not significant ($\chi^2 = 2.39$, $p = .935$), indicating that the predicted probabilities match the observed probabilities. Wald statistics are significant at $p < .001$ for the item indicating possible depression, age and the variable assessing possible aggressive self-injury (engaging in numerous physical fights). Wald statistics for race were approaching significance at $p = .089$; however, age and gender were not significant. Therefore, these demographic variables were likely not contributing significantly to the prediction of NSSI as defined in this study.

Of those participants who identified as possibly engaging in non-suicidal self-injurious behaviors, 98.5% of cases were correctly classified by the model. The classification of cases was not changed when the variables of non-suicidal aggression, depression, age, gender and race were included. The calculated r statistic for non-suicidal aggression was .30, and .24 for the depression variable, indicating that both likely accounted for 54% of the predictive power of the model. The demographic variables could not be calculated due to their low contribution to the predictive model. While z^2 was significant for age, the Wald statistic itself was not large enough to calculate a standard analogue of r .

It is important to note that the lower end of the confidence interval for all variables included in the model was less than one, with the exception of the item variable measuring depressive symptoms.

This finding is indicative of the likelihood that as non-suicidal aggressive behaviors increase, so too will the possibility for NSSI; however, this relational direction may not be true for all cases occurring within the 95% confidence interval. Nevertheless, we can be more confident in the relationship between indications of non-suicidal self-injurious behaviors (as defined by this study) and the depressive symptoms measured through item 24 of the YRBS.

The Hosmer and Lemeshow's measure of R^2 is .24, indicating a moderate effect size. With regard to probability analysis of the significant variables, it should be noted that if a participant were feeling sad or hopeless, they would be 9.47 times more likely to engage in non-suicidal self-injurious behaviors as defined by this study. If a subject were engaging in multiple fights that resulted in injury, the participant would be 9.317 times more likely to engage in multiple "suicide" attempts that did not result in the need for medical attention. Finally, if a participant was younger than age 15 at the time of this survey, the subject was almost twice as likely to engage in non-suicidal self-injurious behavior (Table 4). Probabilities for binary regression of self-injurious aggression with regard to sex and depressive symptoms can be found in Table 5.

Table 4.

Regression of Self-Injurious Behavior

Variables	B	Expected B	<i>r</i>
Aggression*	2.232	9.317	.30*
Depression*	2.249	9.479	.24*
Age	.677	1.968	--
Male	.048	1.049	--
Caucasian	.290	1.336	--

Note: *Significant at $p < .001$, Nagelkerke $R^2 = .241$, Initial -2LL = 1629.395

Table 5.

Regression of Non-Suicidal Aggressive Self-Injury

Variables	Expected B	B
Male*	3.098	1.131
Depression*	2.485	.910

Note: *Significant at $p < .001$; Nagelkerke $R^2 = .068$, Initial -2LL = 8717.850

YRBS 2013 Analysis

For this sample population, 872 participants indicated that they engaged in physical fights four or more times in a year, resulting in the need for medical attention more than once. Of those students responding, over 4,000 indicated feeling sad or hopeless every day for 2 weeks or more in a row during the past year, and 177 participants indicated that they attempted suicide four or more times

but did not require medical attention for those attempts (conceptualized as possible non-suicidal self-injurious behavior). Of those indicating their ethnicity, 6,416 participants indicated that they were Caucasian. The binary regressive model for the 2013 data indicates a resultant $X^2 (5) = 295.731, p < .001$. As indicated in table 6, the Nagelkerke $R^2 = .222$, which indicates that this model would only account for approximately 22% of the variance in predicting self-injurious behaviors as defined by items 27 and 28 of the YRBS. The Hosmer and Lemeshow test was not significant ($\chi^2 (7) = 8.281, p = .308+$), indicating that the predicted probabilities match the observed probabilities. Wald statistics are significant at $p < .001$ for the item indicating possible depression and the variable assessing possible aggressive self-injury (engaging in numerous physical fights). Wald statistics for race, age and gender were not significant; therefore, these demographic variables are not making a statistically significant contribution to the prediction of NSSI.

As indicated in tables 6 and 7, of those participants who identified as possibly engaging in non-suicidal self-injurious behaviors, 98.7% of cases were correctly classified by the model. The classification of cases was not changed when the variables of non-suicidal aggression, depression, age, gender and race were included. Calculated r for non-suicidal aggression was .32, and .22 for the depression variable, indicating that both likely accounted for 54% of the predictive power of the model. The demographic variables could not be calculated due to their low contribution to the predictive model. It is important to note that the lower end of the confidence interval for variables not significantly contributing to the model was less than one.

Table 6.

Regression of Self-Injurious Behavior

Variables	B	Expected B	r
Aggression*	2.422	1.258	.32*
Depression*	2.040	.119	.22*
Age (<15)	.230	7.693	--
Sex (Male)	.063	1.065	--
Ethnicity (Caucasian)	.149	1.161	--

Note: *Significant at $p < .001$, Nagelkerke $R^2 = .222$, -2LL = 1409.043

Table 7.

Regression of Non-Suicidal Aggressive Self-Injury

Variables	Expected B	B
Male*	1.086	2.963
Depression*	.973	2.646

Note: *Significant at $p < .001$; Nagelkerke $R^2 = .061$, Initial -2LL = 6361.219

Discussion

In completing this analysis, it is evident that further study is needed in the area of self-injury with regard to outward expression in the form of extremely aggressive behaviors, prevalence among differing ethnic groups and prevalence in the male population. Currently, most research is focused on adolescent Caucasian females, indicating that self-injury may be more prevalent among females and those of Caucasian descent (Whitlock, 2010). Data from the current study indicates that perhaps males and other ethnic groups also are engaging in this destructive coping mechanism, perhaps in differing ways than are being focused on by current conceptual and empirical works. Researchers (Whitlock, Eckenrode, & Silverman, 2006; Matsumoto et al., 2005) indicate that males are more likely to injure areas of the body that are more sensitive when compared to females and to use more severe methods to self-injure. Male self-injurers show injuries to the chest, face, or genitals and the injuries sustained often have more long-term repercussions than those of females who tend to self-injure arms and legs. Males also tend to burn themselves and use hitting and punching type behaviors, whereas females tend to cut (Sornberger, Heath, Toste, & McLouth, 2012). The results of this analysis is consistent with the literature that indicates self-hitting or physically aggressive behaviors resulting in injury is a more typical typology of self-injurious behaviors for adolescent males (Izutsu et al., 2006). By studying a variety of populations, the definition of self-injury can be extended in order to clinically expand other, less damaging ways of coping with extreme emotional discord. Future research is needed concerning self-injury in adolescent males as a singular group as well as studying both males and females with ethnicity and cultural identity as variables.

Expanding the definition of self-injury to include frequent aggressive behaviors that result in harm to the self may be prudent. For instance, Harris (1995) evaluated 363 Hispanic and Caucasian university students with regard to endorsement of aggressive behaviors. He found that males, in general, were more likely to endorse fighting, and Hispanic males were more likely to endorse aggressive behaviors. Harris theorized that this endorsement might translate to emotional regulation factors. Nock (2009) also stated that the majority of current studies on self-injury have not addressed culture and gender issues when discussing self-injury and would, at times, exclusively focus on samples of Caucasian women. He indicated that this approach could conceivably lead to issues in fully evaluating the legal and ethical ramifications of self-injury. Nock's criticism of not enough research to evaluate the self-injurious prevalence in different settings, age groups, cultures, and with men underlines the need for more investigation. Limited studies have also examined the differences between race, ethnicity and culture among those that engage in self-injurious behavior (Yates, Tracy, & Luthar, 2008). Gratz et al. (2012) found that reporting rates were higher for Caucasian girls as opposed to Caucasian boys, and higher for African American boys as opposed to African American girls. Such findings provide evidence to support the idea that racial and ethnic backgrounds moderate the gender differences in the rates of self-injury. Results from the YRBS provide further evidence that this is indeed an issue that spans culture and gender domains. Research that expands to fully include gender, racial, cultural and age differences is certainly warranted.

If regular harm-to-self aggressive behaviors were included in the definition of self-injury, assessment practices as well as mental health treatment would benefit. Currently, treatments for self-injury include approaches consistent with dialectical behavioral therapy (DBT) and cognitive-behavioral therapy (CBT), as well as interventions associated with each approach including mindfulness, regulating emotions, distress tolerance, and thought stopping (Trepal & Wester, 2007). However, if intersections of gender and culture are to be considered, it is important that a broader holistic approach to the conceptualization and treatment of self-injury be taken. For example, while CBT can serve to address

immediate behavioral concerns and provide alternative coping mechanisms for clients as they process the meaning of their behaviors, treatment for the underlying issue is suggested in order to ensure long-term success. Therefore, for any clinical treatment to be optimally helpful and globally applicable, having useful, relevant research data is a must.

Limitations, Implications and Future Research

The limitations of this study are noted throughout, including a lack of clear consensus among practitioners on how to diagnose and treat self-injury. There is a lack of understanding of how self-injurious behaviors are connected to suicidal intent. Clinicians will diagnose suicidal intent out of fear that the injury could result in unintentional death, which ignores the intention of the act (McAllister, 2003; Trepal & Wester, 2007). By further examining self-injury and the measures that exist, the differences can be more clearly defined so practitioners clearly assess for self-injury. The reporting rates on self-injury are difficult to clearly identify and define due to confusions, including little information regarding culture, ethnicity and gender differences. Measures like the YRBS are beneficial, yet lump together the behaviors and are conducted often. This study attempted to further examine the YRBS responses in hopes to show the importance of differentiation between self-injury and suicide intent among various ethnicities, cultures and genders.

Previous research has shown that when underlying issues related to trauma, depression or other related stressors are not addressed, self-injurious behaviors are likely to reoccur later in life even after they have ceased for a number of years (Alderman, 1997; Conaghan & Davidson, 2002; Walsh, 2006). If other presenting behaviors, such as self-injurious aggression, are not recognized as a similar coping mechanism or way of emotionally regulating distressing feelings, appropriate diagnosis and treatment might be elusive, time-consuming and expensive. Therapeutic interventions need to match the client's presenting concerns and the underlying purpose driving the behavior. The possible cultural and social context involved in the client's internal perspectives on behavioral choices and subsequent actions might be useful to evaluate. This would allow for space to create a greater sense of self-awareness and thus provide an increased likelihood that the client will be able to regulate or cope with their distressing emotions in a useful and self-empowering way. Feminist, Adlerian, and narrative interventions could be used to help facilitate this process, as they are each grounded in creating awareness of societal influences with regard to one's personal process, purpose, and self-perceptions (McAllister, 2001; Sweeney, 2009; Worell & Remer, 2003). Mental health counselors may want to evaluate how their current theoretical orientation can help them conceptualize self-injury in productive and useful ways to empower the client toward gaining a greater sense of self-awareness and openness to treatment. Interventions from a variety of counseling perspectives offer clinicians more treatment choices, and more treatment choices translate into greater success in addressing a client's problem. Research that includes the whole picture of self-injurious behavior provides the most benefit for successful clinical practice.

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Mental Health Practitioners' Perceived Levels of Preparedness, Levels of Confidence and Methods Used in the Assessment of Youth Suicide Risk

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Mental health practitioners working within school or community settings may at any time find themselves working with youth presenting with suicidal thoughts or behaviors. Although always well intended, practitioners are making significant clinical decisions that have high potential for influencing a range of outcomes, including very negative (e.g., completed suicide) to very positive (e.g., on path to recovery). This study used an exploratory descriptive survey design to determine practitioner levels of preparedness, levels of confidence and methods used to assess suicide risk in youth. Practitioner respondents (N = 339) to a 23-item survey included professional counselors, school counselors, social workers, school psychologists and psychologists. Key findings indicate insufficient and inconsistent levels of preparedness and confidence, with respondents predominantly using an informal, non-structured interview method to obtain suicide risk level. Implications suggest a need for increased graduate training, supervision and ongoing skill development in suicide prevention and assessment.

Keywords: confidence, suicide risk, preparedness, school counselors, mental health

Youth suicide is a significant public health concern and efforts to reduce youth suicide remain a national priority (Kung, Hoyert, Xu, & Murphy, 2008; National Action Alliance for Suicide Prevention: Research Prioritization Task Force, 2014). In the United States, there were 40,600 suicides in 2012, averaging 111 suicides per day (Centers for Disease Control and Prevention [CDC], 2014a). Of the total number of suicides, 5,183 were youth suicides, averaging 14 youth suicides daily, or one youth suicide every 1 hour and 42 minutes (Drapeau & McIntosh, 2014). Youth suicide is the third leading cause of death between the ages of 10 and 14 and has become the second leading cause of death between the ages of 15 and 24 (CDC, 2014a). The results from the 2013 Youth Risk Behavior Surveillance (YRBS) reported 29.9% of high school students felt sad or hopeless almost every day for 2 weeks or more; 17% of high school students seriously considered attempting suicide; 13.6% of high school students made a suicide plan about how they would attempt suicide; and 8% of students attempted suicide one or more times (CDC, 2014b).

Efforts to address the increasing rate of youth suicide call for the identification of existing training and preparation gaps currently faced by practitioners (National Action Alliance for Suicide Prevention: Research Prioritization Task Force, 2014). These gaps pose many challenges for practitioners to effectively provide appropriate interventions. Although previous studies have investigated training gaps among specific professional disciplines (Debski, Spadafore, Jacob, Poole, & Hixson, 2007; Dexter-Mazza, & Freeman, 2003; O'Connor, Warby, Raphael, & Vassallo, 2004), the current study investigated a broader representation of disciplines including social workers, school counselors, professional counselors, school psychologists and psychologists. This study examined practitioner self-perceived levels of preparedness, levels of confidence and methods used in the assessment of youth suicide.

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Practitioner readiness in suicide assessment. In approximately eight of ten suicides, youth give advance clues or warning signs of their intentions that can be detected by others (McEvoy & McEvoy, 2000; Poland & Lieberman, 2002). In a study spanning four years of youth in a rural school district (N = 5,949) screened for suicidal thoughts, 670 (11%) reported having suicidal thoughts within the past year or past few days (Schmidt, Iachini, George, Koller, & Weist, 2015). Practitioners working within school or community mental health settings have an opportunity to play a critical role in the identification, assessment and prevention of youth suicide (Singer & Slovak, 2011). Within either setting, practitioners will encounter clients having suicidal thoughts or behaviors (Rudd, 2006). The practitioner's responsibility in the assessment of suicide is to estimate risk based on identifying warning signs and associated behaviors and to respond appropriately (Bryan & Rudd, 2006).

In a national sampling of social workers, 93% of the respondents reported having worked with a suicidal patient (Feldman & Freedenthal, 2006), and 55% of clinical social workers reported having a patient attempt suicide (Sanders, Jacobson, & Ting, 2008). In a study of psychology doctoral interns (N = 238) completed by Dexter-Mazza and Freeman (2003), 99% reported providing services to suicidal patients and 5% reported experiencing a patient death by suicide. Across professional disciplines, 22% to 30% of social workers, counselors and psychologists reported having a patient die by suicide (Jacobson, Ting, Sanders, & Harrington, 2004).

Irrespective of the level of suicide training, comfort level or experience (i.e., even those with limited training and preparedness), the circumstances for which practitioners meet with a suicidal client are not only stressful, but also have legal and ethical ramifications (Cramer, Johnson, McLaughlin, Rausch, & Conroy 2013; Poland & Lieberman, 2002). Research suggests significant gaps exist related to the practitioner's training and readiness to perform suicide risk assessments, highlighting training deficits in the level of preparedness, level of confidence and methods used to determine suicide risk level (Smith, Silva, Covington, & Joiner, 2014).

Although youth suicide remains a national concern and priority, gaps appear most prominent in translating research into practice in developing and providing appropriate levels of training and supervision for practitioners (Smith et al., 2014). Research to support this concern offers valuable recommendations (Osteen, Frey, & Ko 2014; Schmitz, Allen, Feldman, et al., 2012); however, despite these recommendations, training and preparation continue to lag (Rudd, Cukrowicz, & Bryan, 2008). Practitioner competency skills in suicide assessment continue to be neglected by colleges, universities, licensing bodies, clinical supervisors and training sites that can have the greatest impact in reducing youth and adult suicide (Schmitz et al., 2012).

Practitioner preparedness. In the past several decades, researchers began identifying gaps in suicide risk knowledge, finding that practitioners were inadequately prepared to assess suicide risk. In master's and doctoral clinical and counseling psychology training programs, 40–50% were found to offer formalized training in suicide assessment and management of suicide risk (Kleespies, Penk, & Forsyth, 1993). Suicide-specific training was only included in 2% of accredited professional counseling programs and 6% of accredited marriage and family therapist training programs (Wozny, 2005).

Training also has been identified as limited among social work graduate programs, averaging 4 hours or fewer specific to suicide education (Ruth et al., 2009). In a study by Feldman and Freedenthal (2006) randomly surveying social workers through the National Association of Social Workers (N = 598), almost all of the social work participants (92.3%) reported working with a suicidal client; however, only 21.1% received any formal suicide-related training in their master's program.

Of the 21.1% of social workers receiving formal training, 46% specified their suicide-devoted training was less than 2 hours.

This pattern continued as additional studies found psychology doctoral interns did not receive adequate training in suicide assessment and/or managing suicide risk in clients. Neither did they receive the necessary levels of clinical supervision in suicide assessment (Mackelprang, Karle, Reihl, & Cash, 2014). In a study of psychology graduate school programs, 76% of the program directors indicated a need for more suicide-specific training and education within their programs but discovered barriers to implement this training (Jahn et al., 2012). The chief barrier reported by the directors was the absence of guidance and curriculum requirements to provide training and, secondly, the inability of colleges to create space in the existing curriculum schedule for added classes (Jahn et al., 2012).

In a survey that included members of the National Association of School Psychologists (N = 162), less than half (40%) of the respondents reported receiving graduate-level training in suicide risk assessment (Debski et al., 2007). Most school psychologists in this study reported feeling at least somewhat prepared to work with suicidal students while doctoral trained practitioners reported feeling well prepared.

School counselors share similar gaps in their preparation to provide suicide intervention and assessment to youth. Research conducted by Wachter (2006) indicated that 30% of school counselors had no suicide prevention training. In a study conducted by Wozny (2005), findings indicated that just 52.3% of the school counselors, averaging 5.6 years of experience, were able to identify critical suicide risk factors. This study exposed competency gaps in suicide assessment, training and intervention consistent with practitioner disciplines that were identified within this study. This is consistent with previous study findings (National Action Alliance for Suicide Prevention, 2014; Schmitz et al., 2012) that identified insufficient training and preparation of practitioners in the assessment and prevention of youth suicide and suicide in general.

Practitioner confidence. Although most practitioners will encounter youth with suicidal thoughts and behaviors, many lack the self-confidence to effectively work with suicidal youth. The lack of confidence appears related to competency levels and limited training (National Action Alliance for Suicide Prevention, 2014; Oordt, Jobs, Fonseca, & Schmidt, 2009).

In contrast, researchers found that as practitioner risk assessment skills increased through suicide-specific training, noticeable increases were measured in practitioner self-confidence (McNiel et al., 2008). Oordt and colleagues (2009) studied mental health practitioner levels of confidence after receiving empirically-based suicide assessment and treatment training. The results indicated that self-reported levels of practitioner confidence increased by 44% and measured a 54% increase specific to self-confidence levels related to the management of suicidal patients. In addition, studies of school counselors identified correlations between self-efficacy, confidence and the ability to improve clinical judgment in providing suicide interventions and assessment (Al-Damarki, 2004).

Adequate training and experience in suicide prevention and assessment has been found to increase practitioner levels of confidence in conducting risk assessments and management planning (Singer & Slovak, 2011). Research suggests that confidence increases the practitioner's ability to estimate suicide risk level, make effective treatment decisions and base recommendations when conducting a quality assessment. However, when the assessor is not confident, the assessment is more prone to errors or missed information, decreasing the accuracy of their assessment (Douglas & Ogloff, 2003).

Paradoxically, overconfidence produces similar results as practitioners lacking confidence. Tetlock (2005) reported that overconfident practitioners are more prone to making errors during a suicide risk assessment unless their clinical judgment is further supported by objective evidence such as using a formal, validated and reliable method of assessment.

Methods Used in Suicide Assessment

There are several categories of suicide assessment instruments developed for youth (Goldston, 2003; National Action Alliance for Suicide Prevention, 2014). These include detection instruments like structured and semi-structured interviews; survey screenings that include self-report inventories and behavior checklists; and risk assessment instruments that include screenings, self-report questionnaires and multi-tier screening assessments.

Across settings including schools, emergency departments, primary care offices and community mental health offices, studies indicate that inconsistent methods are used to assess suicide risk (Horowitz, Ballard, & Paoa, 2009). In most instances, the use of published and validated suicide screening tools are not being properly used as intended or designed, which impacts their reliability and validity (Boudreaux & Horowitz, 2014). This may represent and reflect the practitioner's limited training, confidence and experience in these areas.

In addition, the documentation of the suicide assessment also can reflect the level of the practitioner's training and knowledge of suicide assessment. O'Connor and colleagues (2004) noted that practitioner skill deficiencies in youth suicide assessment are likely to appear in clinic notes as a brief statement, "patient currently denies suicidal thoughts," based on the practitioner's impressionistic and subjective perception after completing a brief unstructured interview. This is commonly the only form of documentation obtained by the practitioner (O'Connor et al., 2004). Research consistently provides evidence across disciplines that some practitioners are not prepared to make clinical judgments (Debski et al., 2007; Jahn et al., 2012; Mackelprang, et al., 2014; Ruth et al., 2009; Smith et al., 2014). This study offered an opportunity to contribute to the understanding of practitioners' self-perceived competencies in the assessment of youth suicide while identifying existing gaps in training.

The Current Study

In previous studies, research has focused on confidence and preparedness levels only in specific disciplines related to the identification and assessment of suicidal youth (Al-Damarki, 2004; Debski et al., 2007; Wozny, 2005). This study encompassed a much broader representative sample of practitioner disciplines including psychologists, social workers, school counselors, professional counselors and school psychologists.

The purpose of this study was to determine relationships among practitioners' self-perceived levels of preparedness, levels of confidence and methods used to perform suicide risk assessments in youth. These efforts were guided by the following research question: What are the relationships among the self-perceived levels of preparedness, levels of confidence, and methods used in the assessment of suicide risk for practitioners whose responsibilities require suicide risk assessment and management? In order to address this, survey questions were designed to obtain participant responses related to skill development, preparation, confidence and methods used in the process of conducting suicide risk assessments.

Method

Procedures and Instrumentation

Since this study sought to collect data using human subjects, the proposal was reviewed and approved by the Wilmington University Human Subjects Review Committee prior to beginning this study. An exploratory descriptive survey design examined practitioner self-perceived levels of preparedness, levels of confidence and methods used to assess suicide risk in youth. Using a quantitative method to guide this study, the researcher attempted to recruit practitioners positioned and responsible for suicide risk assessment. This included working in cooperation with and posting the survey on the Maryland School Psychologists' Association Web site and the University of Maryland Center for School Mental Health Web site. The survey was forwarded to school districts in Maryland and Virginia and directed to school counselors, school psychologists, and school-based mental health professionals, including social workers and professional counselors. In addition, the survey was forwarded to multiple outpatient mental health clinics in the mid-Atlantic region of the United States. Practitioners were provided with information about the survey, study purposes and ethical standards, and it was noted that participation was voluntary and confidential. Practitioners submitted their responses online, allowing the researcher to evaluate self-reported levels related to suicide assessment. Participants were provided with an access link to anonymously complete the survey using SurveyGizmo. The completed data were then entered into an Excel spreadsheet database.

The Child and Adolescent Suicide Intervention Preparedness Survey was the instrument developed for this study. This researcher received prior approval from the authors of two previously published surveys (Debski, et al., 2007; Stein-Erichsen, 2010) while adding specific queries for the purposes of this study. The survey by Debski and colleagues (2007) included a 42-item questionnaire with vignettes that measured the training, roles and knowledge of school psychologists. These questions targeted participant confidence and perceived levels of preparedness that also were sought in this current study, but from a broader discipline base.

The survey by Stein-Erichsen (2010) included a 55-item measure designed to identify confidence levels of school psychologists providing suicide intervention and prevention within schools. The survey questionnaires designed by Stein-Erichsen (2010) and Debski and colleagues (2007) offered questions adapted for this study specifically focusing on preparedness levels, confidence, roles, methods used to assess suicide levels, and omitted survey questions not relevant to this study. This resulted in a 23-item survey targeting practitioner levels of training, preparedness, confidence and the identification of additional training needs.

Participants

The study had 339 participants representing school counselors (N = 107/32%); social workers (N = 90/27%); school psychologists (N = 37/11%); professional counselors (N = 35/11%); psychologists (N = 5/1%); other (N = 62/18%); and three participants with unknown professional identification.

The final sampling of participants included 43 males, 292 females and four participants with unknown gender identification. Participants averaged in age ranges 22–29 (N = 33/10%), 30–39 (N = 105/31%), 40–49 (N = 94/28%), 50–59 (N = 61/18%) and ages 60 and above (N = 45/13%). The participants responded to the item querying level of education as having a bachelor's degree (N = 18/6%), doctoral degree (N = 14/4%), master's degree (N = 275/81%), and other (N = 28/8%) including associate levels of education, as well as four (1%) participants with unknown educational levels.

The participants represented a broad but targeted sampling from a variety of employers, including school settings (N = 166/49%); outpatient mental health settings (N = 108/32%); mental health agencies (N = 31/9%); and other settings (N = 33/10%); as well as one participant with an unknown employment setting. The participants also identified their employment environment as urban (N = 56/60%), rural (N = 174/52%), and suburban (N = 105/31%).

Participants identified the practitioner responsible to assess suicide risk within their work setting having multiple response options (see Table 1). These included a psychiatrist (N = 85/25%), nurse (N = 57/17%), school counselor (N = 179/53%), social worker (N = 168/50%), teacher (N = 7/2%), school psychologist (N = 154/46%), school mental health professional (N = 125/37%), psychologist (N = 64/19%), professional counselor (N = 101/30%), and other (N = 29/9%) including paraprofessionals, while 19 participants (6%) reported they do not complete suicide risk assessments.

Table 1

Participant discipline most likely responsible to provide a suicide risk assessment.

	Participant Response	Percentage
School Counselor	179	53%
Social Worker	168	50%
School Psychologist	154	46%
School Based Mental Health Professional	125	37%
Professional Counselor	101	30%
Psychiatrist	85	25%
Psychologist	64	19%
Nurse	57	17%
Other	29	9%
We do not complete Suicide Risk Assessments	19	6%
Teacher	7	2%

* Participants were asked to identify the staff/discipline responsible for administering a suicide risk assessment within their work setting.

Prior exposure with suicidal students/clients. In the survey, 288 (86%) of the participants reported having a student or client referred to them for being potentially suicidal; 45 (14%) did not receive a similar referral; and six participants did not respond. A majority of participants (N = 287/86%) reported having worked with a student or client initially found to be presenting with active suicidal thoughts and 48 (14%) reported not yet having worked with a suicidal student or client.

Analysis

Using descriptive data, participant responses were further examined to determine frequency and percentages of the total responses. In addition, inferential statistics were used to compute possible relationships among variables using SPSS. Data from the primary survey questions provided

guidance toward establishing possible relationships between practitioner preparedness, confidence and the methods used in determining suicide risk level.

Results

Self-perceived preparedness in suicide assessment. The majority of the respondents reported some type of exposure or training in suicide intervention and assessment. The participants had an opportunity to select multiple answers: graduate course work (N = 174/52%), attending professional development workshops (N = 233/69%), in-service trainings at work (N = 213/63%), and having not received any training (N = 21/6%). In addition, participants had multiple answer options that represented self-perceived preparedness levels: not feeling at all prepared (N = 15/4%), feeling somewhat prepared (N = 120/36%), feeling well prepared (N = 202/60%), and requesting that someone more prepared meet or assess a suicidal student/client (N = 32/9%).

Self-reported confidence in suicide assessment. The confidence levels reported by the participants reflect professional skill development to conduct suicide risk assessments. The responses included feeling very confident (N = 49/15%), confident (N = 212/63%), and not very confident (N = 63/19%). A similar survey item asked about confidence levels working with a suicidal student or client. The responses included feeling very confident (N = 42/12%), confident (N = 231/69%), and not very confident (N = 63/19%). An additional survey item sought information regarding participant feelings when assessing for suicidal thoughts. Results indicated feeling not prepared (N = 39/12%), anxious (N = 116/34%), calm (N = 145/43%), and confident (N = 185/55%).

Methods Used to Determine Suicide Risk Level During Assessment. Several survey items queried participant levels of training and methods used to assess a suicidal student or client. A survey item asked participants if they had received formal training to conduct suicide risk assessments. The respondents indicated Yes (N = 201/60%) or No (N = 133/40%). In addition, a survey question asked participants if they felt qualified to complete a suicide risk assessment: Yes (N = 241/73%) or No (N = 91/27%). A follow-up survey item asked participants how they determined if the student or client was at imminent risk, high to moderate risk or low risk. The participant responses indicated they would conduct an informal, non-structured interview (N = 213/64%) or use a formal, valid suicide assessment instrument (N = 90/27%); the remaining respondents indicated other (N = 31/9%).

Participants were asked what would limit their ability to provide a suicide intervention. Using a “check all that apply” format, responses included practitioners not receiving formal training to work with suicidal students or clients (N = 55/17%), the role of suicide interventions and response is the job of others (N = 19/6%), not feeling adequately prepared to provide a suicide intervention or assessment (N = 65/20%), workplace policy does not allow formal suicide assessments (N = 12/4%), and feeling prepared (N = 225/68%). The discipline most frequently reported to encounter and assess a youth presenting with suicidal thoughts or behaviors in this study was the school counselor (53%). This supported previous research by Poland (1989) who identified that “the task of suicide assessment was likely to fall on the school counselor” (p. 74).

To determine whether relationships existed among self-perceived levels of preparedness, levels of confidence, and methods used in youth suicide assessment, the researcher completed a chi-square statistical analysis to measure numerical and categorical differences. In order to compare differences among several groups, variables were collapsed to include confident/not confident and prepared/not prepared. The first group compared practitioners’ responses of reporting confident/not confident to prepared/not prepared in the process of providing an informal versus formal suicide risk assessment in youth. The analysis indicated that there were significant differences in preparedness levels

according to the method used. Seventy-three percent of those reporting use of formal assessments versus approximately 50% of those using informal assessments indicated confidence in their preparedness abilities ($X^2 = 12.79$; $df = 1$. Cramer's $V = .206$, $p = .000$). A further analysis indicated there were similar significant differences in practitioner confidence levels conducting informal, non-structured suicide risk assessments and formal assessments ($X^2 = 23.54$, $DF = 1$. Cramer's $V = .280$, $p = .000$). The results showed that 95.6% of the practitioners using formal suicide risk assessments reported higher levels of confidence versus 70.1% of the practitioners using informal, non-structured suicide risk assessments.

To identify existing gaps, participants were asked to rank by priority the trainings they needed to increase competency levels. The highest priority was (1) to receive a comprehensive training on warning signs, symptoms and suicidal behaviors, and (2) to attend several suicide assessment workshops.

Discussion

The purpose of this study was to determine if relationships existed among practitioners' self-perceived levels of preparedness, levels of confidence and methods used when assessing for suicide risk in youth. A survey was designed to query participants representing a broad sampling of disciplines related to their perceptions, experience and involvement in youth suicide risk assessment. The results of the survey were analyzed using chi-square to determine if relationships existed among variables, including participant perceptions of feeling prepared and confident, and if this contributed to the methods used to determine suicide risk in youth.

Results of the survey indicated that a majority of the participants (86%) reported having worked with suicidal youth; however, inconsistencies in participant responses emerged related to the constructs of feeling prepared and confident in the assessment of suicide. The results suggested preparedness and training in suicide assessment is linked to practitioner confidence levels when assessing for suicide risk among youth. This finding is supported by earlier research by Oordt and colleagues (2009), who reported that practitioner confidence in suicide assessment is primarily related to competency and training levels. The interrelationship between preparedness and confidence is often reflected in the practitioner's ability to accurately estimate risk level. This may potentially increase the likelihood of omitting critical information, which may affect the estimate of suicide risk (Douglas & Ogloff, 2003; Singer & Slovak, 2011). The results represent an important finding and highlight existing gaps in practitioner preparation. These gaps may reflect a struggle for most university and college graduate school degree programs to offer a more diversified curriculum (Allen, Burt, Bryan, Carter, Orsi, & Durkan, 2002) that includes courses specific to identifying, intervening in and assessing for suicide risk in youth (Schmitz et al., 2012).

The inconsistencies in participant responses related to feeling prepared and confident became apparent when participants rated themselves in working with a suicidal youth. Although over half of the respondents reported feeling well prepared and qualified in their ability, a much smaller percentage reported feeling confident in themselves (12%) and their skill preparation (15%) to assess for suicide. This finding may reflect a self-evaluation dilemma in wanting to self-report feeling prepared to work with a suicidal youth, but in actuality not feeling prepared or confident to provide a suicide intervention or complete an assessment.

As this study broadened its review of practitioner responses related to preparedness and confidence, findings indicated additional inconsistencies in participant responses related to self-

reported feelings of preparedness and confidence when conducting a suicide intervention or suicide assessment. Despite predominantly higher levels of reported confidence, skill development and preparedness to determine if a student or client was at imminent risk, high to moderate risk, or low risk, few participants (27%/N = 90) reported using a formal suicide assessment instrument. Most respondents (64%/N = 213) reported basing their clinical judgment solely on using an informal, non-structured interview. Although practitioners reported feeling prepared and having a sense of confidence assessing for suicide risk, basing clinical judgment on this method alone raises concerns. O'Connor and colleagues (2004) described that practitioner skill deficiencies in suicide assessment are commonly reflected in clinic notes such as "patient currently denies suicidal thoughts," based on the practitioner's impressionistic and subjective perceptions. Consistent with identifying training deficiencies in preparation, 52% (N = 174) of the participants reported receiving limited suicide intervention or assessment training in graduate coursework.

The participants in this study who reported using a formal suicide assessment, however, indicated feeling better prepared to conduct a suicide assessment versus practitioners using an informal, non-structured interview. In addition, practitioners using a formal assessment also had greater confidence levels versus practitioners using an informal, non-structured interview. When participants were asked to rank their own levels of needed training to provide a more thorough suicide intervention, participants identified skill deficiencies and training gaps in identifying warning signs and behaviors and assessing for suicide using a suicide risk assessment. These deficiencies pose great concern and competency challenges for practitioners charged with assessing for suicide risk. The combination of skill attributes, guided interview and diagnostic assessment synthesizes the information and allows practitioners to determine risk level and base clinical judgment on a variety of sources (Rudd, 2006; Sullivan & Bongar, 2009). The skill deficiencies reflected across all disciplines represented significant training gaps. This study suggests the need for increased commitment by colleges and universities to prepare future practitioners to more effectively address the growing national youth suicide crisis.

Implications

Despite suicide being identified as a national public health priority, no significant reduction in suicide has been recorded in the past 50 years (Kung et al., 2008; National Action Alliance for Suicide Prevention, 2014). "With the majority of youth suicide deaths being preventable," (O'Connor, Platt, & Gordon, 2011, p. 581), continued and more urgent calls for increasing practitioner preparedness, confidence and competency skills continue to be neglected.

Each of the disciplines represented in this study is faced with the challenge to address and estimate suicide risk. This study highlighted the critical role of school counselors as being identified by participants (53%) to be the most likely practitioner to respond and provide a suicide assessment. Representing a variety of disciplines and settings, participant responses suggest training deficiencies in the levels of preparedness, confidence and exposure to formal assessment measures. Previous research has made strong recommendations to increase the provisions and training in suicide assessment. Despite heeding previous calls and recommendations to prepare practitioners, more attention is needed to address previous and current identified training deficiencies among practitioners.

Transitioning research into practice includes revisiting several identified recommendations by Schmitz et al. (2012). This includes providing consistent core standards and competencies across disciplines by educational accrediting institutions. This may call for increased suicide-specific educational and training requirements beyond the baccalaureate degree level and include dissecting

vignettes, role-playing, exposing practitioners to several suicide assessment instruments and interpreting the results (Fenwick, Vassilas, Carter, & Haque, 2004). This would include increased emphasis on recognizing the signs and symptoms of depression, suicidal thoughts and behaviors and increasing an understanding of potential next steps once a suicide risk level has been determined. In addition, to sustain these skills, state licensing boards can require continuing education specific to suicide identification, assessment and management. Rudd and colleagues (2008) placed emphasis on practitioners receiving increased suicide assessment strategies through supervision. The prevailing need practitioners identified as a chief priority in this study was to become more familiar with the warning signs, symptoms and behaviors associated with suicide and suicide assessment. The findings included within this study offer future research opportunities to monitor suicide training, preparation and continuing educational requirements of colleges, universities and licensing boards that govern and are responsible for the production of competent practitioners.

Although attention has focused on practitioner training deficits in the identification and assessment of youth suicide, future studies also are warranted in the measurement and impact of existing suicide prevention training programs that may provide opportunities for practitioners to increase skill sets in these areas. Another area meriting future study might include a national sampling of school counselor preparation in the identification, assessment and exposure to assessment tools. In this study, school counselors were identified to be the most likely practitioner called upon to provide an initial suicide intervention or assessment given their access to a large number of youth. This serves as a valuable finding, highlighting the call for increased and expanded counselor education, training and preparation in suicide risk identification and assessment in graduate school.

Limitations

Providing a suicide intervention or assessment involves many complex issues, and addressing the many variables paralleling these efforts could not be entirely assessed in this study. This study was intended to explore current levels of practitioner preparedness, confidence and the methods used to assess youth suicide. There are some notable limitations regarding the current study; therefore, caution is warranted regarding the generalizability of the findings.

Although the Internet provided a greater opportunity for the researcher to create survey access to targeted participants and disciplines, this method did not provide a sample size completion rate. In addition, previous Internet survey research (W. Schmidt, 1997) reported that participants have access to multiple submissions, although ethical practice instructions and consent to complete this survey was provided. In order to access participants from multiple disciplines, the survey used in this study was available online as a self-report method of completion. In this process, self-report instruments, including surveys, inherently contain participant response bias. This may be reflected in responding to questions in a socially desirable or expected manner (Heppner, Wampold, & Kivlighan 2007). In addition, online surveys can be submitted containing omitted and blank responses (Sue & Ritter, 2012).

As previously noted, The Child and Adolescent Suicide Intervention Preparedness Survey used in this study was adapted from two previous research surveys (Debski et al., 2007; Stein-Erichsen, 2010). In this study design, survey questions were created and adapted to measure participant constructs in the assessment of youth suicide. The use of a psychometrically sound survey instrument would be an ideal application to implement and duplicate for future research.

Conclusion

The findings from this study identify significant interrelationships between the practitioner's self-perceived feelings of preparedness, confidence levels and methods used to assess for suicide risk among youth. The self-reported feelings of being prepared and confident seem to contradict the method used to obtain a suicide risk level. This finding suggests many practitioners are well intended, but lack the necessary skills to conduct a thorough suicide risk assessment. The majority of practitioners participating in this study reported conducting a suicide risk intervention using an informal, non-structured interview to formulate a suicide risk level versus using a formalized suicide risk assessment instrument. Prior experience and exposure to suicide risk assessment instruments and increased emphasis in suicide-specific training curriculum in graduate school can offer the opportunity for a practitioner to feel better prepared, feel more confident and utilize a more effective method to determine a youth's suicide risk level. Practitioner gaps in training are typically augmented by the practitioner seeking personal training and workshops to fill these gaps. Efforts must be made by colleges and universities to increase the competency skills in this area if we are to ever reduce the growing number of youth suicides. The findings from this study supported limited previous research sounding urgent calls to better prepare practitioners, especially school counselors, in the identification of youth presenting with suicidal thoughts or behaviors.

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The authors reported no conflict of interest or funding contributions for the development of this manuscript.

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Fostering Non-Cognitive Development of Underrepresented Students Through Rational Emotive Behavior Therapy: Recommendations for School Counselor Practice



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The non-cognitive factors (NCFs) endorsed by Sedlacek (2004) appear to align with the core values of rational emotive behavior therapy (REBT). This article explores theoretical and empirical evidence that suggests REBT fosters the development of NCFs. School counselors can promote non-cognitive development by embedding REBT throughout direct and indirect student services. REBT-based strategies and interventions can aid school counselors in their efforts to close the achievement gap and foster college and career readiness among students, especially those from historically underrepresented populations. Recommendations for school counseling practice are provided.

Keywords: non-cognitive factors, REBT, school counseling, college and career readiness, underrepresented populations

Non-cognitive factors (NCFs) include strategies, skills, attitudes and behaviors upon which individual success is often dependent (Farrington et al., 2012). While knowledge and ability are important, NCFs are mediating factors that can either assist or hinder individual achievement in educational and career settings. These factors often determine college and career readiness as well as lifelong success. For example, positive self-concept (Brown & Marenco, 1980), grit (Duckworth, Peterson, Matthews, & Kelly, 2007), growth mindset (Dweck, 2006) and social belonging (Walton & Cohen, 2011) are linked to positive outcomes for students and employees and typically lead to a better quality of life.

Sedlacek (2004) noted that NCFs are predictive of the success of students with non-traditional experiences. These students generally include students of historically underrepresented populations such as African Americans, American Indians, and Hispanic and Latino Americans. Students from these groups face higher rates of suspension (Losen, Hodson, Keith, Morrison, & Belway, 2015) and are more likely to have lower GPAs and poorer attendance (Burke, 2015) as compared to their Caucasian counterparts. In the United States, 7% of African American students and 12% of Hispanic students fail to complete high school (Kena et al., 2015). American Indian students are three times more likely to drop out of school than Caucasian students (Burke, 2015). These disparities widen the achievement gap and serve as barriers to postsecondary credentials for students from these groups.

In an effort to close the achievement gap, increase college and career readiness, and promote postsecondary success, many educational organizations and institutions have invested in initiatives that promote NCFs. The American School Counselor Association (ASCA; 2014) endorsed the value of non-cognitive development in a set of standards titled “Mindsets and Behaviors for Student Success.” Professional school counselors use these standards as guides to develop competencies that promote NCFs among students across academic, career and social-emotional domains. Squier, Nailor, and

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Carey (2015) recently developed a construct-based approach to developing, implementing and assessing school counseling programs based on several NCFs. Initiatives to develop non-cognitive skills continue to emerge in higher education as well (Sedlacek & Sheu, 2013). Through a series of conference calls, the College Access Affinity Group organized by the United States Department of Education (2015) also acknowledged the impact of NCFs on career and college readiness.

An assortment of interventions demonstrates the potential impact of NCFs on academic and career outcomes. Mentoring programs, service learning and social-emotional learning programs show positive effects, although the magnitude of these effects is relatively small (Gutman & Schoon, 2013). Gaps exist in the research when considering long-term outcomes and the transferability of NCFs across contexts (Farrington et al., 2012). Additionally, researchers often identify, describe and measure NCFs in different ways (Duckworth & Quinn, 2009; Dweck, 2006; Farrington et al., 2012; Goldberg, 2001; Tracey & Sedlacek, 1984; Walton & Cohen, 2011). Many of these factors are interrelated; some appear fixed, yet others are malleable (Gutman & Schoon, 2013). Concepts and terms that describe NCFs continue to emerge; however, those identified by Brown and Marenco (1980) and promoted by Sedlacek (2004) are of the most widely researched and linked to college and career success.

Ellis and Bernard (1986) outlined several core values of rational emotive behavior therapy (REBT), a cognitive behavioral framework developed by Ellis (1962). When practicing the principles of REBT, individuals subscribe to a philosophy of life and an accompanying set of sub-goals. This set of sub-goals, based on a philosophy of life rooted in responsible hedonism and preferential, logical thinking, serves as a guide for individuals striving to maintain happiness and life success (Ellis, 1962). These sub-goals parallel the NCFs endorsed by Brown and Marenco (1980), Sedlacek (2004), Duckworth and Quinn (2009), and Dweck (2006). Dryden (2011) described how the REBT philosophy is broadly applied to increase motivation, tolerance and self-control, as well as other NCFs.

This paper highlights the core values of REBT and explains how they align with the NCFs endorsed by Sedlacek (2004). An overview of the philosophical tenets and the theory of REBT is provided. Theoretical and empirical evidence is explored which suggests that REBT can directly and indirectly promote non-cognitive development. Recommendations for school counselors supporting underrepresented students are presented and directions for future research are discussed.

Rational Emotive Behavior Therapy

Developed by Albert Ellis in the mid-1950s, REBT encourages self-actualization and seeks to minimize distress, lengthen life and maximize happiness during all aspects of human development (Ellis, 1962). These core values are woven throughout the philosophical tenets of REBT and serve as guides for rational thought, healthy emotions and functional behavioral outcomes. Several sub-goals, as described by Ellis and Bernard (1986), help facilitate these values: (a) self-interest, (b) social interest, (c) self-direction, (d) tolerance, (e) flexibility, (f) acceptance of uncertainty, (g) commitment, (h) self-acceptance, (i) risk-taking, (j) realistic expectations, (k) high frustration tolerance, and (l) self-responsibility.

Ellis (1962) proposed that humans are genetically predisposed to think in a rigid, irrational manner. Irrational beliefs (IBs) are the root of emotional disturbances according to REBT. While demanding is the core or primary IB, three secondary IBs exist: awfulizing, low frustration tolerance (LFT), and global evaluation (David, 2014; David, Lynn, & Ellis, 2010; Dryden, 2011).

REBT hypothesizes that extreme emotions such as anxiety, anger and depression stem from primary and secondary IBs. These unhealthy negative emotions (UNEs) lead to dysfunctional behaviors (Dryden, 2014). In turn, individuals often behave in ways that prohibit the achievement of desired goals and success.

In accordance with its values and goals, REBT promotes rational beliefs (RBs), or preferential thoughts, which are logical and realistic in nature (David, 2014). RBs are non-awfulizing, demonstrate a tolerance for frustration, and do not indicate global evaluations of self, others or life. Healthy negative emotions such as bother, concern or annoyance stem from these RBs. These emotions lead to functional behaviors and outcomes related to success.

The philosophy and values of REBT encourage lifelong happiness and responsible hedonism. It is at this place where the sub-goals of REBT and the NCFs promoted by Sedlacek (2004) appear to converge. Table 1 provides an overview of the conceptual relationships between these NCFs, the sub-goals of REBT and the IBs (evaluative schema) that impede success. Below, theoretical nuances and empirical evidence supporting the utility of REBT in promoting non-cognitive development are presented. It is important that school counselors are aware of the impact of REBT on NCFs as they strive to ensure that all students, especially those from underrepresented groups, are college and career ready.

Table 1

Conceptual Relationships Between NCFs and REBT Goals and Evaluative Schema

Non-Cognitive Factor	REBT Sub-Goals	Evaluative Schema
Positive Self-Concept	Self-Acceptance	Demands Global Evaluation
Realistic Self-Appraisal	Realistic Expectation	Demands Global Evaluation
Leadership Experience	Self-Interest, Social Interest, Self-Direction, Commitment	Low Frustration Tolerance Global Evaluation
Preference for Long-Term Goals	High Frustration Tolerance, Self-Responsibility	Demands Low Frustration Tolerance Global Evaluation
Successfully Handling the System	Tolerance, High Frustration Tolerance	Demands Low Frustration Tolerance
Availability of Strong Support Person	Flexibility, Acceptance of Uncertainty	Demands Awfulizing Global Evaluation
Community Involvement	Commitment	Low Frustration Tolerance
Knowledge in an Acquired Field	Risk-Taking, Self-Interest, Self-Direction	Low Frustration Tolerance Awfulizing

REBT and Non-Cognitive Factors

Many factors are critical to K–12 student achievement and postsecondary success. This section presents the NCFs Sedlacek (2004) identified as most valuable in predicting educational outcomes, especially for underrepresented students. These factors include: (a) positive self-concept, (b) realistic self-appraisal, (c) leadership experience, (d) preference for long-term goals, (e) successfully handling the system, (f) availability of strong support person, (g) community involvement, and (h) knowledge in an acquired field. Theoretical and empirical evidence demonstrates how REBT directly and indirectly promotes these factors (see Table 2). Given the role school counselors play in fostering college and career readiness for all students, this evidence may serve as a catalyst for delivering services rooted in REBT.

Table 2

Empirical Support for REBT as an Intervention that Promotes NCFs

Non-Cognitive Factor	Researcher(s)	Outcome of Study
Positive Self-Concept	Donegan & Rust (1998) Sapp et al. (1995) Sava et al. (2011)	Increases in SC Increases in SC and A Relationship between SE & SD
Realistic Self-Appraisal	Warren (2010) Warren & Dowden (2012) Davies (2008)	Relationship between EB & IB Relationship between EB & IB Causal link between USA & IB
Leadership Experience	Woods (1987) Filippello et al. (2014)	Reduction in discomfort & IB/ increases in assertiveness Relationship between LFT & distress when assertive
Preference for Long-Term Goals	Harrington (2005a, b) Morley (2014)	LFT predicts procrastination & self-control HFT associated with optimism, preferences, acceptance
Handling the System	Sapp (1996)	School success
Availability of Strong Support	Wood (2004) Chamberlain & Haaga (2001)	Increases in autonomy & control Relationship between USA & anxiety
Community Involvement	Ayodele (2011) Nicastro et al. (1999)	Increased IP behaviors IB related to lack of community
Knowledge in an Acquired Field	Harrington (2005b) Balkis (2013)	LFT predicts procrastination RB mediated procrastination & achievement

Note: A=Achievement, EB=Efficacy Beliefs, HFT=High Frustration Tolerance, IB=Irrational Beliefs, IP=Interpersonal, LFT=Low Frustration Tolerance, RB=Rational Beliefs, SC=Self-Concept, SD=Self-Downing, SE=Self-Esteem, USA=Unconditional Self-Acceptance.

Positive Self-Concept

Self-concept includes self-confidence and self-esteem (Sedlacek, 2004). Independence and determination also are aspects of self-concept. Positive self-concept is a determinant of success, especially among students with non-traditional experiences (Sedlacek & Sheu, 2013).

REBT promotes positive self-concept through unconditional self-acceptance (USA). Ellis (1962) emphasized self-worth and the importance of accepting the self regardless of faults or flaws. Self-worth is not contingent upon success or failure, as is often the case with self-esteem. London (1997) suggested self-esteem is problematic since the self is conditionally defined by attributes or behaviors. Attempting to constantly hold one's self in high esteem leads to perpetual damnation and anxiety. However, Kim and Sedlacek (1996) asserted that a relationship exists between the self-concept of students of color and their level of adjustment. This presents a conundrum for students experiencing difficulty adjusting. By practicing USA, students can develop an understanding that they have worth independent of external stimuli or variables. This shift in personal philosophy leads to a stable self-concept and likelihood for greater success (Dryden, 2014).

Studies exploring the direct impact of REBT are vast and stretch over the life span. For example, Donegan and Rust (1998) noted that self-concept among second graders improved as a result of an intervention based on REBT. Additionally, Sapp (1996) and Sapp, Farrell, and Durhand (1995) found that self-concept was a mediating factor between REBT and the success of African American students. Findings from other studies also have suggested that self-concept and self-esteem are associated with IBs (Burnett, 1994; Heppner, Reeder, & Larson, 1983). Sava, Maricutoiu, Rusu, Macsinga, and Virga (2011) described a negative relationship between explicit self-esteem and self-downing IBs of undergraduate students. REBT promotes self-worth and thwarts IBs associated with low self-esteem.

Sedlacek (2004) suggested a strong sense of self is a prerequisite for student success. REBT emphasizes a healthy sense of self by disputing self-downing IBs and promoting preferential, rational thinking. By addressing IBs that impact self-concept, REBT can promote student success.

Realistic Self-Appraisal

Students who accurately evaluate personal weaknesses and strengths demonstrate realistic self-appraisal (Sedlacek, 2004). Self-appraisal is often based on one's perceived ability to complete tasks, also known as self-efficacy beliefs (Bandura, 1986). Sedlacek and Sheu (2008) suggested that accurate assessment of strengths lead students, especially those from underrepresented groups, toward academic success.

REBT endorses the appraisal of strengths and weaknesses, but it discourages evaluating the self as a whole based on these attributes. As such, realistic expectations serve to ground individuals and promote happiness and success. When realistic expectations are maintained, IBs about the self are minimized.

Warren and Dowden (2012) explored the relationships between IBs, efficacy beliefs and UNEs. IBs were negatively related to efficacy beliefs as well as depression, stress and anxiety (Warren, 2010; Warren & Dowden, 2012). More recently, Warren and Hale (in press) elaborated on the implications that efficacy beliefs and the sources from which they are conceived (e.g., past performance, verbal encouragement) have on performance. Efficacy beliefs, whether accurate or not, can lead to IBs when expected outcomes fail to materialize (Warren & Hale, in press). These cognitive processes produce a host of emotional and behavioral consequences.

Several studies demonstrated how REBT directly promoted a realistic, functional philosophy of self and life. For example, Chamberlain and Haaga (2001) found that non-clinical university students who scored high on a measure of USA could more objectively evaluate their performance on tasks. Alternatively, McCown, Blake, & Keiser (2012) indicated that college students who procrastinated engaged more readily in global evaluations of self, others and life. Negative mood, stemming from irrational thought processes, was associated with procrastination. Similarly, a study conducted by Davies (2006) of a non-clinical sample of adults yielded findings that suggested IBs and USA are negatively related. Davies (2008) later found a causal link between these concepts. Participants exposed to IBs scored lower on a measure of USA, yet scored higher when exposed to RBs. These studies support the premise that promoting a preferential philosophy of life can enhance realistic self-appraisal. Through realistic self-appraisal, students are positioned for success and equipped to respond effectively to adversity and failure.

Leadership Experience

Students can develop abilities to lead through traditional and non-traditional experiences (Sedlacek, 2004). These experiences are often directly related to cultural and community affiliation. A degree of assertiveness is required to accept leadership roles and achieve related tasks. Assertiveness is a predictor of success (Sedlacek, 2003), while passivity and aggressiveness often hinder success.

REBT encourages self-direction by promoting rational thoughts and minimizing the need for support or approval from others. As such, the importance of assertiveness in leadership endeavors is emphasized in REBT. Rational thoughts lead to assertiveness; IBs tend to result in either passivity or aggression. When assertive, individuals are poised to promote self-interests and social interests in a functional and effective manner. Additionally, individuals often are happier when committed to a cause or invested in a social interest. By responding to challenges or adversity in rational ways, individuals will position themselves as leaders while developing cumulative skill sets adaptable to a variety of settings.

REBT is employed in a variety of settings to directly and indirectly promote leadership skills including assertiveness. In a model of leadership presented by Grieger and Fralick (2007), REBT principles were embedded to enhance training procedures. Murthy (2014) and Nottingham (2013) also described how REBT is used to develop effective leadership practices. Coaches and consultants frequently employ concepts rooted in REBT to establish effective leadership attributes among clients. For example, Woods (1987) found that basic REBT strategies and techniques taught during a series of workshops led to reductions in discomfort and increased assertiveness among participants. REBT also can address perfectionist tendencies, which are often seen as barriers to effective leadership (Ellam-Dyson & Palmer, 2010).

When effective leaders are emotional, they often garner the support of others through the development of interpersonal relationships (George, 2000). However, Filippello, Harrington, Buzzai, Sorrenti, and Costa (2014) found that emotionally intolerant individuals often become distressed when practicing assertiveness. When the principles of REBT are practiced, leaders are viewed as flexible, realistic and authentic in their aim and scope (Fusco, Palmer, & O'Riordan, 2011). Students, especially those from underrepresented groups, can benefit from learning strategies that enhance their ability to serve effectively in leadership roles.

Preference for Long-Term Goals

The establishment of long-range goals often precedes achievement and attainment of those

goals. A preference for long-term goals requires that students have the ability to plan and delay gratification. Sedlacek (2003) and Duckworth et al. (2007) suggested that perseverance and determination when striving toward long-range goals are prerequisites of academic achievement.

REBT encourages responsible hedonism, or enjoyment of life. This concept implies a delay of gratification while individuals behave in ways that lead to the attainment of goals. Self-responsibility and high frustration tolerance (HFT) are required to overcome obstacles that impede progress toward goals. Rather than giving up or blaming the self, others or life for these challenges, REBT recommends individuals take responsibility for their thoughts, feelings and behaviors (Dryden, 2014). HFT is promoted by REBT and lies in opposition to LFT, or the inability to persevere during difficult or challenging situations. Preferential thoughts related to challenges or discomforts are realistic and lead toward healthy emotions and functional behaviors. When ownership of thoughts and feelings are accepted and frustrations are tolerated, individuals are better positioned to work toward distal goals that lead to success.

Rodman, Daughters, and Lejuez (2009) described the positive relationships between HFT and distress tolerance (i.e., persistence) and the pursuit of goals despite potential discomfort. HFT is associated with optimism, preferences, non-awfulizing and acceptance—factors that support goal attainment and enhance the quality of life (Morley, 2014). Alternatively, Harrington (2005a, 2005b) found that frustration intolerance was a predictor of procrastination behaviors, including issues of self-control, among students. When working toward goals, especially ones that create discomfort, self-responsibility and HFT help move individuals forward and toward success. Responsible hedonism, a core value of REBT, appears to directly promote a preference for long-term goals rather than simple, rudimentary accomplishments. School counselors can assist students in developing and working toward distal goals such as completion of postsecondary credentials.

Successfully Handling the System

Students from underrepresented groups are not afforded the same benefits as those from privileged backgrounds. The educational system maintains barriers (e.g., racism) that impede the efforts of students from underrepresented groups. The manner in which individuals handle challenging circumstances within the system offers insight into their ability and potential for success (Sedlacek, 2004). Persistence and perseverance are crucial qualities for students who attempt to navigate or handle the system.

REBT can provide direct support to students navigating the educational system. Rather than placing demands on the system, which can lead to UNEs and unproductive responses, REBT encourages acceptance of system inequities through ULA. Additionally, HFT is fundamental to ULA when attempting to navigate the system. REBT promotes tolerance and an understanding that individuals experience difficult situations as a function of life. Tolerance is a key to self-advocacy efforts and helps students move forward productively without condemning others or life.

Responding to or interacting with the system can leave students, especially those from underrepresented groups, emotionally charged or drained and prone to respond in irrational ways. Harrington (2013) described how IBs play a central role for individuals who believe in a just or utopian world. When beliefs are rigid, individuals have difficulty adapting to adverse situations and may retaliate, thus prohibiting success (Veale, 2002). Dryden and Hurton (2013), however, acknowledged that individuals may not always act on their beliefs. When navigating the system, individuals who maintain rigid beliefs tend to be aware of their action tendencies yet refrain from responding in detrimental ways.

The tenets and practices of REBT provide a platform for restructuring students' cognitions related to systemic prejudice, racism and stereotyping. Gregas (2006) suggested that REBT-based skills are useful for students who face discrimination. Earlier, Sapp (1996) found that African American males who learned the principles of REBT were more successful in school. REBT guided students from beliefs associated with chance or luck (i.e., external locus of control; Rotter, 1966) toward beliefs of personal control over outcomes, which promotes empowerment (i.e., internal locus of control). Regardless of where an individual places responsibility (i.e., locus of responsibility; Jones, 1997), USA, UOA and ULA offer guidance when attempting to hold the self, others, or society accountable. REBT provides psychological resources for handling the system and demonstrating personal influence over outcomes. Students from underrepresented groups who acquire these tools and strategies will respond more effectively when faced with systemic barriers. Evidence also suggested that REBT can propel individuals to reap the benefits of other NCFs such as the availability of a strong support person.

Availability of Strong Support Person

Success is often contingent upon a support network and the use of personal resources. Underrepresented students with a history of supportive relationships perform better in college (Sedlacek, 2004). Individuals should engage with support persons in emotionally healthy ways and ensure that the relationship is mutually understood.

USA and UOA are critical for students seeking support or mentorship in achieving their goals. USA allows individuals to confidently seek support without feeling worthless. With UOA, individuals are accepting of others regardless of faults or failings. Acceptance of uncertainty propels students to take the necessary steps to reach out to others and attempt to form support networks.

Individuals who are self-directed readily seek healthy relationships and support networks. They engage in these relationships to complement their efforts rather than developing a dependency for the support. Reducing anxiety and achieving goals through the incorporation of REBT can lead individuals toward independence rather than maintaining unhealthy, dependent relationships (Wood, 2004). Chamberlain and Haaga (2001) found that USA is negatively related to anxiety, which can stifle autonomy and the confidence to reach out to others for support. Similarly, a study conducted by Davies (2006) revealed that IBs were negatively related to openness, a Big 5 personality dimension promoted by McCrae and Costa (1987). Students considered to possess openness typically have a wide range of interests, creativity and insight, which have implications for establishing a diverse system of support. As such, their relationships are likely to extend well beyond and across cultural boundaries and communities.

Maintaining a strong support system can benefit students navigating difficult tasks or tackling daily life obligations. REBT appears to directly provide the tools and resources necessary for establishing, maintaining and appropriately utilizing support persons. By fostering self-direction and unconditional acceptance, REBT promotes the development of strong systems of support as described by Sedlacek (2004). The availability of a strong support person is critical for students from underrepresented groups; community involvement also plays a key role in the educational success of these students.

Community Involvement

Community involvement encompasses a student's level of activity or interaction in groups within the larger society (Sedlacek, 2004). Students engaged in their community, or a subset of their community, are more successful than those who are disconnected or isolated. Through involvement

in the community, students from underrepresented groups can hone their self-concept, leadership skills and ability to navigate the system.

Ellis and Bernard (1986) suggested that individuals who are actively engaged in something other than themselves are happier. REBT directly promotes community involvement through UOA and ULA. When students are accepting of others and life and remain assertive, they become self-directed and often take interests in the welfare of others and their community. As noted by Sedlacek (2004), a commitment to community initiatives invokes the development and attainment of other goals and skills, which all foster happiness and success.

Warren and Dowden (2012) noted the negative relationships between IBs and depression, anxiety and stress. These psychological disturbances can often impede or debilitate individuals and prevent meaningful interactions within the community. For example, university students were found to moderate their anxiety levels by removing themselves from an activity common in communities of learning (Nicastro, Luskin, Raps, & Benisovich, 1999). Imperative or irrational thinking was related to the speed of the departure, thus demonstrating the influence of thought processes on community engagement.

REBT is effective in promoting social skills, which leads students to engage with society and build a sense of community. For example, Safdari and Hadadi (2013) utilized REBT-based group counseling to reduce symptoms among individuals with mild to moderate depression. The group experience led to a reduction in ruminations about consequences, which often paralyze and prevent a satisfying life. In a study of students enrolled in secondary schools in Nigeria, Ayodele (2011) found that two interventions based on REBT were effective in promoting interpersonal behavior. Students can develop social-emotional competence, a commitment to the community, and other interpersonal skills as a result of participating in REBT interventions. REBT also can position students to more readily acquire knowledge in a field.

Knowledge Acquired in a Field

Knowledge obtained from traditional and non-traditional experiences affords students the opportunity to gain valuable insights into their “place” or “degree of fit” within a particular industry or field (Sedlacek, 2004). While operating in a field, individuals should take full advantage of the opportunities to absorb knowledge and obtain as many skills as possible. These experiences are invaluable for underrepresented students attempting to navigate their chosen field of study or work.

REBT indirectly supports the acquisition of knowledge in a field or career path. For example, individuals must maintain self-direction in order to have varied experiences in a desired field. Drive and determination are required as well as self-interest. REBT suggests that happiness stems from one’s willingness to place personal interests before others (Ellis & Bernard, 1986). Although any experience may lead to benefits, knowledge obtained from a field of interest is gratifying and rewarding. Individuals also must take risks when seeking knowledge. Students who maintain positive emotional health will take appropriate risks when attempting to acquire field experience.

Using the REBT framework, Dryden (2000) described the manner in which procrastination related to work experience, interests, opportunities and advancement hinders self-development and knowledge acquired in a field. Procrastination is related to factors that impact the acquisition of knowledge, such as motivation (Klassen & Kuzucu, 2009) and stress (Stead, Shanahan, & Neufeld, 2010). Harrington (2005b) found that discomfort intolerance, a variation of LFT, was a predictor of procrastination. Students who experience discomfort intolerance will delay experiences that would

otherwise lead to knowledge acquisition.

Researchers have established that REBT can help individuals overcome barriers to taking risks and obtaining knowledge in a field. For example, during a demonstration session, Dryden (2012) explained how REBT can assist individuals in overcoming procrastination. More recently, Balkis (2013) found that RBs about studying were a mediating factor in the degree of academic procrastination and level of achievement among college students. It is important that school counselors consider the vast ways in which REBT promotes NCFs and prepares students for college and the world of work.

Recommendations for Developing NCFs Through School Counseling

The values of REBT align with many NCFs, including those endorsed by Sedlacek (2004). A variety of research studies demonstrate the impact REBT can have on NCFs. Through cognitive, emotional and behavioral support, REBT promotes NCFs in direct and indirect ways. When these factors or skills are developed and strengthened, students in elementary, secondary and postsecondary settings are more likely to experience positive educational outcomes.

Students from underrepresented groups are especially susceptible to barriers that impede their educational efforts and goal attainment. As such, disparities in graduation rates, disciplinary referrals and teacher expectations remain prevalent (Holcomb-McCoy, 2007). In order to close the achievement gap, it is imperative for school leaders, specifically school counselors, to establish evidence-based strategies that support non-cognitive development and college and career readiness.

Through comprehensive programs, school counselors can deliver a variety of direct and indirect student services that enhance educational experiences and prepare students for postsecondary success. School counselors can use REBT-based student support services to help students, parents and teachers develop strategies that foster NCFs and lead to college and career readiness. It is important that these services are innovative, extend beyond modifications to the classroom and school environments, and offer all students, especially those from underrepresented groups, skills for lifelong empowerment.

Direct Student Services

School counselors deliver direct student services through the core curriculum, student planning and responsive services (ASCA, 2012). Direct interactions that target academic achievement, personal/social growth and career development occur between school counselors and students during the delivery of these services. Professional school counselors can promote non-cognitive development by incorporating the tenets of REBT into many aspects of direct student services.

Core curriculum. The core curriculum is delivered through instruction and group activities that advance the mission and goals of the school counseling program. School counselors advance knowledge, attitudes and skills that align with standards and competencies based on *Mindsets and Behaviors for Student Success* (ASCA, 2014). Because these standards are based on non-cognitive research (Farrington et al., 2012), REBT appears to be a viable framework for delivering the core curriculum.

Rational Emotive Education (REE; Knaus, 1974) can promote NCFs while serving as a central component of the school counseling core curriculum. This social-emotional curriculum is based on the philosophy of REBT and aims to foster rational thought, emotional awareness and

functional behaviors among children and adolescents. REE lessons can empower students from underrepresented groups who are often subjected to beliefs and emotions related to their perceived inability to succeed (Holcomb-McCoy, 2007).

More recently, Vernon (2006a, 2006b) developed an REBT-based curriculum geared to promote emotional education across K–12 settings. This curriculum fosters non-cognitive development by helping students establish a positive self-concept, engage in realistic self-evaluation, and navigate difficult and challenging situations. REBT has failed to take root in educational settings and is often overlooked when considering evidence-based social-emotional curriculums. However, schools in Australia are beginning to demonstrate the effects of rational emotive behavior education (REBE) on the social-emotional development of children and adolescents (personal communication, G. Bortolozzo, April 15, 2015).

School counselors who utilize these or similar REBT-based curriculums have the opportunity to foster the non-cognitive development of all students. Opportunities for students to apply, practice and test the strategies they learn must accompany these curriculums. For example, school counselors can coordinate and encourage experiences that allow students to become involved in the community (e.g., food drive), acquire knowledge in a field (e.g., job shadowing), and gain leadership experience (e.g., class representative). These experiences, coupled with REBT-based instruction, are especially beneficial for students from underrepresented groups. Students in K–12 settings who develop knowledge, attitudes and skills based on the REBT framework and have guided opportunities for practice will position themselves for postsecondary success.

Individual student planning and advisement. This direct service affords school counselors the opportunity to help students develop, monitor and manage long-range goals and plans (ASCA, 2012). Student advisement is especially important for students from underrepresented groups who may require additional guidance and support (Holcomb-McCoy, 2007). Through planning and advising, school counselors assess and evaluate students' attitudes, knowledge and skills related to academic, personal and social, and career development.

Using an REBT framework, school counselors can assist students in uncovering IBs that may impede their goals of attaining a postsecondary credential (e.g., certification, degree). In some cases, students may not aspire to pursue postsecondary education due to IBs associated with unrealistic self-appraisal. School counselors can teach students REBT-based strategies that help establish healthy beliefs and emotions related to academic, personal and career planning. In turn, students are more likely to seek and acquire knowledge in a field or strengthen their support network, both keys to postsecondary success. By realizing the influence of thought, students from underrepresented groups become empowered as active participants of their educational pursuits and are positioned to “reach higher.”

Responsive services. School counselors can promote non-cognitive development through counseling and crisis response. Individual and small group counseling are often short-term and designed to address concerns that impact student success (ASCA, 2012). School counselors also assist students in overcoming crisis situations. It is important that interventions utilized during responsive services are evidence-based and promote academic achievement, personal and social growth, and career development.

REBT offers school counselors a framework for providing responsive services that are evidence-based, targeted, brief and solution-focused. School counselors can utilize cognitive, emotional and

behavioral strategies to help students overcome irrational thoughts and extreme emotions that are often detrimental to student success. Non-cognitive development is promoted as students learn strategies to effectively navigate classroom, school and community experiences.

Most school counselors lack training in REBT and therefore do not fully understand its theoretical principles. However, resources are available that school counselors can use to promote the principles and philosophy of REBT during the delivery of responsive services. For example, Vernon (2002) developed a resource that offers a variety of individual activities based on the principles of REBT. This set of activities includes strategies and techniques that address issues related to self-acceptance, problem-solving, underachievement, relationships and transitions. More recently, Warren (2011) provided a variety of rational rhymes school counselors can use to promote the tenets of REBT. School counselors can help students memorize and rehearse these short songs in an effort to develop more preferential philosophies of life. These resources help school counselors equip students with tools and strategies that promote rational thought, foster NCFs and lead to empowerment. In addition to direct student services, school counselors also can provide a variety of REBT-based indirect student services. These services are complementary and aim to support non-cognitive growth in all aspects of student life.

Indirect Student Services

Indirect student services include referrals, consultation and collaboration. While often viewed as ancillary in nature, these services are an integral component of school counseling programs. School counselors should consider integrating the philosophy and principles of REBT throughout the delivery of these services. For systemic change to occur, school counselors must remain vigilant and not waiver in their efforts to close the achievement gap and promote student success. Indirect student services can advance this mission by promoting the development of NCFs.

Referrals. School counselors refer students and families to a variety of community based services. Prior to making a referral, it is important that school counselors have a clear understanding of the concerns and presenting issues. As such, school counselors who operate from an REBT perspective assess students for non-cognitive strengths and deficiencies that impact academic, personal and social, and career development. Using this framework, school counselors can more readily identify the root or underlying issues of concern and make appropriate referrals.

School counselors should consider making referrals to community agencies and organizations that understand the framework and philosophical principles used to determine the need for referral. For example, school counselors can refer students and families to mental health agencies that specialize in cognitive behavioral therapies since these frameworks promote NCFs. Local organizations that foster community involvement and establish supportive relationships with their clients also can serve as referral options. Community agencies and organizations that understand the mission of the school counseling program and the benefits of non-cognitive development are key partners in promoting the success of students from underrepresented groups.

Consultation. Consultation is a triadic interaction in which school counselors support teachers' efforts to promote student success (Warren & Baker, 2013). School counselors also provide consultation to parents, administrators and other educational stakeholders. Consultation is a highly effective means of evoking systemic change and positively impacting the educational experiences of students. Rather than relying on eclectic approaches, school counselors are strongly encouraged to invest in the delivery of evidence-based consultation that promotes NCFs.

Rational Emotive-Social Behavioral (RE-SB) consultation, developed for K–12 teachers, fosters student-teacher relationships and quality instruction by promoting flexibility, acceptance and realistic expectations (Warren, 2013; Warren & Gerler, 2013). School counselors use this model of consultation to address IBs and UNEs commonly associated with teaching. RE-SB consultation also can address the biases and stereotypes that lead teachers to hold low expectations of students from underrepresented groups (Holcomb-McCoy, 2007).

Through RE-SB consultation, school counselors can promote the NCFs of teachers that directly impact the non-cognitive development of students. For example, students vicariously learn strategies that promote non-cognitive development from teachers who have positive self-concepts, demonstrate preferences for long-term goals and maintain strong support systems. Additionally, students are positioned to engage in realistic self-appraisal when teachers maintain high expectations.

School counselors also can utilize this model of consultation when working with parents. RE-SB consultation can promote NCFs that enhance the ways caregivers interact with and support their children. RE-SB consultation can assist parents in overcoming psychosocial barriers that hinder their child's growth and development. For example, consultation can target a parent's thoughts, emotions and behaviors that influence their child's decision regarding postsecondary education.

School counselors can deliver RE-SB consultation in large group, small group and individual sessions. Ideally, school counselors utilize large group consultation in an effort to advance the principles of REBT throughout the systems of the school. For example, school counselors can encourage teachers and parents to develop a common language that promotes rational thoughts and promotes NCFs. Establishing a common set of REBT-based classroom rules and parental guidelines can ensure that students are immersed in environments conducive to promoting NCFs. Small group and individual RE-SB consultation is typically implemented to address specific concerns expressed by individual teachers or parents. Students from underrepresented groups can benefit greatly from interacting with parents and teachers who model NCFs.

Collaboration. School counselors can collaborate with parents, as well as educators and community members, in many ways. These collaborative efforts are aimed at establishing equity and access for all students (ASCA, 2012). As a result of the relationships established through collaboration, members of the school community (e.g., parents) may reach out to the school counselor for consultation and other services more readily.

Through collaborative efforts such as parent trainings, school counselors can inform parents about the value of non-cognitive development and its role in determining postsecondary success. Efforts to engage the school community in initiatives that directly support student success can strengthen the relationships between the school counselor and parents. Collaboration establishes the school counselor as a leader, student advocate and partner in advancing NCFs and college and career readiness.

School counselors also can partner with local universities to promote a college-going culture and set high expectations for postsecondary success for all students. For example, university and school partnerships can establish mentoring programs that couple K–12 students with local college students from similar underrepresented groups. These relationships would reciprocate non-cognitive development for both the mentor and mentee. This experience can empower and create opportunities for K–12 students from underrepresented groups.

It is equally important that university and college initiatives, with involvement from offices such as those responsible for enrollment, retention and diversity, engage school counselors in conversations that explore opportunities to streamline students' experiences from high school to postsecondary education. These partnerships can lead to collaborative efforts to develop and provide REBT-based transition programs that promote non-cognitive development. These programs can offer students, especially those from underrepresented groups, additional support as they navigate the nuances of postsecondary education. Universities are advised to build on the efforts of professional school counselors and promote non-cognitive development through evidence-based practices rooted in REBT.

Conclusion

The principles and tenets of REBT align and overlap with many NCFs, especially those promoted by Sedlacek (2004). The proposed recommendations for school counselor practice appear to support the aims of ASCA (2012) and the ASCA (2014) *Mindsets and Behaviors for Student Success* standards and competencies. It is critical that researchers and educational leaders continue to explore ways to embed the principles of REBT throughout the educational experiences of all students in an effort to close the achievement gap, foster college and career readiness, and promote postsecondary success.

School counselors must evaluate the direct and indirect student services they provide. A variety of methods are available to help determine the outcomes of REBT-based services. Both formal and informal methods of data collection are useful in determining the impact of services such as core curriculum, small group counseling, consultation and collaboration. School counselors can attempt to directly measure non-cognitive development, including changes in students' patterns of thoughts, emotions and behaviors. However, it is critical for school counselors to track changes in achievement-related data including attendance, discipline referrals and homework completion. From a distal perspective, understanding the influence these services have on high school graduation rates and persistence in postsecondary education, especially for students from underrepresented groups, is imperative.

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