SECONDARY TRAUMA IN MENTAL HEALTHCARE PROVIDERS

IN ALASKA

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A

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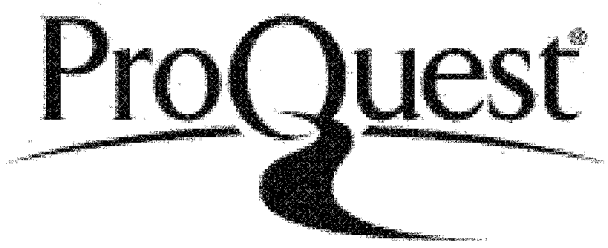

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Abstract

Secondary trauma (ST) is vicarious traumatization caused by empathetic engagement with another's trauma, which may lead to burnout/turnover for mental healthcare providers (MHPs). ST and associated risk or protective factors have not been studied in Alaska. This research explored the prevalence and predictors of ST.

The study population was 450 licensed MHPs and 14 Behavioral Health Aides (BHAs) who were randomly selected to complete the Secondary Traumatic Stress Scale (STSS) and a questionnaire created for this research, which inquired into aspects of their work. Bivariate analyses, mediator analyses, and multiple regressions tested which variables were associated with levels of overall ST and three sub-types of ST labeled Intrusion, Avoidance, and Arousal. 4 of the MHPs who responded to the survey also participated in a focus group to explore the survey results in greater detail.

In total, 232 (50% response rate) licensed professionals and BHAs (47.08% urban and 48.15% rural) responded to the online survey. The Total STSS score across all participants indicated a "mild" level of ST among the MHPs. Approximately 20% of the sample met criteria for posttraumatic stress disorder as a result of their work; 47.6% experienced intrusion, 32.9% experienced arousal, and 29.9% experienced avoidance symptoms.

As hypothesized, MHPs who reported working in rural locations, treating long-term and casual acquaintances, being less satisfied with their social support and self-care levels, and feeling more embarrassed to discuss ST reported higher levels of ST. Spending a higher percentage of one's workweek providing direct client services,

however, was associated with less ST. Other hypothesized predictors of ST, including being younger, time spent debriefing, having a trusted supervisor, hours spent in self-care, treating a family member or friend, having a similar trauma history as a client, and gender were not associated with ST.

Focus group participants shared that all clinicians may be susceptible to ST, that MHPs cope with ST by emotionally withdrawing, and that organizations can help reduce ST by providing support that reduces overall job-related stress. The information obtained can assist training programs, organizations, and providers in addressing ST, which may help reduce burnout/turnover rate.

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Acknowledgments

This dissertation is dedicated to mental healthcare providers, who give of themselves so that the lives of others may be improved.

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Chapter 1 Introduction and Literature Review

Secondary Trauma

When we envision traumatic stress, we generally tend to think of those at the direct receiving end of the trauma such as an incest survivor or combat veteran. While research on the treatment of trauma continues to flourish, those who conduct this treatment tend to go largely ignored. Psychotherapists bear witness to the atrocities suffered by their clients and in doing so, they themselves may begin to suffer the physical and psychological distress caused by those atrocities. Secondary trauma (ST) is a vicarious traumatization or stress reaction caused by empathetic engagement with another person's traumatic event (McCann & Pearlman, 1990). Psychotherapists and other types of mental healthcare providers (MHPs) can experience various symptoms as a result of working with persons who have experienced a singular traumatic event or a series of events. Geller, Madsen, and Ohrenstein (2004) highlighted that, "Like primary trauma reactions, secondary trauma may disturb the worker's ability to think clearly, to modulate emotions, to feel effective, or maintain hope" (p. 416). Lindy (1988) described therapists working with Vietnam veterans as experiencing symptoms of posttraumatic stress disorder (PTSD). Pearlman and Saakvitne (1995) relayed that many trauma experts and researchers discuss clinicians as experiencing feelings of rage, grief, anxiety, shame, and avoidance after working with clients who have experienced trauma.

McCann and Pearlman (1990) argued that ST can occur for a MHP through two primary modalities: countertransference and disruption of cognitive schemas. While the term *countertransference* is generally associated with the psychoanalytic notion

concerning feelings elicited by a client due to the therapist's unconscious conflicts, the term can be more broadly applied to the general feelings elicited by hearing about a client's experiences. Peterfreund (1975) said, "to be truly understood, one must evoke similar experiences in the receiver" (as reported in Lindy, 1988, p. 244). Thus, in hearing a client's description of his or her trauma, the therapist may begin to feel as the client does or did in the moment of the event.

According to Markus (1977) "Self-schemata are cognitive generalizations about the self, derived from past experience, that organize and guide the processing of self-related information contained in the individual's social experiences" (p. 64). Self-schemas are beliefs about the self and expectations about how the world functions. Janoff-Bulman (1985) asserted that an event in which one becomes a victim challenges three basic beliefs about the world and oneself; the belief in one's personal invulnerability, one's positive self-view, and the belief that the world had order and meaning. Therefore, therapists who work with trauma victims may experience similar disruptions in their own cognitive schemata; in their beliefs about how safe the world is and in their sense of control.

It is of little surprise that ST in the mental health field is believed to be a large contributor to professional burnout. Burnout has been defined as a gradual emotional fatigue (Bell, 2003); it is "a state of physical, emotional and mental exhaustion caused by long term involvement in emotionally demanding situations" (Pines & Aronson, 1988, p. 9). The symptoms of burnout in the context of mental healthcare are usually described as boredom, compassion fatigue, or depression (McCann & Pearlman, 1990). The terms

secondary trauma and *burnout* within the mental healthcare profession are often confused and appear similar in some ways. Burnout, however, can occur despite the population with which one works (trauma victims or not), as studies have found them to be two separate constructs (Kassam-Adams, 1999; Schauben & Frazier, 1995), and ST seems to have more detrimental effects to the MHP and the clients, in turn.

Expediting burnout is only one damaging effect of ST. Dutton and Rubenstein (1995) outlined three major ways a MHP can be affected by ST: (1) psychological distress, (2) negative alterations in self-schemas, and (3) negative changes in relationships. Psychological effects can closely resemble PTSD including depression, fear, shame, anxiety, intrusive thoughts, nightmares, sleep disturbances, avoidance of situations or clients that elicit negative feelings, and somatic complaints such as headaches. As previously mentioned, alterations in self-schemata can include changes to one's level of trust in others, sense of control or power, or self-esteem, and might lead to victim blaming. Changes in the MHPs' relationships can occur as a result of ST due to a higher stress level, a mistrust of others, and emotional distancing. MHPs may also begin to over-identify with the trauma victim or begin to blame the victim as a means of dealing with strong emotional reactions.

Pearlman and Saakvitne (1995), leading researchers in ST, relayed that therapists who are suffering from ST put their clients at risk for further emotional injury, as they may not understand that their own ST can alter their reactions to certain clients. They also posit that, "...the entire field of trauma therapy is at risk of extinction if overtaxed providers are unable to mitigate the deleterious effects of their work upon themselves"

(p. 2). The consequences of ST on the therapists and, in turn, the clients, make ST a very important topic of specific study.

The potential for experiencing ST has been examined and researched in several types of MHPs; from those who work with war veterans (Lindy, 1988) to social workers (Bell, 2003), to substance abuse counselors (Fahy, 2007). Although ST seems to occur within all types of MHPs and across varied clinical populations (Dutton & Rubinstein, 1995), there is a paucity of research on ST among MHPs who work in rural areas. Research suggests that MHPs in rural Alaska experience unique challenges that providers in urban areas may not (Brems, Johnson, Warner, & Weiss Roberts, 2006). For example, MHPs in rural Alaska may be particularly prone to ST for several reasons, including high demand for clinical services with little assistance, the severity of the problems among their clients and communities, and the unique dual relationships that rural providers are likely to encounter.

Pilot Study

As a pilot study for this research, five MPHs who worked in rural Alaska were interviewed (Johnson, 2009). The providers lived and worked in areas of the state that were both on and off of the road system. All locations fit the definition of "rural" according to the U. S. Census Bureau (2000), which defines "urban" locations as areas with 1,000 inhabitants per square mile and "rural" as any area that does not meet this criterion. The education level of the participants ranged from Bachelors level to Doctoral level. Their years of professional experience ranged from several months to almost 20 years, with several months to two years of experience providing services in rural Alaska.

Participants were selected from a list of MHPs in rural Alaska who worked with the Alaska Psychiatric Institute's Telebehavioral Health program (TBH) in 2009. Nine individuals were contacted, with five electing to participate. All participants were asked the same nine questions during an interview either in person or via TBH video equipment:

1) How long have you been a mental health provider?

2) What do you know about secondary trauma?

3) Have you ever received any training on secondary trauma? If so, what training?

4) Have you or anyone you have worked with (please do not disclose that person's name) ever experienced it?

5) How did you/ she/ he know that you were experiencing it?

6) How did you/ she/ he cope with it?

7) How do you personally prevent secondary trauma?

8) What resources are available for you to prevent or deal with secondary trauma in your community?

9) Do you believe that secondary trauma adds to the high turnover rate for mental health providers in rural Alaskan communities?

All interviewees relayed important information about their experiences with ST. All had an understanding of the meaning of the term, despite reporting that they had received minimal education on the subject. They discussed how the stressors of their

work can lead to ST, how they cope with those stressors, and what resources are available to them within their communities.

Knowledge about ST. All of the interviewees relayed that they knew what ST was, however several were uncertain as to the difference between ST and burnout. No matter the level of education or the type of degree they attained, all relayed that they had relatively little education on secondary trauma. All five MHPs stated that ST was the topic of very few (approximately one or two) lectures across the entirety of their coursework, that they had not taken a formal class on the topic; some stated that they had obtained more clarity on the subject after reading the consent form for this research. Several interviewees expressed that their education on ST came primarily from workshops or conferences that they attended after they had already been working as MHPs.

Sources of ST and symptoms. Interviewees discussed some of the work they do, which included working with sex offenders and individuals with drug or alcohol addiction, adults and child victims of abuse, or working with families or a community after a suicide. Three of the five MHPs stated that working with children was particularity difficult and tended to cause more emotional stress.

All but one of the MHPs interviewed expressed that they had either personally experienced some symptoms of ST or knew of coworkers who had experienced such problems. Four of the five participants indicated that they had personally experienced or knew a colleague who had experienced: nightmares about a client or what a client had experienced; ruminating or negative thoughts; isolating from colleagues and not

discussing their stressors; avoiding certain clients; having flashbacks about a client or having a client's experiences trigger a flashback of a traumatic event that had happened to them personally; experiencing a general sense of anxiety or irritability; and having negative emotional reactions to things they normally would not. The MHPs also relayed that they experienced or knew a colleague who had experienced a reduction in appetite, difficulty sleeping or oversleeping, or other stress-related physical symptoms such as headaches as a result of working with clients.

These symptoms appear to mirror those of PTSD and acute stress disorder, which include nightmares about an event, changes in sleep patterns, heightened anxiety, detachment from others, and avoidance of stimuli that remind the person of the traumatic event (American Psychiatric Association, 2000).

Coping mechanisms and sources of support. Interviewees all discussed several sources of emotional support that helped them to cope with ST or general work-related stress. Of the five MHPs interviewed, two stated that they believed that ST could not be prevented, and indicated that they may inevitably have a client with a story that they were not prepared to hear: "... there is always a client who brings you something you were not ready for. So I think you can't prepare for it but you can recognize what you're experiencing." Another MHP relayed that she mentally prepares herself when she knows that a client may come in with a difficult story and another MHP stated that she prevents ST by reducing work-related stress (by declining projects that would overwhelm her time, being aware of how she is feeling, and engaging in activities that she enjoys).

While some felt ST may not be entirely preventable, all interviewees discussed resources that helped them to reduce their distress. Three of the MHPs discussed resources available to them in their small communities, specifically religious organizations and community centers or the local gym. Two of these MHPs, however, also stated that it is impossible to avoid seeing clients in the community (e.g., at the local gym or grocery store) thereby making "getting away" from work very difficult. All five interviewees discussed other coping mechanisms which primarily involved engaging in hobbies (such as art), their spirituality, and talking to friends or family, colleagues, or supervisors.

All interviewees expressed that supervision was key in reducing their stress. Those whose supervision was lacking at any point in their professional lives were keenly aware of the impact. All five MHPs discussed the importance of having supportive supervisors, colleagues, and friends or family members. However, these MHPs also discussed the limitations of these sources of support. Clinical work can be isolating (especially in rural Alaska) not only from friends and family (who several interviewees discussed as living far away in different time zones), but also from other professionals. One clinician said that while it is helpful to talk with friends, she cannot fully explain what she experiences in her working life because, firstly, she cannot break the confidentiality of the clients and, secondly, she fears traumatizing her friends by the stories she must hear as part of her work. Another interviewee stated that MHPs may not discuss their ST with peers for professional reasons: "You don't want to show too much because people start second guessing your abilities."

This pilot study highlighted that within our state, in rural and urban settings alike, MHPs might encounter unique challenges. Perpetually encountering clients and families outside of the clinic setting might add additional stress to an already taxing job. These interviews illustrated that, in such an environment, self-care and good working relationships with other professionals in the field might be vital. Not all providers, however, are in the position to engage in such activities due to lack of community resources and professional colleagues. In addition to issues that arise from living and working in a small community, the Alaskan population and providers as a whole experience other challenges.

Unique Challenges to Providing Mental Healthcare in Alaska

Turnover rate. The turnover rate for all types of healthcare providers in rural Alaska is high. According to the former Alaska Department of Health and Human Services Commissioner, Alaska had 1,033 openings for behavioral health positions in 2007, equating with a vacancy rate of 13.9 percent with a mean vacancy length of over 17 months (Capital City Weekly, 2009). These vacancies represented the needs from all over Alaska (Capital City Weekly, 2009), however, it is possible that openings in rural areas go unfilled far more frequently and for longer periods of time.

While there has been no previous examination of ST in reference to job turnover in Alaska, providers in the pilot study for this research reported that they see it as a large contributor. Other research has alluded to the potential for turnover as caused by burnout or ST. Drake and Yamada (1996) found that emotional exhaustion was highly related to

job exit among child protective services workers, and several researchers argue that burnout is a very large contributor to turnover (Janssen, 1999; Maslach & Jackson, 1981).

A shortage of MHPs in Alaska leaves those who are serving small communities taxed for assistance and time. Adding to this stress, the concerns that face rural Alaskan communities occur at exorbitant rates in comparison to other areas. Alaskan communities, rural and urban alike, suffer significant impacts from mental health, drug, and alcohol problems.

Mental illness and addiction. The State of Alaska Department of Health and Social Services (2009) estimated that in 2006, 4.6% (21,754) of Alaskan adults suffered from a serious mental illness and 7.2% (12,725) of youth in Alaska were severely emotionally disturbed. The National Survey on Drug Use and Health (which involves direct interviews of individuals in the U. S.) conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) estimated that there were also approximately 47,000 individuals over the age of 12 with an alcohol abuse or dependence problem and approximately 16,000 individuals over the age of 12 with an illicit drug dependence or abuse problem residing in Alaska in 2008 (State of Alaska Department of Health and Social Services, 2009). These numbers only include those with a clinically diagnosable disorder that caused substantial impairment and that persisted over one year (State of Alaska Department of Health and Social Services). According to the SAMHSA's (2010) most recent data, the proportion of children and adults with mental health and substance abuse disorders in Alaska is comparable to other states; however some mental health problems occur at far higher rates in Alaska. For example, the suicide

rate in Alaska, in particular, was more than twice the national average in 2007 and only grew in 2008 (State of Alaska Department of Health and Social Services, 2010).

Suicide. Suicide is a paramount concern in Alaska; while the national suicide rate in 2007 was 11.5 per 100,000, Alaska's overall rate was nearly double that at 21.8 per 100,000 (Statewide Suicide Prevention Council, 2011). Between 2000 and 2009, 1,369 Alaskans committed suicide in 176 different communities (Statewide Suicide Prevention Council, 2010). The death rate by suicide was 20.2 in every 100,000 people living in the state in 2009, and the rate of suicide attempts was 99.3 per 100,000 in 2007 (Statewide Suicide Prevention Council, 2010). Suicide is either the first or second leading cause of fatal injuries in Alaska for those age 10 and older (Alaska Trauma Registry, 2011a), and suicide attempt is the first or second leading cause of non-fatal hospitalizations in Alaska for those ages 15 to 74 (Alaska Trauma Registry, 2011b)

Rural Alaska continues to have higher rates of suicide than urban areas; between 2003 and 2006, 45% of the deaths by suicide were in rural locations (which accounts for 46% of the Alaskan population) (Statewide Suicide Prevention Council, 2007). From 1997-2006 suicide rates varied greatly across regions of the state; the Northwest Arctic and Nome Census areas had the highest rates (around 80 per 100,000); the Kodiak Island Borough had the lowest rate at approximately 14 per 100,000 (Statewide Suicide Prevention Council, 2008).

It is estimated that one Alaska Native person dies from suicide every eight days and males accounted for three out of four Alaska Native Peoples suicide deaths [Alaska Native Tribal Health Consortium (ANTHC), 2009a]. As of 2005, the rate of suicide for

Alaska Natives Peoples (42 per 100,000) was triple the rate for Alaskan non-Natives Peoples (13.8 per 100,000) (Statewide Suicide Prevention Council, 2007) and disproportionate, as Alaska Native Peoples or Native American Peoples made up 14.8% of Alaska's population (U.S. Census Bureau, 2010a). This disproportionate trend is seen throughout the United States (U.S. Census Bureau, 2009). However, in comparison to other states with large indigenous populations, Alaska's rate is alarming. In Oklahoma, the state with the second largest Alaska Native Peoples or American Indian population (U.S. Census Bureau, 2010b) the rate of suicide among American Indians was almost half that of Oklahoma's Caucasian population (Oklahoma State Department of Health, 2011).

Alaskan youth. Clinicians may be more emotionally taxed when working with children (Child Trauma Academy, 2002; Johnson, 2009) and the needs of children and teens in Alaska are great, especially in terms of youth suicide and child maltreatment.

Suicide in Alaskan youth. According to the Alaska Trauma Registry (2011a), 186 Alaskan youths (ages 10-24) died by suicide between 2005 and 2009 and 1,362 were hospitalized due to a suicide attempt (Alaska Trauma Registry, 2011b). As with all age groups, youth suicide in rural areas is disproportionally higher than in urban areas.

According to Alaska's 2001 Youth Risk Behavior Survey, 8.7% of traditional high school students [State of Alaska Department of Health and Social Services (DHSS), 2011a] and 13.2% of alternative high schools students (DHSS, 2011b) throughout the state attempted suicide in the past year. The survey also found that 14.5% of students in traditional high schools (DHSS, 2011a) and 21.2% of students in alternative schools (DHSS, 2011b) seriously considered attempting suicide. Yet another 12.8% in traditional

schools (DHSS, 2011a) and 17.0% in alternative schools (DHSS, 2011b) made a plan for suicide. Other factors may put youth at increased risk for suicide including depression, bullying, and relationship violence. In the past year, 25.9% of traditional high school students (DHSS, 2011a) and 37.9% of alternative school students (DHSS, 2011b) in Alaska felt so sad or hopeless that it impaired their normal functioning. The survey also found that 23% of high school students were bullied in school (and 15.3% cyber-bullied), 12% experienced physical violence from a boyfriend/girlfriend, and 9.2% were forced into unwanted sexual intercourse (DHSS, 2011a).

Child maltreatment in Alaska. In 2009, the average rate of child maltreatment in the U.S. was 9.2 children per 1,000 experiencing one or more types of abuse; Alaska's rate was 15.4 per 1,000 children, making Alaska's rate of child maltreatment one of the highest reported in the nation (U.S. Department of Health & Human Services, 2010). In 2010, the Alaska Office of Children's Services investigated reports of harm to over 15,000 Alaskan children and of those cases, approximately 54% were substantiated (A. Cantil-Voorhees, Research Analyst, State of Alaska Office of Children Services, personal communication, April 27, 2011).

Dual relationships in rural areas. In addition to the desperate need for more mental health services, providers in rural areas are also faced with unique dual relationships. Many MHPs, particularly Behavioral Health Aides (BHAs), work in the communities in which they were raised, making dual relationships practically inevitable. The BHA position was developed to meet the needs of rural Alaska, where it can be difficult to hire and maintain MHPs from outside of the community (Alaska Native Tribal

Health Consortium, 2009b). BHAs obtain approximately two years of mental-health related education post high school graduation and are a job classification unique to Alaska. Because BHAs are most often based in small rural communities, they face the challenges of treating friends, relatives, and acquaintances. One would assume that these types of clinical relationships increase the possibility of ST; providing services for family members or acquaintances experiencing trauma may make any MHP more vulnerable to emotional entanglement with clients, especially BHAs who have relatively less training and work in very small rural communities. To date, however, there is no research at present to support this assumption.

Goals of This Study

While ST has been increasingly examined since the 1990s (Stamm, 2010), no research has examined this phenomenon in providers in Alaska. The purpose of this study was to explore the issue of ST among MHPs in Alaska, particularity in rural Alaska where MHPs experience unique challenges and high turnover rates. Specifically, the broad goals of this study were to investigate: (1) how frequently ST occurs among MHPs in the state of Alaska, (2) what factors put providers at increased risk for ST (e.g., geographic location, educational background, experience, caseload), and (3) how providers prevent and cope with this type of professional stress. This study was accomplished in two phases, where Phase One is a wide-scale survey of providers in Alaska about their experiences with ST and where Phase Two is a subsequent qualitative follow-up phase with MHPs from phase one who were willing to discuss ST in a focus group format. The quantitative portion of this study aimed to create a predictive model to

identify MHPs who may be at increased risk for ST. This was accomplished by measuring variables that have been found to be associated with ST in previous research discussed below.

Correlates of Secondary Trauma and Constructs Examined in Phase One

Fourteen predictors of ST were examined in Phase One of this study; these constructs have all been linked with ST in previous research. They include

(1) level of MHP education (Chrestman, 1999; Follette, Polusny & Milbeck, 1994; Ghahramanlou & Brodbeck, 2000; Pearlman & Mac Ian, 1995),

(2) type of geographic area where the provider works (rural versus urban) (Catalano, 1997; Johnson, 2009),

(3) providing services to family/acquaintances,

(4) the degree to which an MHP must interact with clients outside of the work setting (Johnson, 2009),

(5) length of time providing MH services (Brady, Guy, Poelstra, & Brokaw, 1999; Chrestman, 1999; Pearlman & Mac Ian, 1995; Rich, 1997),

(6) size of case load (Brady et al. 1999; Chrestman, 1999; Kassam-Adams, 1999; Schauben & Frazier, 1995),

(7) proportion of clients in case load being treated for trauma (Brady et al., 1999; Chrestman, 1999; Schauben & Frazier, 1995),

(8) whether or not the MHP has a trauma history similar to that of clients (Follette et al., 1994; Ghahramanlou & Brodbeck, 2000; Kassam-

Adams, 1999; Pearlman & Mac Ian, 1995),

(9) opportunity to debrief (Farrenkopf, 1992; Follette et al., 1994; Johnson; Pearlman & Mac Ian, 1995; Rich, 1997),

(10) amount of time spent engaging in self-care and feelings about adequacy of self-care (Chrestman; Follette et al., 1994; Johnson, 2009; Pearlman, 1999; Rich, 1997; Schauben & Frazier, 1995),

(11) feelings about adequacy of social support (Galek, Flannelly, Greene, & Kudler, 2011; LaRocco, House, & French, 1980; Uchino, Cacioppo, & Kiecolt-Glaser, 1996),

(12) degree of embarrassment or reluctance to discuss ST with a colleague (Hesse, 2002),

(13) the provider's age (Ghahramanlou & Brodbeck, 2000; Pearlman & Mac Ian, 1995), and

(14) gender of the provider (Kassam-Adams, 1999). The research behind these 14 predictive constructs as they relate to ST is presented below.

Construct 1: Level of education. Two studies suggest that more clinical training and professional experience are associated with reduced ST (Chrestman, 1999; Follette et al., 1994; Pearlman & Mac Ian, 1995). However, another study did not find education to be correlated with ST symptoms (Ghahramanlou & Brodbeck, 2000).

Those with a higher level of education tend to be paid at a higher rate but there are conflicting research findings regarding the correlation between income and ST. One study found that higher income seems to mitigate the levels of ST symptoms experienced

by MHPs (Chrestman, 1999), whereas another study found that income was not related to ST symptoms (Pearlman & Mac Ian, 1995).

The existence of contradictory results on levels of education and ST warrants additional study. Given that several studies did find that ST was negatively correlated with education, and based on the pilot study in which providers relayed that they would have liked more education on ST, less education was hypothesized to be a significant predictor of more ST in this study.

Construct 2: Location of work (urban versus rural). MHPs in rural communities experience challenges that providers in urban areas do not, such as increased case load, being the only provider on-call, and managing dual relationships (Catalano, 1997). Rural providers may also lack the professional support that allows for debriefing and reduced workload (Johnson, 2009). Therefore providers in rural areas were expected to report higher levels of ST than those in urban areas in the present study.

Construct 3: Treating family, friends, or acquaintances. As treating friends and family members can be seen as violating ethical guidelines for MHPs (American Psychological Association, 1992), there is a paucity of research on how many MHPs have had to treat people they know and the emotional implications to these MHPs. As the purpose of the BHA training program in Alaska is to train individuals to provide clinical services in their own rural communities, being involved in the treatment of family and friends, on some level, seems an unavoidable reality. Therefore, MHPs who reported treating people they have known prior to therapy were expected to report more ST than those who do not experience this type of dual relationship.

Construct 4: Interacting with clients outside of clinical setting. Even if they are not treating family or friends, rural providers from small communities are likely to come across their clients outside the clinical setting. MHPs in previous research reported that regular interaction with clients and clients' family members outside of the clinical setting can make work-related stress relief difficult and may perpetuate ST (Johnson, 2009). Thus providers reporting more interaction with clients outside of the work setting were hypothesized to report more ST than those who do not have such contact with clients outside the workplace.

Construct 5: Length of time providing services. Length of time providing treatment services has been associated with higher levels of reported ST in MHPs (Brady et al., 1999; Chrestman, 1999; Pearlman & Mac Ian, 1995; Rich, 1997). Pearlman and Mac Ian found that while length of time doing trauma work was correlated with higher levels of ST overall, less experienced clinicians reported more issues with levels of self-trust and self-intimacy.

Related to length of time as a clinician, having opportunities for continuing education has been studied as a predictor of ST. One study found that those who have more continued education credits tended to have less ST symptomology (Chrestman, 1999), which may help protect against the effects of ST. Given the mixed findings, a quadratic relationship between ST and length of time providing services was hypothesized in this study; individuals who have been providers for long and short periods would report more ST than those in the middle range of their careers.

Construct 6: Work/caseload (hours in direct client contact). Research documents that amount of exposure to traumatized clients is associated with higher rates of ST (Brady et al., 1999; Chrestman, 1999; Kassam-Adams, 1999; Schauben & Frazier, 1995). However, evidence is lacking on how levels of client contact in a MHP's caseload relates to levels of ST. Some clinicians perform scholarly research as part of their professional workload, and Chrestman (1999) found that those who have more research as part of their workload tended to have less ST symptomology than clinicians who engage in little or no research. While scholarly research endeavors may apply more to academic clinicians, engaging in projects that are part of workload but that do not involve providing direct clinical care (such as scholarly research) could potentially lessen ST. It is predicted that providers who have a caseload with higher levels of client contact would report experiencing more ST than those who spend more time engaged in direct client care.

Construct 7: Proportion of caseload that is trauma-related. A study of over 500 women psychotherapists from across the U.S. found that those who had a higher rate of sexual abuse survivors on their caseloads reported significantly more ST symptoms themselves (Brady et al., 1999). Chrestman (1999) also found a significant positive correlation between amount of exposure to traumatized clients and intrusion and avoidance symptoms in therapists. Schauben and Frazier (1995), who surveyed almost 150 women counselors, found that those who had more trauma survivors on their caseloads identified themselves as having more ST, PTSD symptoms, and disruptions in their self-schemas. Therefore, providers reporting that they treat more trauma clients

were expected to report experiencing more ST than those who have fewer such clients on their caseloads.

Construct 8: Similar trauma history with clients. Several studies have found that a therapist's own history of maltreatment is correlated with higher ST symptomology (Follette et al., 1994; Ghahramanlou & Brodbeck, 2000; Kassam-Adams, 1999; Pearlman & Mac Ian, 1995). The odds that a therapist has experienced some form of maltreatment may be high. One study of nearly 400 clinicians who worked with sexual abusers and victims found that 76% of their respondents experienced some form of maltreatment themselves (51% emotional neglect, 51% emotional abuse, 39% sexual abuse, 26% physical abuse; Way, VanDeusen, & Cottrell, 2007). Other studies have reported over one-half of their samples (comprised of therapists) had experienced a trauma (Ghahramanlou & Brodbeck, 2000; Pearlman & Mac Ian, 1995). It was expected that providers who have a similar trauma history as their clients will report experiencing more ST.

Construct 9: Time debriefing and having a trusted supervisor or other MHP. In studies of effective means of relieving clinical work stress and ST, clinicians frequently reported that supervision and support from colleagues is very helpful (Farrenkopf, 1992; Follette et al., 1994; Johnson, 2009; Pearlman & Mac Ian, 1995; Rich, 1997). Therefore, providers who do not have a trusted supervisor or other MHP with whom to debrief and those who spend less time engaged in debriefing were expected to report experiencing more ST in the current study.

Construct 10: Adequacy of and time spent in self-care. Clinicians frequently report that myriad ways of engaging in self-care (such as such as physical exercise, spiritual practices, and socializing) are helpful in relieving work-related stress (Chrestman, 1999; Follette et al., 1994; Johnson, 2009; Pearlman, 1999; Rich, 1997; Schauben & Frazier, 1995). It was expected that providers in this study who spend more time engaged in self-care and feel their level of self-care to be adequate will report experiencing less ST than MHPs who engage in less self-care.

Construct 11: Social support. Social support is an important factor in overall good health. Several studies have found that social support can ameliorate the effects of such things as depression, anxiety, and somatic complaints on general health (LaRocco, House, & French, 1980; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). In a recent study of chaplains, the amount of social support was found to be correlated with lower levels of ST (Galek et al., 2011). MHPs in the pilot study of the current project also discussed the importance of family and friends in helping them to cope with professional stress. Therefore, it was hypothesized that those with more social support would report less ST in the present quantitative study.

Construct 12: Embarrassment to discuss ST. Hesse (2002) argued, "If a trauma therapist is ashamed, embarrassed, or in denial of painful feelings that emerge when hearing clients' stories, he or she is not likely to take measures that can reduce the pain or stress" (p.304). Hesitance to discuss ST with co-workers or supervisors was also discussed in the pilot study for the current project. Therefore, MHPs who reported being

more embarrassed or hesitant to discuss ST were predicted to experience more ST symptoms in the current quantitative research.

Construct 13: Age. Ghahramanlou and Brodbeck (2000) found that younger counselors experienced more ST symptoms, than older counselors. While Pearlman and Mac Ian (1995) found that early-career professionals experienced more issues with their levels of self-trust and self-intimacy, it is unclear if those who were newer to their field were significantly younger than more experienced counterparts. Therefore, this study included age as a predictor in addition to length of time providing mental health services. It was expected that younger individuals will report more ST.

Construct 14: Gender. Very little research has focused on how gender relates to risk of experiencing ST. Kassam-Adams (1999) found that women therapists tended to report more ST than men, however, the women therapists in her sample had more personal trauma history and had more sexually-traumatized clients in their caseloads than their male counterparts. As both trauma history and larger caseload of trauma clients have been found to correlate with ST, it is possible that these factors, and not gender, are linked to the higher ST rates in women therapists. It was expected that there would be no gender differences in ST in this study once similar trauma history is controlled.

Chapter 2 Phase One: Quantitative

The first phase of this research involved having mental healthcare providers (MHPs) from across Alaska complete an online survey including: (1) the 17-item Secondary Traumatic Stress Scale (STSS), which measures secondary trauma (ST) among MHPs (Bride, Robinson, Yegidis, & Figley, 2004) and (2) a 28-item questionnaire developed for this study to measure provider characteristics hypothesized to be important predictors of ST.

Method

Participants and sample size. According to the State of Alaska Department of Commerce, Community and Economic Development (DCCED, 2011) there were 1,144 individuals in Alaska who held full or temporary licenses to provide some form of psychotherapy services as of August 8, 2011. These included Licensed Professional Counselors (LPC), Marriage and Family Therapists (LMFT) and LMFT Associates, Licensed Clinical Social Workers (LCSW), Psychologists, Licensed Psychological Associates (LPA), and courtesy or temporary Psychologist and LPA license holders. See Table 1 for the number of providers in each licensed group. Of those providers, 76% had mailing addresses in urban areas of Alaska and 24% had mailing addresses in rural areas. This list of licensed providers is publically available on the DCCED website. Licensed providers throughout Alaska were selected for recruitment through the DCCED website, which provides names and mailing addresses.

There were also approximately 120 BHAs working in rural Alaska in 2010 [A. Unok, Alaska Native Tribal Health Consortium (ANTHC), personal communication,

February 25, 2010]. There are four levels of BHA certification; BHA I, BHA II, BHA III, or BH Practitioner (BHP). All four levels are determined by hours of training, supervision, practice, and coursework completed (ANTHC, 2010). Behavioral Health Aides/Practitioners work in small communities throughout the state. Therefore, the two sampling frames planned for use for this survey were: (1) the list of all licensed MHPs and (2) the list of all certified BHAs working in Alaska. The list of BHAs is only available through ANTHC or the tribal organization for which they work. Additionally, the lists of BHAs is only available after approval is received from the Alaska Area Institution Review Board, the ANTHC research review committee, and the different regional tribal organizations' research review committees have given permission.

In order to calculate the desired sample size for a given survey, a researcher needs to consider the sample size needed to: (1) have adequate statistical power to test hypotheses, and (2) generalize findings to the given population size within a reasonable margin of error; typically a 95% confidence interval (Dillman, Smyth, & Christian, 2009; Kline, 2004). To conduct a power analysis, one needs to know the type of statistical analysis that will be used, the alpha level that will be utilized, and the likely effect size in the population. The first two factors will always be set by the researcher; the effect size, however, can be difficult to determine when there is little previous research on this topic to consult. In such instances, it is common to estimate that a medium effect size exists in the population, and insert such a value into a power analysis (Connelly, 2008; Kline, 2004). Given that there is no available research on the frequency or predictors of ST in Alaska, a medium effect size estimate was used in the power analysis for the present

study. When calculating the sample size needed to detect a medium effect size of 0.13 using multiple regression analysis (Cohen, 1987), with the 14 predictor variables included in this study, a minimum of 222 surveys should be collected.

In regards to population generalizability, a sample size of approximately 291 is needed to generalize to a population size of 1,200 with a 95% confidence interval, a $\pm$5% margin of error, and assuming maximum heterogeneity in responses (The Research Advisors, 2006). In order to obtain generalizable results, the list of licensed providers in Alaska was stratified into urban and rural providers and the appropriate target sample size for each group was calculated (76% urban and 24% rural).

Areas considered rural were defined using the U.S. Census Bureau's classification of those areas without a population density of 2,500 or higher (U.S. Census Bureau, 2000). A map of metropolitan and non-metropolitan areas of Alaska is seen in Appendix A. For the sake of dividing Alaskan cities into 'urban' and 'rural' for the purposes of recruitment, urban was defined as Anchorage, Girdwood, the Matanuska-Susitna Valley (Chugiak, Eagle River, Palmer, Wasilla), Fairbanks, and Juneau. All other areas were considered 'rural.' See Table 1 for how many providers were in urban and rural areas and for breakdown of urban/rural percentage by type of license.

Table 1

Percentage of Providers by Type of License and Rural/ Urban Delineation

Type of License	N	Percent of Total Licensed Providers (N=1,144)	Number of Recruitment Letters (450 total) Mailed based on Percentage of Total Providers
LCSW	**407**	**35.58%**	**160**
Urban	301	26.31%	118
Rural	106	9.27%	42
LPC	**464**	**40.56%**	**183**
Urban	350	30.59%	138
Rural	114	9.97%	45
LPA	**39**	**3.41%**	**15**
Urban	34	2.97%	13
Rural	5	0.44%	2
Temp. LPA	**3**	**0.26%**	**1**
Urban	3	0.26%	1
Rural	0	0.00%	0
MFT	**78**	**6.82%**	**31**
Urban	57	4.98%	22
Rural	21	1.84%	8
MFT Associate	**6**	**0.52%**	2
Urban	3	0.26%	1
Rural	3	0.26%	1
Psychologist	**139**	**12.15%**	**54**
Urban	110	9.62%	43
Rural	29	2.53%	11
Temp. Psychologist	**8**	**0.70%**	4
Urban	7	0.61%	3
Rural	1	0.09%	1
Total Number of Licensed Providers	**1,144**		
Total Urban[a]	342	76%	342
Total Rural[b]	108	24%	108
BHAs	**14**		
Rural	14		

[a]Urban is defined as Anchorage, Girdwood, the Matanuska-Susitna Valley (Chugiak, Eagle River, Palmer, Wasilla), Fairbanks, and Juneau.
[b]Rural is defined as all other areas.

The ANTHC BHA Program provided the mailing addresses of the BHAs after the research had been approved by the University of Alaska Anchorage Institutional Review Board (IRB), the Alaska Area IRB, and the regional tribal organization for which the BHAs worked (See Appendix B for letter of support from the Director of the Alaska Behavioral Health Aide Program). While it was intended that all BHAs in Alaska would receive recruitment letters, only one regional approval was secured in the timeframe that allowed for data collection for this research.

Recruitment method. Dillman et al. (2009) provide evidence that small incentives included with a recruitment letter (prior to survey completion) can greatly improve response rate over rewarding participants post-completion. Several studies have illustrated that including a small, prepaid incentive as part of the recruitment procedure increases response rate. One study found that a $5 cash incentive yielded a significantly higher response rate (64.2%) from participants than being entered into a lottery (44.7%) or receiving no incentive at all (42.2%) (Ulrich et al., 2005). Another study received a higher response rate from those who were sent $2 (72%) than those who were entered into a lottery (58%) (Lesser et al., 2001). Including a pre-paid incentive also reduces non-response bias, thus allowing a more representative sample of MHPs (Dillman et al., 2009). In light of this, a cash incentive of $2 was included in the letters soliciting participation in the online survey for Phase One of the current study.

Utilizing such response rate findings as a guide, a 50 percent response rate for the survey was expected. Therefore, 450 providers (76% rural and 24% urban; proportional to size in population) were contacted to obtain the approximately 222 (≈ 50% response

rate) completed surveys needed. A random number generator was used to decide which 450 of the 1,144 licensed providers would be sent a recruitment letter. Other steps were also followed that tend to achieve a higher response rate, including sending personalized recruitment letters and follow-up letters (Dillman et al., 2009).

Appendix C contains the recruitment letter, which also served as consent, explaining the potential risks and benefits, and providing researcher and university contact information. Recruitment letters were sent with a postcard that could be returned to request a paper copy of the questionnaire if participants did not wish to complete the questionnaire online (see Appendix D for the postcard). Follow-up letters were sent six weeks after the recruitment letter was mailed to those who had not responded (see Appendix E for follow-up letter). All participants received a unique code on their recruitment/follow-up letters to input with their survey responses, which allowed for tracking of who was to receive a follow-up letter. Codes for those who responded were deleted from the participants' survey data. To protect the respondents' confidentiality, any response groups with five or fewer responses were suppressed (e.g., if there were five or fewer individuals who reported that they were 'transgender,' those data were not reported for that group).

Materials

Secondary Traumatic Stress Scale (STSS). There are four major diagnostic criteria for PTSD in the Diagnostic and Statistical Manual of Mental Disorders (DSM); (1) exposure to a traumatic event, (2) the event is re-experienced through intrusive thoughts, dreams, and emotions, (3) the person attempts to avoid stimuli that are

associated with the traumatic event, (4) the person experiences arousal symptoms such as hypervigilance or difficulty sleeping, (5) symptoms last more than one month, and (6) the symptoms cause the person significant and discernable distress [American Psychiatric Association (APA), 2000]. The Secondary Traumatic Stress Scale (STSS) was developed in 1999 based on these PTSD criteria (Bride et al., 2004). The criteria for PTSD remains the same for the most recent publication of the DSM, the Diagnostic and Statistical Manual, 4th Edition, Text Revised (APA, 2000).

The STSS is a 17-item questionnaire that measures a provider's level of ST (Bride et al., 2004 see Appendix F for original STSS and Appendix G for STSS as formatted for the present study's online questionnaire). The responses to statements such as "I had disturbing dreams about my work with clients" and "I wanted to avoid working with some clients," are answered on a 1 to 5-point Likert scale, where 1 = *never* and 5 = *very often.* The STSS provides four scores:

1) Intrusion: Add items 2, 3, 6, 10, 13 (scores range from 5-25)

2) Avoidance: Add items 1, 5, 7, 9, 12, 14, 17 (scores range from 7-35)

3) Arousal: Add items 4, 8, 11, 15, 16 (scores range from 5-25)

4) Total STSS score (scores range from 17-85)

The initial validation study of the STSS was conducted with 287 licensed clinical social workers (Bride et al., 2004). The mean total STSS score for the validation sample in Bride et al.'s 2004 study was 29.49 (SD = 10.76), Intrusion was 8.11 (SD = 3.03), Avoidance was 12.49 (SD = 5.00) and Arousal was 8.89 (SD = 3.57). Bride et al. also found that all four of the STSS scores had good internal consistency reliability as

assessed by Cronbach's α (for Intrusion subscale α = .83; for Avoidance subscale α = .89; for Arousal subscale α = .85; for Full scale α = .94; Bride et al., 2004). Results for the STSS in Bride et al.'s study are presented in Table 2 below.

Table 2

Table of STSS Validation Sample Data from Bride et al. (2004)

Table 1: Convergent and Discriminant Validity				
	Intrusion Subscale	Avoidance Subscale	Arousal Subscale	Total STSS
Convergent				
Extent (n=281)[a]	.269*	.211*	.260*	.260*
Frequency (n=283)[a]	.225*	.200*	.228*	.232*
Depression (n=284)[a]	.391*	.516*	.461*	.502*
Anxiety (n=284)[a]	.461*	.507*	.563*	.553*
Discriminant				
Age (n=280)[a]	-.098	-.090	-.073	-.093
Ethnicity (n=285)[b]	-.024	-.061	.027	-.026
Income (n=284)[c]	-.135	-.066	-.060	-.095

a. Pearson product-moment coefficient.
b. Point-biserial coefficient.
c. Spearman's rho
* p<.00179 (two-tailed).
(Table recreated from Bride, Robinson, Yegidis, & Figley, 2004, p. 30)

A follow-up study of the STSS found high intercorrelations amongst the four scores after collecting data from 275 social workers from across the U.S. (Ting, Jacobson, Sanders, Bride, & Harrington, 2005). These high correlations (Intrusion/ Avoidance r = .87, Avoidance/ Arousal, r = .97, and Intrusion/ Arousal r = .94) indicate the possibility that ST is a unidimensional construct. However, when Ting et al. correlated the summed scores of the scales, the intercorrelations ranged from .74 to .83 and a single-factor model in a confirmatory factor analysis did not improve the fit indices of the scale. Therefore while the high intercorrelations of the subscales may give the

initial impression that ST is unidimensional, Ting et al. suggest that there is not enough evidence to indicate that ST is a single construct.

Permission to utilize the STSS for this research was granted by the creator of the scale, Dr. Brian Bride (See Appendix H for permission). Dr. Bride also granted permission to alter the questionnaire so that responses are obtained regarding the past 30 days instead of the past seven days as it was originally designed (See Appendix I for permission to alter the STSS).

Scoring the STSS. After conducting additional research on the STSS with almost 300 social workers from across the U.S., Bride (2007) developed three recommendations for interpreting the STSS scores. The first is that if an individual endorses one or more items on the Intrusion subscale, three or more on the Avoidance subscale, and two or more on the Arousal subscale, then the individual may be experiencing PTSD symptoms due to ST. An item was counted as 'endorsed' if the score indicated that the participant experienced the symptom 'occasionally,' 'often,' or 'very often.' This method of scoring the STSS is based on the Diagnostic and Statistical Manual criteria for meeting a PTSD diagnosis (Bride, 2007).

A second method of interpreting STSS scores is to compare a person's score to the normative scores as outlined in Bride's 2007 study. Table 3 below was recreated from Bride's publication and shows the normative scores.

Table 3

Table of STSS Data from Bride (2007)

Means, Standard Deviations, Ranges, and Percentiles for the Intrusion, Avoidance, and Arousal Subscales and the Full STSS

		Range		Percentile				
	M (SD)	Possible	Observed	25th	50th	75th	90th	95th
Intrusion Subscale	8.13 (3.04)	5-25	5-21	6.00	7.00	11.00	12.00	13.00
Avoidance Subscale	12.58 (5.00)	7-35	7-31	8.00	12.00	16.00	20.00	22.00
Arousal Subscale	8.93 (3.56)	5-25	5-24	6.00	8.00	11.00	14.00	16.00
Full STSS	29.69 (10.74)	17-85	17-74	21.00	27.00	37.00	43.80	48.40

(Table recreated from Bride, 2007, p. 68)

Bride (2007) recommended that persons who score at or below the 50th percentile are experiencing "little or no" ST (scores ≤27), persons who score from the 51st to the 75th percentile are experiencing "mild" ST (scores 28-37), scores at the 76th to the 90th percentile are experiencing "moderate" ST (scores 38-44) scores at the 91st to the 95th percentile are experiencing "high" ST (scores 45-48) and scores above the 95th percentile are experiencing "severe ST" (scores ≥49) (p. 67-68).

Bride (2007) also recommended a third method of interpreting STSS scores based on the scale's sensitivity of .93 and specificity of .91 at the cutoff score of 38. Therefore 93 percent of those who scored above 38 would be correctly identified as having PTSD symptoms and 91 percent of persons who did not score above 38 would be properly

identified as not experiencing PTSD.

Scores of the MHPs in this study will be examined using all three of the scoring guidelines for descriptive purposes. The four STSS scores will used in the multiple regression model to examine the predictive variables.

Demographic/Predictive Variables Questionnaire

The 28-item demographic/predictive variables questionnaire (which was written at a 9.2 grade reading-level) was used to test predictive models to determine who was at increased risk of experiencing ST. Based on the literature review and pilot study (described above), 26 variables, representing 14 constructs, were expected to be correlated with the degree to which a provider experienced ST. The variables that were expected to be risk factors for greater levels of ST were: (1) working in a rural geographic area, (2) longer time providing MH services, (3) larger case load, (4) larger proportion of clients in case load being treated for trauma, (5) having a trauma history similar to that of their clients, and (6) more frequently interacting with clients outside of the work setting and providing services to family/acquaintance. The factors that were expected to be protective factors against higher ST included: (1) higher education, (2) having someone with whom to debrief, (3) time spent debriefing, (4) time spent in and feeling about self-care, (5) and age. Gender differences in ST were not expected after trauma history was controlled. Table 4 shows how each predictive construct was measured. Appendix G contains the full online questionnaire.

Table 4

Questionnaire Divided by Predictive Construct

PREDICTIVE CONSTRUCTS	QUESTIONS
1) Level of Education	1) What is the highest level of education you have completed? * High School / GED * Some College * 2-year College Degree * 4-year College Degree * Master's Degree * Doctoral Degree 2) What is the degree or certification under which you work? * Behavioral Health Aide I * Behavioral Health Aide II * Behavioral Health Aide III * Behavioral Health Practitioner * Masters Counseling Psychology * Ph.D. Counseling Psychology * Masters Clinical Psychology * Ph.D. Clinical Psychology * Masters of Clinical Social Work * Psy.D. Clinical Psychology * Masters Marriage and Family Therapist * Other (please explain): _____

Table 4 continued

2) Location of Work (urban vs. rural)	1) In what kind of community do you work? * Urban community (such as Anchorage, Mat-Su Valley, Fairbanks, Juneau) * Rural community connected to the road system or ferry system (such as Seward, Cordova, Tok, Kodiak) * Rural community NOT connected to the major road system (such as Bethel or Nome) 2) What is the zip code(s) where you primarily work? (This information will only be used to discern local populations and will not be attached to your responses) * (Open-ended)
3) Unique challenges to rural providers: Providing services to people they know	1) Have you ever had to provide services to a family member? * Yes * No 2) Have you ever had to provide services to a friend? * Yes * No 3) Have you ever had to provide services to a long-term acquaintance? * Yes * No 4) Have you ever had to provide services to a casual acquaintance? * Yes * No

Table 4 continued

4) Unique challenges to rural providers: Encountering clients outside of the work setting	5) On average, how many times do you interact with clients or the family members of clients outside of work environment (e.g., attending community events, encountering clients in the grocery store?) * _____ times per week or * _____ times per month or * _____ times per year
5) Length of time providing services	1) How long have you been a mental healthcare professional (after receiving your degree or certification)? * _____Years * _____Months 2) How long have you been providing mental healthcare services in your community? * _____Years * _____Months
6) Work/ caseload (hours in direct client contact)	1) Approximately how many total hours per week do you spend providing individual, family, or group therapy? * _____Hours 2) Approximately what percent of your workday is spent providing direct client services? * _____%
7) Proportion of caseload that is trauma-related	1) Of those total hours providing therapy, approximately how many hours per week do you spend providing treatment to clients who have experienced trauma? * _____Hours

Table 4 continued

8) Similar trauma history with clients	1) Have you ever experienced a trauma similar to that of a client whom you have treated? * Yes * No 2) How many times total have you treated a client who has experienced a trauma similar to yourself? * _____ number of clients * _____ number of sessions 3) How many times in the past 30 days have you treated a client who has experienced a trauma similar to yourself? * _____ times
9) Debriefing	1) Do you have a supervisor or another mental health provider with whom you trust to debrief? * Yes * No 2) On average, how many times per month do you get to discuss clients/debrief with another mental health provider? * _____ times per month 3) On average, how many hours per week do you engage in an activity for reducing work-related stress (e.g., exercise, spending time with friends, doing volunteer work, etc.)? * _____ hours per week

Table 4 continued

10) Self-care	4) Please describe or list the various ways you engage in self-care. * (Open-ended) 5) Please rate the extent to which you agree with this statement: "I feel that I spend enough time engaging in self-care." 1 Strongly Disagree 2 Somewhat Disagree 3 Neither Agree nor Disagree 4 Somewhat Agree 5 Strongly Agree
11) Social support	6) Please rate the extent to which you agree with this statement: "I feel that I have an adequate amount of social support in general." 1 Strongly Disagree 2 Somewhat Disagree 3 Neither Agree nor Disagree 4 Somewhat Agree 5 Strongly Agree
12) Hesitation to discuss ST	1) Would you find it embarrassing or feel hesitant to talk with colleagues about secondary trauma if it was happening to you? 1 Not at all embarrassed/ hesitant 2 Not too embarrassed/ hesitant 3 Somewhat embarrassed/ hesitant 4 Very embarrassed/hesitant
13) Age	1) What is your age? * _____Years

Table 4 continued

14) Gender	1) What is your gender? * Female * Male * Transgender or other
Other Questions	2) Would you be willing to participate in a focus group (via live, videoconference, or telephonic means) with 4-6 other mental health professions to hear the results of the survey and help the researcher better understand the results? * Yes * No 3) If you are willing to participate in the focus group, please provide your name and the best way to contact you in the future (telephone or email). Any contact information you provide will be immediately separated from your responses and not identify you in any way. * (Open-ended)

Hypotheses and Analyses for Phase One

Using the four ST scores as the dependent variables, a series of bivariate correlations, independent samples t-tests, and multiple regression analyses were conducted to predict ST from the set risk and protective factors described above. The hypotheses and the bivariate analyses used to initially test the hypotheses are outlined in Table 5 below.

Table 5

Hypotheses and Analyses

Hypothesis	Primary Analyses
Hypothesis 1: MHPs with higher levels of education will report less ST than those with less education.	1) Spearman Correlations 2) One-way Analysis of Variance (ANOVAs)
Hypothesis 2: MHPs who work in rural locations will report more ST than those who work in urban areas.	1) Pearson Correlations 2) One-way ANOVAs
Hypothesis 3a: Rural MHPs will provide more services to individuals they know.	1) Independent samples t-tests 2) Chi-squares
Hypothesis 3b: MHPs who provide services to people they know experience more ST.	1) Independent samples t-tests
Hypothesis 4a: MHPs in rural communities will report higher frequencies of encountering clients outside of work more than urban providers.	1) Pearson Correlations 2) Independent samples t-tests
Hypothesis 4b: MHPs who do encounter clients more frequently in the community will report more ST.	1) Pearson Correlations 2) Independent samples t-tests
Hypothesis 5a: MHPs who have had longer and shorter careers providing services will report more ST than those in mid-career providing services.	1) Pearson Correlations
Hypothesis 5b: MHPs who have spent more and less time in their communities will report more ST than those at a mid-level of time.	1) Pearson Correlations

Table 5 continued

Hypothesis 6a: MHPs who spend more hours per week and will report more ST than those who spend less time providing direct client services.	1) Pearson Correlations 2) Independent samples t-tests
Hypothesis 6b: MHPs who spend a higher percentage of their time providing direct client services will report more ST than those who spend less time providing direct client services.	1) Pearson Correlations 2) Independent samples t-tests
Hypothesis 7: MHPs who spend more time providing clinical services to persons who have experienced a trauma will report more ST than those who spend less time providing services to such clients.	1) Pearson Correlations 2) Independent samples t-tests
Hypothesis 8: MHPs who have a similar trauma history to their clients will report more ST than those who do not share such a history with clients.	1) Chi-squares 2) Independent samples t-tests
Hypothesis 9a: MHPs who have a supervisor or other professional with whom they trust to debrief will report less ST than those who do not.	1) Chi-squares 2) Independent samples t-tests
Hypothesis 9b: MHPs who spend more time debriefing will report less ST.	1) Pearson Correlations 2) Independent samples t-tests
Hypothesis 10a: MHPs who spend more time engaged in self-care will report less ST than those who spend less time practicing self-care.	1) Pearson Correlations
Hypothesis 10b: MHPs who feel their self-care is more adequate will report less ST than those who feel their self-care is less adequate.	1) Pearson Correlations

Table 5 continued

Hypothesis 11: MPHs who report having more social support will experience less ST.	1) Pearson Correlations
Hypothesis 12: MHPs who are more embarrassed or hesitant to talk about ST will experience more ST.	1) Pearson Correlations
Hypothesis 13: Younger and older MPHs will report higher levels of ST than older individuals.	1) Pearson Correlations
Hypothesis 14: When trauma history is controlled, there will be no differences between men and women MHPs in the amount of ST reported.	1) Chi-squares 2) Independent samples t-tests 3) Analysis of Covariance (ANCOVA)

Following the bivariate analyses, mediator analyses were run using Baron and Kenny's (1986) methodology. Mediator analyses were only completed on those variables found to be significantly related to ST in the initial analyses. Multivariate analyses were also conducted to include all predictors in a single model for Total STSS, Intrusion, Avoidance, and Arousal scores. Multicollinearity was assessed using tolerance and variance inflation factors (VIF); those variables with a tolerance of less than .40 and a VIF of 2.5 or greater were removed from a regression as (n=18) such scores indicate excessive multicollinearity (Allison, 1999). Then multiple regression analyses were used to predict the four STSS scores; Intrusion, Avoidance, Arousal, and Total STSS scores. Predictions of the three sub-scales are parallel to those of the predictions regarding the Total STSS score as detailed above.

Chapter 3 Results of Phase One: Quantitative

Sample Response Rate and Demographics

A total of 450 recruitment letters were mailed to a random sample of the 1,144 licensed providers with mailing addresses in Alaska. Of those 450 letters, 20 were returned as undeliverable and 12 providers responded to say that they were no longer practicing. Thirty-two follow-up and replacement letters (for undeliverable and non-practicing) were sent. In addition to the licensed providers, 14 recruitment letters were sent to all of the Behavioral Health Aides (BHAs) of a particular region in rural Alaska where permission had been granted by the necessary regional/tribal research board. The region is not being reported to protect the anonymity of those BHAs. While it was initially intended that BHAs working in all regions of Alaska would be recruited for participation, only one regional approval was secured within the timeline to complete this research. At end of data collection (four months after recruitment letters were sent), 225 licensed Mental Health Providers (MHPs) responded (a 50% response rate) and seven BHAs responded (also a 50% response rate). Table 6 presents the response rate by type of provider and type of community (urban/rural). The overall response rate for urban (47.08%) and rural (48.15%) MHPs was not significantly different, $\chi^2(2) = .01, p > .05$. Psychologists had the highest response rate (approximately 61%) and MFTs had the lowest (32%). The response rate for all other MHPs was between 45-50%. Henceforth, the licensed providers and BHAs are combined for statistical analysis and are referred to as MHPs.

Table 6

Percentage of Respondents by Type of License and Rural/ Urban Delineation

Type of License	Total Recruitment Letters Sent	Number of Letters Replaced[1]	Number of Responses	Response Rate
LCSW	**160**	**14**	**76**	**47.50%**
Urban	118	10	58	49.15%
Rural	42	4	18	42.86%
LPC	**183**	**14**	**84**	**45.90%**
Urban	138	12	65	47.10%
Rural	45	2	19	42.22%
LPA	**15**	**0**	**7**	**46.67%**
Urban	13	0	6	46.15%
Rural	2	0	1	50.00%
Temp. LPA	**1**	**0**	**0**	**0.00%**
Urban	1	0	0	0.00%
Rural	0	0	0	0.00%
MFT	**31**	**2**	**10**	**32.26%**
Urban	22	2	3	13.64%
Rural	8	0	7	87.50%
MFT Associate	**2**	**0**	**1**	**50.00%**
Urban	1	0	1	100.00%
Rural	1	0	0	0.00%
Psychologist	**54**	**2**	**33**	**61.11%**
Urban	43	2	26	60.47%
Rural	11	0	7	63.64%
Temp. Psychologist	**4**	**0**	**2**	**50.00%**
Urban	3	0	2	66.67%
Rural	1	0	0	0.00%
Unknown Respondents			12*	
Total Sent	**450**	**Total Responses**	**225**	**50.00%**
Total Urban[a]	342		161	47.08%
Total Rural[b]	108		52	48.15%
BHAs	**14**	**0**	**7**	**50.00%**

[1] Additional recruitment letters were sent to replace those who reported that they were not practicing and those letters that were returned as undeliverable.

[a] Urban is defined as Anchorage, Girdwood, the Matanuska-Susitna Valley (Chugiak, Eagle River, Palmer, Wasilla), Fairbanks, and Juneau.

[b] Rural is defined as all other areas.

* Respondents are unknown as they did not provide their assigned code in the survey and therefore the type of license under which they were recruited is unknown.

The participants' ages ranged from 20 to 81 years ($M = 51.08$, $SD = 11.52$). Sixty-eight percent of respondents reported being female, 31.6% male, and 0.4% "transgender or other." Most participants reported that their highest level of education was a Master's degree (74.3%), followed by a Doctoral degree (22.1%), some college (1.8%), a high school diploma or GED (0.9%), and a Bachelor's degree (0.9%). For those in urban areas (metropolitan and micropolitan) ($n = 164$), 76.2% had Master's degrees and 23.8% had Doctorates. For providers in rural areas ($n = 52$), 15.4% had less than Master's degrees, 63.5% had Master's degrees, and 21.2% had Doctorates.

On average, participants reported that they had worked as MHPs for 17.06 years since receiving their degree or certification ($SD = 9.82$), with a range from 1 to 58 years. They also reported an average of 12.16 years ($SD = 8.86$) providing services in their communities, with a range of five months to just over 40 years.

Participants were asked in what type of community they worked (urban, rural connected to the road/ferry system, or rural not connect to the road/ferry system). According to the self-reports of type of community: 70.0% of the sample reported working in an "urban" community, 15.0% reported working in areas that were "rural connected to the road system," 13.7% reported working in a community that was "rural not connected to the road or ferry system," and 1.3% reported working in more than one of these three types of communities.

Participants were also asked to give the zip code where they worked; this was used to determine the exact population of their community and determine how the U.S. Census Bureau defines their community. This allowed for the comparison of how they

perceive their community to what the U.S. Census Bureau considers to be metropolitan, micropolitan, and rural (U.S. Census Bureau, 2000). A map of metropolitan and non-metropolitan areas of Alaska is seen in Appendix A. Populations of participant communities was determined from the 2010 census, available on the Alaska Department of Labor and Workforce Development website (State of Alaska, 2012).

Respondents' community population size ranged from 156 to 291,826. The average population size was 137,205 (SD = 138,522). The exact population size was used in the majority of the hypothesis tests. The U.S. Census Bureau categorizes communities by population size (see Table 7 for types of communities). Overall, the self-reported type of communities in which the MHPs worked (urban, rural connected to the road/ferry system, rural not connected to the road/ferry system) and the U.S. Census Bureau's delineation of type of community (metropolitan, micropolitan, or rural), did not align well. A chi-square showed that how people define their community and how the U.S. Census Bureau divides types of communities differed significantly, $\chi^2(4) = 201.73, p < .001$. Examined across the types of community (whether by self-report or by the Census Bureau's definition) approximately 70% lived in urban areas and 30% lived in smaller types of communities. Interestingly, the Census bureau categorized more people as being in rural areas than did the MHPs themselves (see Table 7 for MHPs and the U.S. Census bureau defined communities).

Table 7

Type of Communities of the MHPs in the Sample

	Metropolitan	Micropolitan	Rural
Number (Percentage)[1]	147 (66.8%)	20 (9.1%)	53 (24.1%)
	Urban	Rural (connected to road/ferry system)	Rural (not connected to road/ferry system)
Number (Percentage)[2]	159 (71.0%)	34 (15.2%)	31 (13.4%)

[1] Percentage is based on the MHPs who reported the population of their communities
[2] Percentage is based on MHPs who reported in what type of community they feel they live/work

Determination and Prevalence of Secondary Trauma

After computing a Total STSS Score, and total Intrusion, Avoidance, and Arousal subscale scores, there are three criteria that can be used to determine whether or not an MHP is suffering from ST: (1) MHPs with Total STSS scores at or above 38 are considered as having ST, (2) MHPs who endorsed one or more items on the Intrusion subscale, three or more on the Avoidance subscale, and two or more on the Arousal subscale can be classified as having ST based on the PTSD criteria in the Diagnostic and Statistical Manual, and (3) compare MHP's Total STSS score to the normative scores as outlined in Bride's (2007) study and classify them as having "little or no" ST (scores $\leq$27), "mild" ST (scores 28-37), "moderate" ST (scores 38-44), "high" ST (scores 45-48), or "severe" ST (scores $\geq$49) (p. 67-68).

The mean Total STSS score for MHPs in this study was 32.27 (*SD* = 9.98). Scores ranged from 17 to 69 (out of a possible 17 to 85). The average Intrusion score (possible range of 5-25) was 8.79 (*SD* = 2.77). The average Avoidance score (possible

range of 7-35) was 13.61 (*SD* = 4.72). The average Arousal score (possible range of 5-25) was 9.80 (*SD* = 3.45).

Of the 231 participants who responded to all of the items needed to compute a Total STSS score, approximately 20% met criteria for PTSD from their work. Table 8 displays the percentage of MHPs who met and did not meet criteria for PTSD, Intrusion (one or more intrusion items endorsed), Arousal (two or more arousal items endorsed), and Avoidance (three or more avoidance items endorsed). According to the third criterion above, the largest proportion of scores (37.8%) fell in the "little to no" ST category, followed by 36.9% in the "mild" ST category (see Figure 1). The mean Total STSS score of 32.27 indicates that, according to this sample, on average Alaskan MHPs are experiencing "mild" ST, with 64% reporting at least some degree of ST. Nearly half of the MHPs in the sample reported symptoms of intrusion, 1 in 3 reported experiencing arousal symptoms, and 3 in 10 reported avoidance.

Table 8

Frequency of MHPs who Did and Did Not Meet Criteria for PTSD

	(Percent)	
	Met the Criteria	Did not Meet the Criteria
Experiences Intrusion[1]	47.6%	52.4%
Experiences Avoidance[2]	29.9%	70.1%
Experiences Arousal[3]	32.9%	67.1%
PTSD Criteria A[4]	18.6%	81.4%
PTSD Criteria B[5]	22.1%	77.9%

[1] Intrusion criteria met if one or more intrusion items endorsed
[2] Avoidance criteria met if three or more avoidance items
[3] Arousal criteria met if two or more arousal items endorsed
[4] PTSD criteria met by endorsing appropriate numbers of STSS items
[5] PTSD criteria met by having a total STSS score of greater than 38

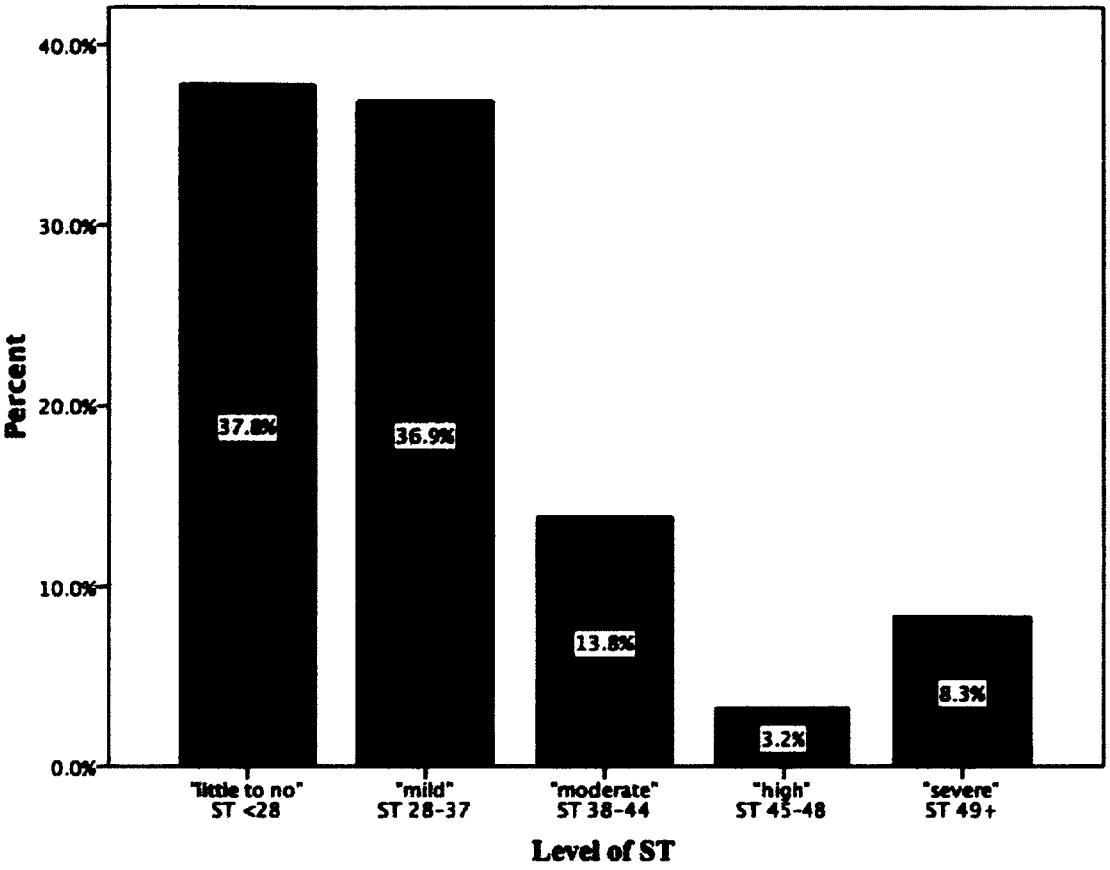

Figure 1. ST Levels

Hypothesis Testing

To test the 14 hypotheses outlined below, initial bivariate analyses were run and subsequent supplemental analyses were conducted. If the bivariate analyses were significant and the analysis was appropriate, mediator analyses were conducted. Finally, predictive models were created for Total STSS, Intrusion, Avoidance, and Arousal scores. Appendix J shows the complete correlation matrix for all variables.

Hypothesis 1: MHPs with higher levels of education will report less ST than those with less education.

Although in the anticipated direction, nonparametric correlational analyses (Spearman rho) revealed no significant relationships between level of education and STSS total and subscale scores [Total STSS, $\rho(211) = -.05, p = .253$; Intrusion $\rho(213) = -.08, p = .111$; Avoidance, $\rho(213) = -.01, p = .461$; Arousal $\rho(214) = -.07, p = .143$]. As so few individuals had an education level below a Master's degree ($n = 8$), they were combined and one-way ANOVAs were conducted to examine potentially non-linear patterns in mean STSS total and subscale scores between respondents with: (1) less than a Master's degree, (2) a Master's degree, and (3) a Doctoral degree.

There were no significant differences amongst these three groups on their total STSS [$F(2, 210) = .81, p = .448, \eta_p^2 = .008$]. A MANOVA with the three subscale scores as dependent variables and level of education as the independent variable was also not statistically significant [$F(6, 418) = .81, p = .566, \eta_p^2 = .011$] (see Table 9).

Table 9

Means and Standard Deviations for ST Scores by Degree

	M (SD)		
	Less than Master's Degree	Master's Degree	Doctoral Degree
Total STSS[a]	29.63 (11.80) (n = 8)	32.70 (9.89) (n = 156)	31.02 (9.91) (n = 49)
Intrusion[b]	8.13 (2.59) (n = 8)	8.91 (2.72) (n = 156)	8.37 (2.94) (n = 49)
Avoidance[c]	12.63 (6.05) (n = 8)	13.70 (4.66) (n = 157)	13.32 (4.65) (n = 50)
Arousal[d]	8.88 (3.64) (n = 8)	10.04 (3.48) (n = 158)	9.16 (3.33) (n = 50)

[a] ANOVA not significant (p = .448)
[b] ANOVA not significant (p = .399)
[c] ANOVA not significant (p = .747)
[d] ANOVA not significant (p = .217)

While the average scores in the above table did not differ significantly, it is important to note that these scores are still somewhat elevated. The total STSS Score ranges from 17-85 (Intrusion from 5-25, Avoidance from 7-35, Arousal from 5-25). A score on the Total STSS between 28-37 (as for all groups above) is considered "mild" ST. Table 10 shows what percentage of MHPs did and did not meet PTSD criterion (as calculated in two ways) based on education level. There were no significant differences between the three education levels on who met PTSD criteria by: (1) having a total STSS score greater than 38 [χ^2 (2) = .26, p = .878], or (2) by endorsing the appropriate numbers of STSS items [χ^2 (2) = .59, p = .743].

Table 10

Frequency of MHPs Who Do and Do Not Meet PTSD Criteria by Education Level

	N (Percent)			
	Meets PTSD Criteria A[1]		Meets PTSD Criteria B[2]	
	Yes	No	Yes	No
Less than Master's Degree	1 (0.4%)	7 (3.1%)	2 (0.9%)	6 (2.7%)
Master's Degree	33 (14.7%)	134 (59.6%)	35 (15.6%)	132 (58.7%)
Doctoral Degree	8 (3.6%)	42 (18.7%)	12 (5.3%)	38 (16.9%)

[1] PTSD criteria met by endorsing appropriate numbers of STSS items; no significant difference amongst groups (p=.743)
[2] PTSD criteria met by having a total STSS score of greater than 38; no significant difference amongst groups (p=.878)

Hypothesis 2: MHPs who work in rural locations will report more ST than those who work in urban areas.

The relationship between type of community and ST scores was examined in two ways: (1) correlations between MHP community population size and ST scores and (2) ANOVAs that examined ST scores by how MHPs categorized their community (urban vs. rural connected to the road/ferry system vs. rural not connected to the road/ferry system). There were significant negative correlations between community size and all types of ST; those in smaller communities scored significantly higher on Total STSS [$r(206) = -.19, p = .003$], Intrusion [$r(208) = -.13, p = .032$], Avoidance [$r(208) = -.18, p = .005$], and Arousal [$r(209) = -.18, p = .004$] scores than those in larger communities (see Figures 2, 3, 4, and 5 for scatterplots). However, one-way ANOVAs revealed no

significant differences in Total STSS [$F(2, 209) = 1.19, p = .307, \eta_p^2 = .011$], Intrusion [$F(2, 211) = .62, p = .541, \eta_p^2 = .006$], Avoidance [$F(2, 211) = 1.30, p = .275, \eta_p^2 = .012$], or Arousal scores [$F(2, 212) = 1.29, p = .279, \eta_p^2 = .012$] between MHPs' self-reported type of community (see Table 11 for means and standard deviations).

Table 11

Means and Standard Deviations for ST Scores by MHPs' Self-Reported Community Type

	M (SD)		
	Urban	Rural Connected to Road/Ferry System	Rural Not Connected to Road/Ferry System
Total STSS[a]	31.72 (10.06) ($n = 151$)	32.87 (8.07) ($n = 31$)	34.70 (10.99) ($n = 30$)
Intrusion[b]	8.67 (2.78) ($n = 152$)	9.00 (2.78) ($n = 32$)	9.23 (2.69) ($n = 30$)
Avoidance[c]	13.32 (4.68) ($n = 153$)	14.00 (3.98) ($n = 31$)	14.77 (5.47) ($n = 31$)
Arousal[d]	9.61 (3.55) ($n = 154$)	9.94 (2.49) ($n = 31$)	9.81 (3.44) ($n = 30$)

[a] No significant differences amongst groups (p = .307)
[b] No significant differences amongst groups (p = .541)
[c] No significant differences amongst groups (p = .275)
[d] No significant differences amongst groups (p = .279)

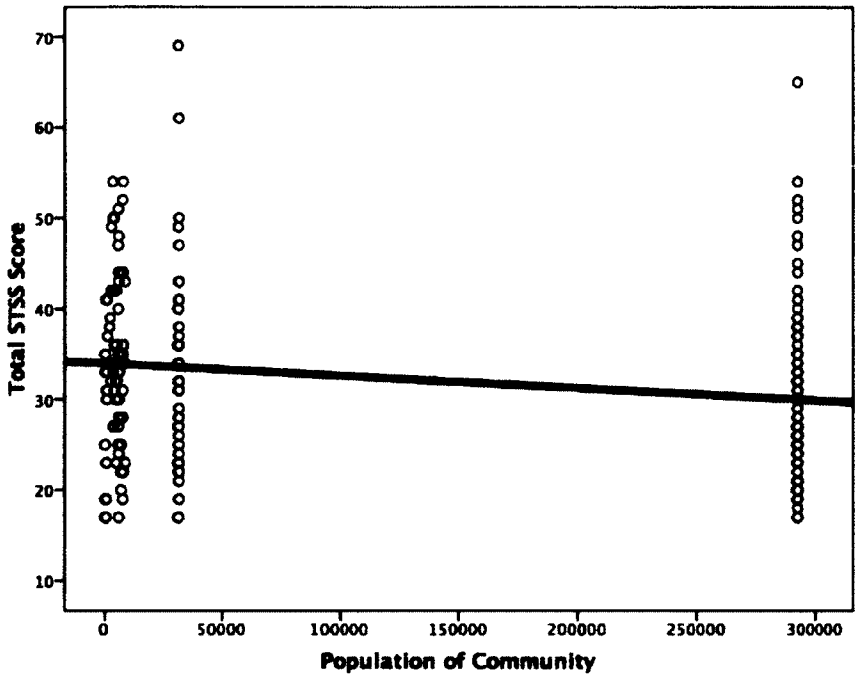

Figure 2. Total STSS Score by Population of Community

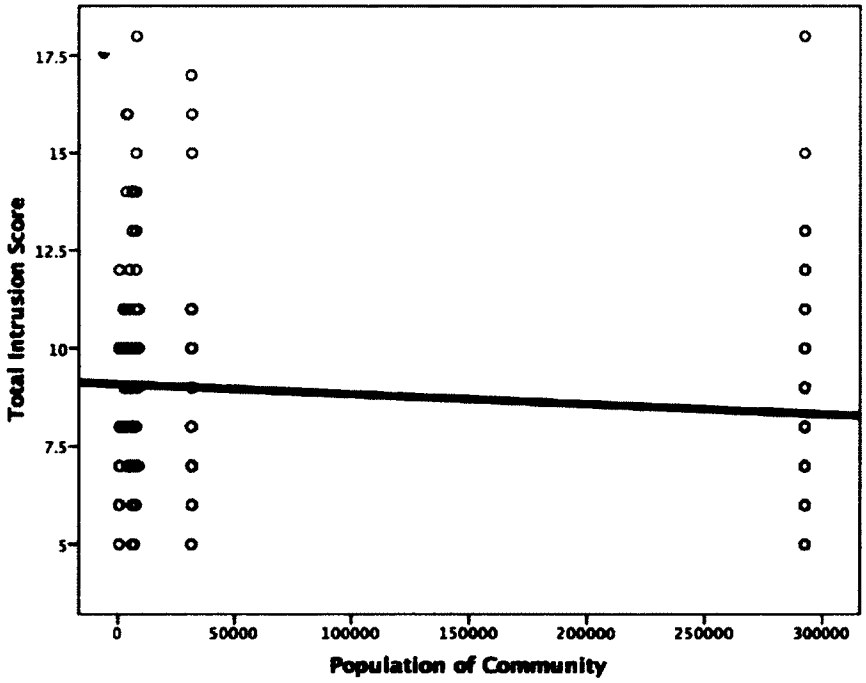

Figure 3. Total Intrusion Score by Population of Community

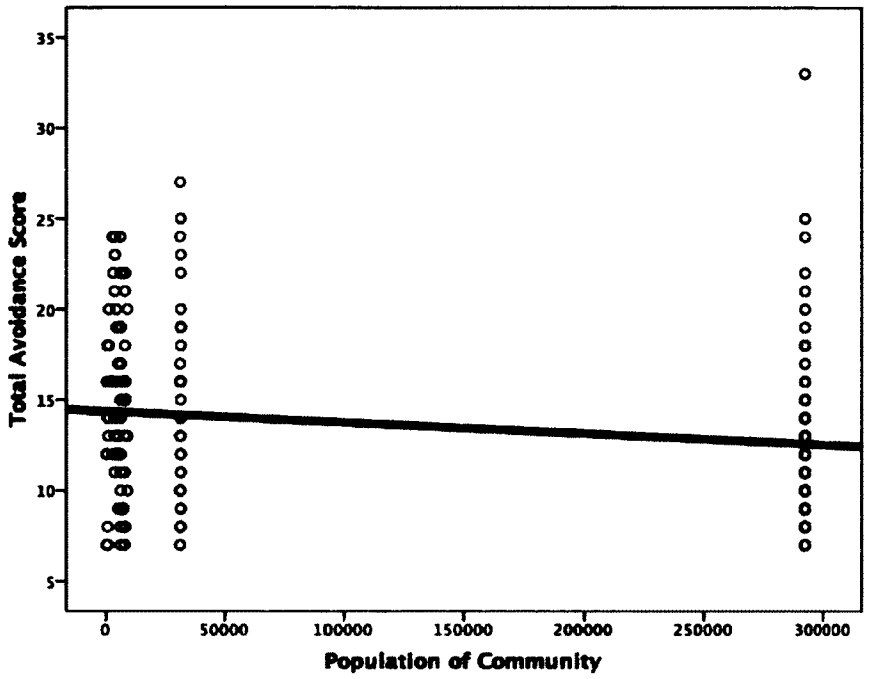

Figure 4. Total Avoidance Score by Population of Community

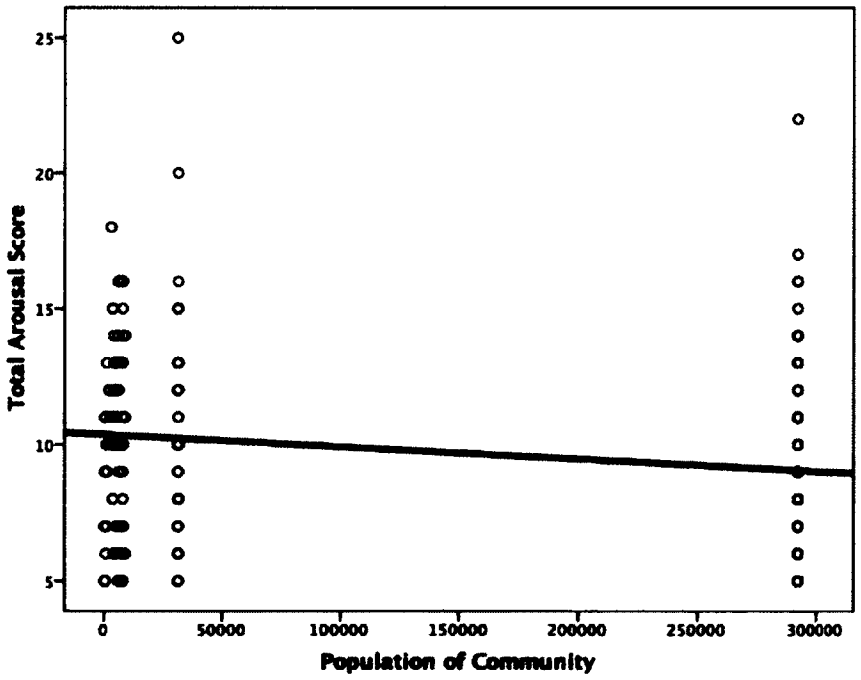

Figure 5. Total Arousal Score by Population of Community

The means for all four ST scores were only slightly higher for rural providers. Figure 6 displays where providers fall on the continuum of "little or no" ST (scores ≤27), "mild" ST (scores 28-37), "moderate" ST (scores 38-44), "high" ST (scores 45-48), "severe" ST (scores ≥49) by their self-reported type of community. Table 12 displays the number and percent of who met PTSD criteria by type of community.

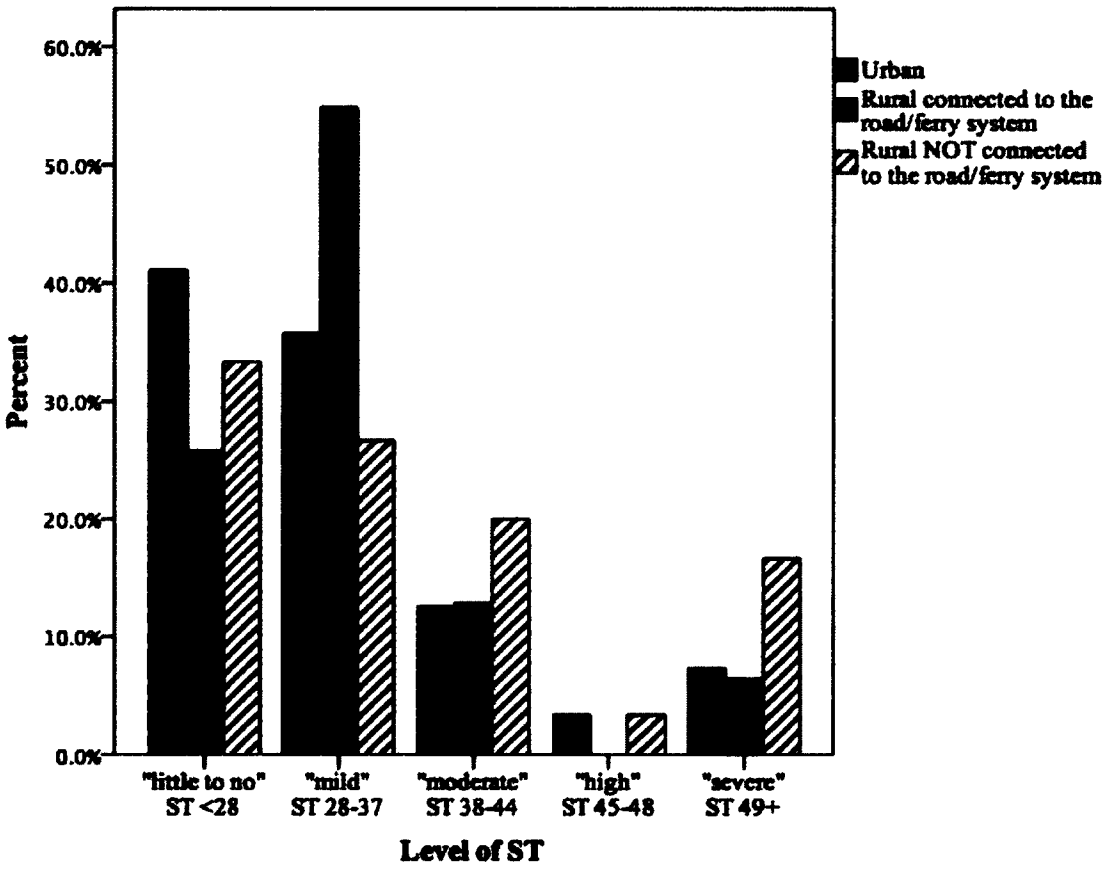

Figure 6. Level of ST by Type of Community

Table 12

Frequency and Percent of MHPs Who Do and Do Not Meet PTSD Criteria by Type of Community

	N (Percent)			
	Meets PTSD Criteria A[1]		Meets PTSD Criteria B[2]	
	Yes	No	Yes	No
Urban	25 (11.2%)	134 (59.8%)	32 (14.3%)	127 (56.7%)
Rural Connected to the Road/Ferry System	5 (2.2%)	29 (12.9%)	6 (2.7%)	28 (12.5%)
Rural Not Connected to the Road/Ferry System	11 (4.9%)	20 (8.9%)	12 (5.4%)	19 (8.5%)

[1] PTSD criteria met by endorsing appropriate numbers of STSS items
[2] PTSD criteria met by having a total STSS score of greater than 38

Hypothesis 3: (a) Rural MHPs will provide more services to individuals they have known prior to therapy and (b) MHPs who provide services to people previously known will experience more ST.

Of the respondents, 23.9% have provided services to a family member, 31.3% to a friend, 41.9% to a long-term acquaintance, and 64.5% to a casual acquaintance.

Rural providers treating someone known prior to therapy (3a). In support of Hypothesis 3a, MHPs who had treated a family member [$t(88.12) = 1.76, p = .041, d = .37$], a friend [$t(137.27) = 4.51, p < .001, d = .77$], a long-term acquaintance [$t(194.86) = 4.36, p < .001, d = .62$], and a casual acquaintance [$t(206) = 4.46, p < .001, d = .62$] lived in significantly smaller communities (as measured by population size) than those who had not treated family, friends, or acquaintances (see Table 13 for means and standard deviations of the populations).

Table 13

Average Community Population Size for MHPs Who Have Treated Someone Known Prior to Therapy

M (SD)							
Family Member[a]		Friend[b]		Long-Term Acquaintance[b]		Casual Acquaintance[b]	
Yes	No	Yes	No	Yes	No	Yes	No
106,425 (132,857)	144,468 (139,059)	76,505 (120,551)	161,984 (138,023)	88,945 (123,822)	168,881 (138,786)	150,429 (131,248)	190,881 (134,317)
(*n* = 51)	(*n* = 158)	(*n* = 64)	(*n* = 144)	(*n* = 86)	(*n* = 122)	(*n* = 134)	(*n* = 74)

[a] Population significantly lower for "yes" respondents (p = .041)
[b] Population significantly lower for "yes" respondents (p < .001)

Additional analyses were conducted to test Hypothesis 3a. A series of 2 x 2 chi-square tests of association (two-tailed) examined whether rural and urban (by U.S. Census Bureau definition) providers differed in terms of their likelihood of reporting that they had treated a family member, a long-term acquaintance, a friend, and a casual acquaintance. Rural providers were significantly more likely to have treated a friend [$\chi^2(1) = 17.84, p < .001$] or a casual acquaintance [$\chi^2(1) = 8.71, p = .003$] than urban providers, further supporting Hypothesis 3a. They were not, however, more likely to have treated a family member [$\chi^2(1) = 1.58, p = .209$] or a long-term acquaintance [$\chi^2(1) = 1.90, p = .168$].

Most of the same pattern held when MHPs' self-reported type of community was examined. Like the U.S. Census' division of type of community, rural providers were significantly more likely to state that they had treated a friend [$\chi^2(1) = 18.10, p < .001$] and a casual acquaintance [$\chi^2(1) = 11.27, p = .001$] than urban providers, but not a family member [$\chi^2(1) = 2.16, p = .142$]. However, unlike the U.S. Census Bureau's division,

rural providers (as self-defined) were more likely to have treated a long-term acquaintance [$\chi^2(1) = 5.16, p = .023$] as well. As seen in Table 14, no matter how urban and rural was delineated, more rural providers reported having treated all four types of people previously known than urban providers.

Table 14

Percentage of Urban and Rural MHPs who Have Treated Four Types of People They Knew Prior to Therapy

	Percentage of MHPs							
	Family Member		Friend		Long-Term Acquaintance		Casual Acquaintance	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
U.S. Census Bureau	31.4% (*n*=18)	22.6% (*n*=36)	54.9% (*n*=28)	23.4% (*n*=37)	50.0% (*n*=25)	39.0% (*n*=62)	82.0% (*n*=41)	59.1% (*n*=94)
Self-Report	30.6% (*n*=19)	21.2% (*n*=32)	51.6% (*n*=32)	22.0% (*n*=33)	54.1% (*n*=33)	37.1% (*n*=56)	82.0% (*n*=50)	57.6% (*n*=87)

Treating someone known prior to therapy and ST (3b). To test Hypothesis 3b, a series of t-tests with Total STSS score and MANOVAs on the three subscales (Intrusion, Avoidance, Arousal) were run with the ST scores as the dependent variables (see Table 15 for all means and standard deviations).

Those who reported treating at least one family member did not have significantly higher ST scores [$t(210) = -.81, p = .211, d = .11$]. A MANOVA also revealed no significant differences on the three subscales between those who have and have not treated a family member [$F(3, 208) = .62, p = .605, \eta_p^2 = .009$]. Those who have treated a friend also did not experience a higher Total STSS score [$t(209) = -1.33, p = .093, d =$

.18] than those who have not. Nor were there differences between those who have and have not treated a friend on the three subscale scores [$F(3, 207) = .66, p = .579, \eta_p^2 = .009$].

Those who treated a long-term acquaintance scored significantly higher on Total STSS [$t(209) = -3.57, p < .001, d = .49$]. The MANOVA on the three subscales was significant [$F(3, 207) = 4.45, p = .003, \eta_p^2 = .066$]. Because the t-test on the Total STSS score was significant, univariate tests on the three subscales were run in addition to the MANOVA. The t-tests revealed that those who have treated a long-term acquaintance had significantly higher subscale scores: Intrusion, [$t(211) = -3.49, p < .001, d = .48$], Avoidance [$t(211) = -2.92, p = .002, d = .40$], and Arousal [$t(212) = -3.34, p < .001, d = .46$].

Those who treated a casual acquaintance showed the same pattern; they scored significantly higher on Total STSS [$t(209) = -2.34, p = .010, d = .32$] although the MANOVA on the three subscales was not significant [$F(3, 207) = 1.98, p = .119, \eta_p^2 = .028$]. Because the t-test on the Total STSS score was significant, univariate tests on the three subscales were run in addition to the MANOVA. The t-tests revealed that those who have treated a casual acquaintance had significantly higher subscale scores: Intrusion, [$t(211) = -1.77, p = .039, d = .24$], Avoidance [$t(211) = -1.98, p = .025, d = .27$], and Arousal [$t(212) = -2.27, p = .012, d = .31$]. Table 15 displays this pattern; treating some types of people previously known (long-term and casual acquaintances) is associated with higher ST scores.

Table 15

Average ST Scores for MHPs by Whether or Not They Have Treated People They Have Known Prior to Therapy

	M (SD)							
	Family Member[a]		Friend[b]		Long-Term Acquaintance[c]		Casual Acquaintance[d]	
	Yes	No	Yes	No	Yes	No	Yes	No
Total STSS	33.40 (9.82)	32.12 (10.04)	33.78 (9.92)	31.81 (10.02)	35.16 (10.35)	30.30 (9.29)	33.52 (10.67)	30.19 (9.59)
	(*n*=52)	(*n*=160)	(*n*=67)	(*n*=144)	(*n*=89)	(*n*=122)	(*n*=136)	(*n*=75)
Intrusion	9.21 (2.67)	8.70 (2.79)	9.09 (2.67)	8.71 (2.82)	9.56 (2.75)	8.25 (2.65)	9.05 (2.79)	8.36 (2.67)
	(*n*=52)	(*n*=160)	(*n*=67)	(*n*=146)	(*n*=90)	(*n*=123)	(*n*=137)	(*n*=76)
Avoidance	13.98 (4.41)	13.60 (4.81)	14.42 (4.90)	13.38 (4.61)	14.73 (4.78)	12.85 (4.54)	14.10 (4.69)	12.77 (4.66)
	(*n*=52)	(*n*=160)	(*n*=67)	(*n*=146)	(*n*=90)	(*n*=123)	(*n*=138)	(*n*=75)
Arousal	10.21 (3.54)	9.71 (3.45)	10.27 (3.26)	9.62 (3.56)	10.73 (3.79)	9.15 (3.09)	10.22 (3.56)	9.09 (3.23)
	(*n*=52)	(*n*=160)	(*n*=67)	(*n*=146)	(*n*=91)	(*n*=123)	(*n*=139)	(*n*=75)

[a]No significant differences between group on STSS ($p = .211$), Intrusion/Avoidance/Arousal MANOVA ($p = .605$)
[b]No significant differences between groups on STSS ($p = .093$), Intrusion/Avoidance/Arousal MANOVA ($p = .579$)
[c]Significant differences between groups on STSS ($p < .001$), Intrusion/Avoidance/Arousal MANOVA ($p = .003$)
[d]Significant differences between groups STSS ($p = .010$), Intrusion/Avoidance/Arousal MANOVA ($p = .119$) however *t*-values were significant

Mediation Analysis. A new composite variable was created combining the four yes/no variables of having treated a family member, friend, casual acquaintance, or long-term acquaintance. The new variable of treating someone the MHP knew prior to therapy was coded as 0 to 4 representing how many types of people known before treatment that they have ever subsequently treated. This new variable was significantly associated with Total STSS score [$r(211) = .19, p = .001$].

To test whether or not (a) the effect of MHPs treating someone they previously

knew (b) mediates the effect of population size on Total STSS score, a mediation analysis based on the procedures outlined by Baron and Kenny (1986) was conducted. The four steps are as follows: (1) examine if the first variable (population size) is significantly associated with the dependent variable (Total STSS score); (2) examine if the hypothesized mediator variable (treating people previously known) is significantly associated with the dependent variable (Total STSS score); (3) examine if the mediator variable influences the dependent variable while controlling for the first predictor variable; and (4) reverse step three and control for the mediator variable while examining the relationship between the first predictor and dependent variable. The mediator completely mediates the relationship between the first predictor and the dependent variable if the relationship between the first predictor and the dependent variable drops to zero in Step 4. If all the first three steps are met but not Step 4, the mediator variable is said to be partially mediating the relationship between the first predictor and the dependent variable (Baron & Kenny, 1986).

Using this four-step procedure, the analysis revealed that treating people previously known partially mediates the relationship between population size and Total STSS score. Step 1 supported that population size accounted for a significant portion of variability in Total STSS score [$R^2 = .04$, adj. $R^2 = .03$, $F(1, 206) = 9.86$, $p = .006$]. Step 2 found that treating people known prior to therapy accounted for a significant amount of variability in Total STSS score [$R^2 = .04$, adj. $R^2 = .03$, $F(1, 211) = 7.61$, $p = .006$]. To test Step 3, a hierarchical multiple regression analysis was conducted where community population size was entered as the first step and the composite variable of treating people

previously known was entered on the second step. Table 16 (below) shows that adding treating someone known prior to therapy to the initial model for community population size partially mediates the effect of treating someone previously known on Total STSS score. Table 16 below outlines that while treating someone previously known accounts for 3% of the variability in Total STSS score, adding population to the model explains only an additional 2% of the variability in STSS score.

Step 4 reversed Step 3 by adding community population size to the regression model for treating someone previously known, which allowed for the examination of full mediation; if the model was non-significant it would have indicated that treating someone previously known completely mediated the effects of population size on Total STSS score. However, the model remained significant in this fourth step, which means that treating someone previously known does not completely mediate the effects of population size.

Table 16

Step Three: Effects of Population of Community When Treating People Previously Known is Controlled – Total STSS as Dependent Variable

Predictor	R	R^2	Adjusted R^2	ΔR^2	F	df	p
Population	.18	.03	.03	.03	6.97	1, 202	.009
Treating someone previously known	.22	.05	.04	.01	3.81	1, 201	.095

Hypothesis 4: (a) MHPs in rural communities will report higher frequencies of encountering clients outside of work more than urban providers and (b) those MHPs who do encounter clients more frequently in the community will report more ST.

Encountering clients outside of work (4a). Overall, MHPs reported interacting with clients or family members of clients outside of work an average of 129.67 times per year (*SD* = 379.33). The population size of the communities in which MHPs worked was significantly negatively correlated with the frequency with which they interacted with clients in the community, $r(213) = -.21$, $p = .001$, supporting Hypothesis 4a with MPHs in smaller communities reporting more contact.

Again supporting the hypothesis, when divided by Census Bureau definition, rural providers interacted with clients (*M* = 301.75, *SD* = 722.91) significantly more (more than twice as often) than urban providers (*M* = 78.44, *SD* = 142.18), [$t(52.26) = -2.21$, $p = .031$, $d = .61$]. This was also true when type of community was divided by the MHPs' definition, with rural providers interacted with clients (*M* = 278.71, *SD* = 662.12) significantly more than urban providers (*M* = 66.41, *SD* = 131.14), [$t(63.97) = -2.53$, $p = .007$, $d = .63$].

Encountering clients and ST (4b). Hypothesis 4b was not supported as frequency of interacting with clients outside of work was not positively correlated with any of the ST scores; Total STSS [$r(215) = -.02$, $p = .203$], Intrusion [$r(217) = .00$, $p = .238$], Avoidance [$r(217) = -.03$, $p = .179$], or Arousal [$r(218) = -.01$, $p = .219$]. So while providers in smaller communities certainly encounter clients more often, this does not

add to ST.

Those who met PTSD criteria by: (1) endorsing the appropriate number of items [$t(222) = -.15, p = .441, d = .02$] or by (2) having a Total STSS score of above 38 [$t(222) = -.21, p = .419, d = .03$] did not encounter clients outside of work significantly more than those who did not meet these criteria (see Table 17).

Table 17

Frequency of Encountering Clients or Family Members of Clients Outside of Work per Year

	M (SD)			
	Meets PTSD Criteria A[1]		Meets PTSD Criteria B[2]	
	Yes	No	Yes	No
Average Times Interacting with Clients Outside of Work	137.49 (156.40)	127.82 (415.38)	139.29 (157.06)	126.84 (423.49)

[1] PTSD criteria met by endorsing appropriate numbers of STSS items; no significant difference between "yes" and "no" ($p = 441$)

[2] PTSD criteria met by having a total STSS score of greater than 38; no significant difference between "yes" and "no" ($p = 419$)

Hypothesis 5: (a) MHPs who have had longer and shorter careers providing services will report more ST than those in mid-career in providing services and (b) MHPs who have been in their communities for longer and shorter periods will report more ST than those at a mid-level of time.

The average time the MHPs in this study spent providing services after receiving their degree or certification was 17.06 years ($SD = 9.82$ years). The average time spent proving services in their current community was 12.16 years ($SD = 8.86$ years).

Time as a MHP (5a). A regression analysis to test for a curvilinear (quadratic) relationship between career length and total ST was not statistically significant [$R^2 = .00$,

adj. R^2 = .00, $F(2, 211) = 0.13$, p = .880]. Tests for linear relationship between total time as an MHP and Total STSS [$r(210) = -.03$, p = .350], Intrusion [$r(212) = -.05$, p = .249], Avoidance [$r(212) = -.04$, p = .280], or Arousal scores [$r(213) = -.02$, p = .402] were also not statistically significant. Therefore, Hypothesis 5a was not supported.

Time in communities (5b). A regression analysis to test for a curvilinear (quadratic) relationship between length of time providing services in one's community and Total STSS score was also not statistically significant [R^2 = .00, adj. R^2 = .00, $F(2, 21) = 1.02$, p = 364]. However, tests for linear relationships produced different findings. Contradictory to Hypothesis 5b, there were significant negative correlations between time providing service in one's community and Total STSS Score [$r(213) = -.12$, p = .043], Avoidance [$r(215) = -.13$, p = .030], and Arousal [$r(216) = -.12$, p = .039], but not for Intrusion [$r(215) = -.10$, p = .072] (see Figures 7, 8, 9, and 10 for scatterplots). This suggests that it is those who have spent longer in their communities, but not in the field as a whole, who are experiencing less ST symptoms.

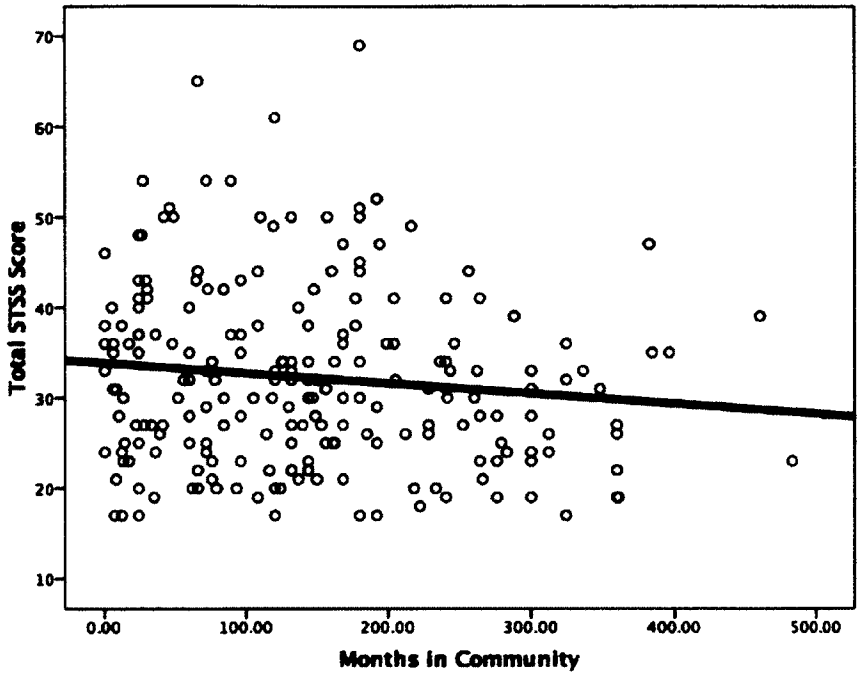

Figure 7. Total STSS Score by Months Providing Services in Community

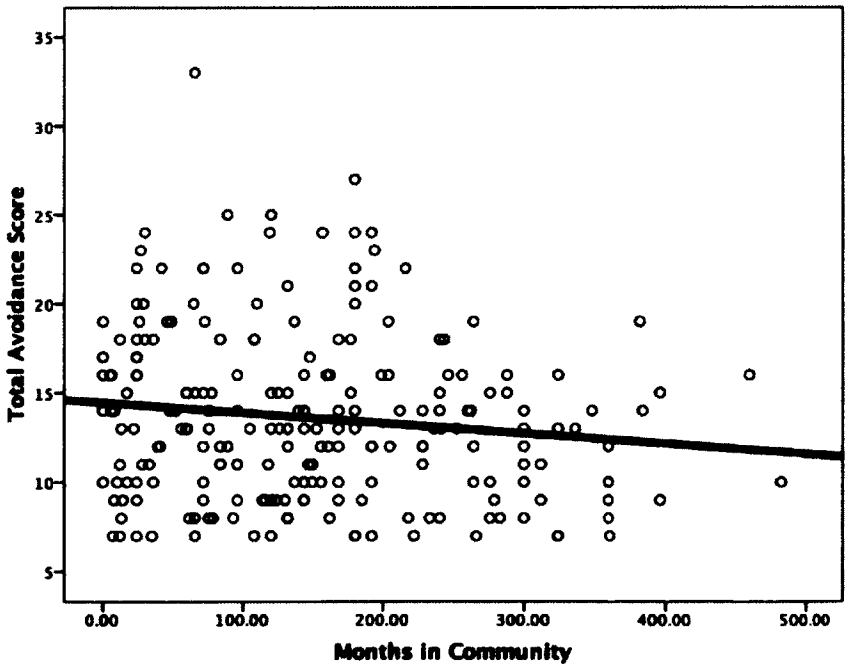

Figure 8. Total Avoidance Score by Months Providing Services in Community

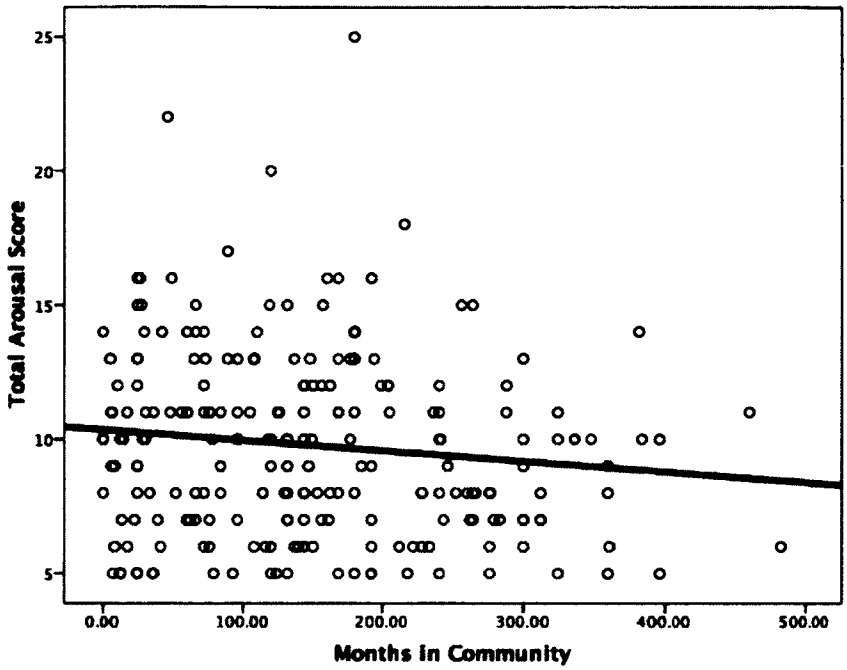

Figure 9. Total Arousal Score by Months Providing Services in Community

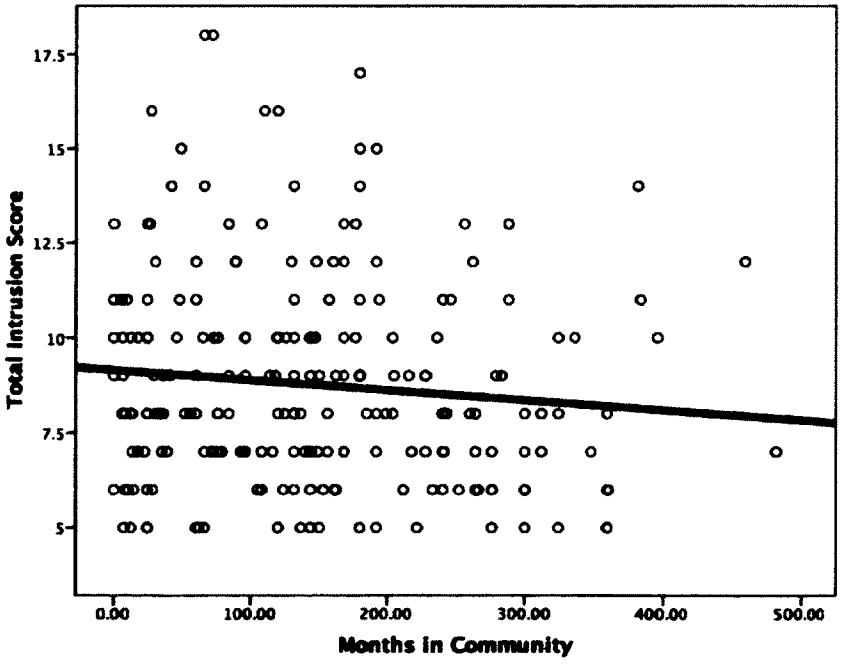

Figure 10. Total Intrusion Score by Months Providing Services in Community

Supplemental Analyses. There was no significant difference between urban (metropolitan and micropolitan; $M = 17.12$, $SD = 9.07$) and rural ($M = 17.28$, $SD = 12.41$) providers regarding their total time as a MHP [$t(65.65) = -.08$, $p = .934$, $d = -.02$ (two-tailed)] or time providing services in their current communities [$t(217) = 1.24$, $p = .217$, $d = .17$ (two-tailed); (urban $M = 12.63$, $SD = 8.71$; rural $M = 10.89$, $SD = 9.42$)].

The same pattern held when type of community was assessed by the MHPs definitions. Urban MHPs ($M = 17.07$, $SD = 9.10$) and rural MHPs (connected and not connected to the road/ferry system; $M = 16.86$, $SD = 11.50$) did not differ significantly on their total time as an MHP in their community [$t(217) = -.14$, $p = .889$, $d = .02$ (two-tailed)] or time providing services in their current communities [$t(220) = 1.15$, $p = .082$, $d = .24$ (two-tailed); (urban $M = 12.91$, $SD = 8.72$; rural $M = 10.64$, $SD = 9.08$)].

Hypothesis 6: MHPs who spend (a) more hours per week and (b) a higher percentage of their time providing direct client services will report more ST than those who spend less time providing direct client services.

Participants were asked how many hours per week they spend providing individual, family, or group therapy ($M = 19.05$, $SD = 13.45$). They were also asked what percentage of their work during the week was spent providing direct face-to-face client services ($M = 52.58$, $SD = 32.10$).

Spending more hours per week providing direct client care was not significantly correlate with ST scores [Total STSS score, $r(214) = -.04$, $p = .279$; Intrusion $r(216) = -.07$, $p = .150$; Avoidance, $r(216) = .01$, $p = .456$; Arousal $r(217) = -.05$, $p = .247$] as predicted in Hypothesis 6a. In contradiction to Hypothesis 6b, there were significant

negative correlations between percentage of work week providing direct client care and Total STSS [$r(213) = -.17, p = .008$], Intrusion [$r(215) = -.14, p = .017$], Avoidance [$r(215) = -.14, p = .019$], and Arousal score [$r(216) = -.13, p = .027$]. It appears that providers who spend a larger percentage of their time providing direct client care are actually experiencing less ST symptoms or they may be spending a smaller percentage of time in direct client care as a result of experiencing higher ST.

Respondents who met full PTSD criteria by endorsing the appropriate number of STSS items did not report spending significantly more time than those who did not meet the PTSD criteria providing direct client services in either total hours [$t(226) = .39, p = .347, d = .05$] or percentage of their work week spent providing direct client care [$t(225) = 1.59, p = .057, d = .21$] (see Table 18 for means and standard deviations). Those who met PTSD criteria by having a Total STSS score of greater than 38 also did not spend significantly more time providing direct client services in total hours [$t(226) = .42, p = .339, d = .06$]. Percentage of work week spent providing direct client care and this PTSD criteria was marginally significant [$t(225) = 1.57, p = .059, d = .21$], and did align with the positive correlations between ST scores and percentage of work spent in direct client care (see Table 18 for means and standard deviations).

Table 18

Time Spent in Direct Client Care for MHPs who Did and Did Not Meet Criteria for PTSD

	M (SD)			
	Meets PTSD Criteria A[1]		Meets PTSD Criteria B[2]	
	Yes	No	Yes	No
Hours per Week in Direct Client Care	18.33 (12.35)	19.22 (13.72)	18.36 (12.56)	19.25 (13.72)
Percentage of Work Week in Direct Client Care	45.60 (27.69)	54.21 (32.90)	46.39 (30.39)	54.37 (32.44)

[1] PTSD criteria met by endorsing appropriate numbers of STSS items; no significant difference between "yes" and "no" in hours ($p = .347$) or percentage ($p = .057$)
[2] PTSD criteria met by having a total STSS score of greater than 38; no significant difference between "yes" and "no" in hours ($p = .339$) or percentage ($p = .059$)

Hypothesis 7: MHPs who spend more time providing clinical services to persons who have experienced a trauma will report more ST than those who spend less time providing services to such clients.

Overall, the MHPs in Alaska reported spending an average of 16.48 hours per week providing trauma-related services. There were no significant correlations between the hours per week spent providing trauma-related therapeutic services and the total or subscale ST scores [Total STSS, $r(214) = -.01, p = .435$; Intrusion $r(216) = -.07, p = .165$; Avoidance, $r(216) = .03, p = .356$; Arousal $r(217) = .00, p = .492$] (see Table 19 for hours spent providing trauma care by those who met PTSD criteria).

Supplemental analyses. There was no correlation between an MHP's community population size and hours per week spent providing trauma care [$r(216) = .00, p = .450$]. However, urban providers, as defined by the U.S. Census Bureau spent significantly more

hours per week proving such care (M = 17.43, SD = 20.34) than rural providers (M = 12.13, SD = 11.54), [t(157.51) = 2.37, p = .010, d = .38]. The same pattern held when rural and urban was divided by self-report of type of community, with urban providers (M = 17.20, SD = 20.37) spending significantly more time proving such care than rural providers (M = 13.49, SD = 11.96), [t(194.82) = 1.69, p = .047, d = .24].

Table 19

Time Spent in Direct Client Care for MHPs who Did and Did Not Meet Criteria for PTSD

	M (SD)			
	Meets PTSD Criteria A[1]		Meets PTSD Criteria B[2]	
	Yes	No	Yes	No
Hours per Week Providing Trauma-Related Therapy	20.48 (24.48)	15.55 (17.43)	16.93 (17.26)	16.35 (19.58)

[1] PTSD criteria met by endorsing appropriate numbers of STSS items
[2] PTSD criteria met by having a total STSS score of greater than 38

Hypothesis 8: MHPs who have a similar trauma history to their clients will report more ST than those who do not share such a history with clients.

The majority of the participants (58.5%) reported having a similar trauma history as at least one client they have treated. For those MHPs with a similar trauma history, they reported that they have treated an average of 91 clients (SD = 386) for an average of 695 sessions (SD = 2,986) with clients with a similar trauma history. They also reported that they have treated a client with a similar trauma history an average of five times (SD = 15) in past 30 days.

Those who reported treating individuals with a similar trauma history had significantly higher Total STSS scores than those who did not, t(204.98) = -1.70, p =

.045, $d = .24$. A MANOVA with the three subscales as dependent variables showed no significant differences between those who have and have not treated someone with a similar trauma history, $F(3, 213) = .48, p = .693, \eta_p^2 = .007$]. See Table 20 for means and standard deviations.

Table 20

Average ST Scores for MHPs With and Without a Similar Trauma History to a Client They Have Treated

	M (SD)	
	Similar Trauma History	
	Yes	No
Total STSS[1]	33.36 (10.77) (n=124)	31.08 (8.68) (n=87)
Intrusion[2]	8.95 (3.01) (n=124)	8.64 (2.41) (n=89)
Avoidance[3]	14.16 (5.06) (n=126)	13.00 (4.10) (n=87)
Arousal[4]	10.11 (3.74) (n=126)	9.44 (3.05) (n=88)

[1] Significant difference between "yes" and "no" one-tailed t-test ($p = .045$)
[2] No significant difference between "yes" and "no" one-tailed t-test ($p = .210$)
[3] Significant difference between "yes" and "no" one-tailed t-test ($p = .039$)
[4] No significant difference between "yes" and "no" one-tailed t-test ($p = .084$)

Supplemental analyses. There was no significant difference between those who have and have not treated someone with a similar trauma history based on location (urban versus rural) by U.S. Census Bureau [$\chi^2 (1) = .18, p = .672$] or by MHPs self-reported type of community [$\chi^2 (1) = .51, p = .475$] (see Table 21). There was also no significant difference on whether someone treated a client with a similar trauma history when population size was used as the dependent variable [$t(186.32) = 1.35, p = .090, d = .20$].

See Figure 11 for levels of ST by MHPs who have treated a client with a similar trauma history.

Table 21

MHPs Who Have and Have Not Treated a Client With a Similar Trauma History by Location

	Percentages			
	U.S. Census Definition[1]		MHPs Definition[2]	
Treatment of Someone with a Similar Trauma History	Rural	Urban	Rural	Urban
Yes	60.0% (*n*=30)	56.6% (*n*=90)	62.3% (*n*=38)	57.0% (*n*=86)
No	40.0% (*n*=20)	43.4% (*n*=69)	37.7% (*n*=23)	43.0% (*n*=65)

[1] Significant difference between "yes" and "no" two-tailed chi-square ($p = .672$)
[2] Significant difference between "yes" and "no" two-tailed chi-square ($p = .475$)

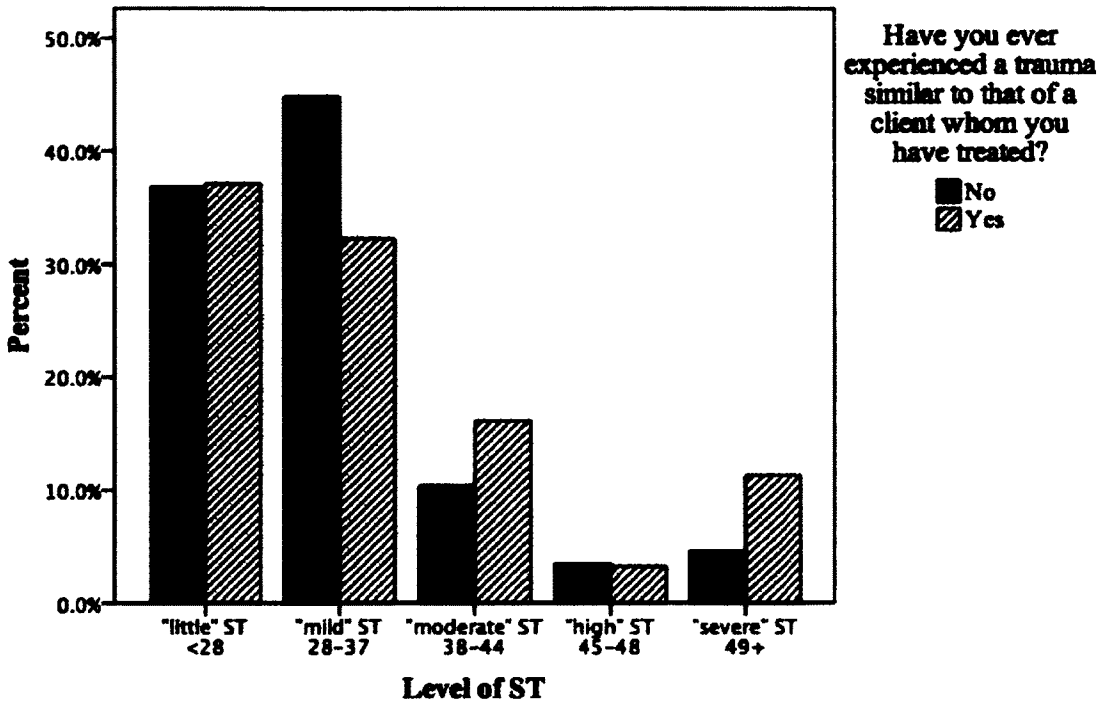

Figure 11. Level of ST by Similar Trauma History

Hypothesis 9: (a) MHPs who have a supervisor or other professional with whom they trust to debrief will report less ST than those who do not and (b) those who spend more time debriefing will report less ST than those who spend less time debriefing.

Trusted supervisor or other professional for debriefing (9a). The vast majority of respondents (87.4%) reported having another MHP or supervisor with whom they trust to debrief. Independent samples t-tests revealed that those without a trusted professional with whom to debrief did not have significantly higher levels of Total STSS [$t(214) =$

.13, $p = .447$, $d = .02$], nor was the MANOVA on the three subscales significant, $F(3, 218) = .15$, $p = .928$, $\eta_p^2 = .002$ (see Table 22 for means and standard deviations).

Table 22

Average ST Scores for MHPs With and Without a Trusted MHP for Debriefing

	M (SD)	
	Trusted Processional for Debriefing	
	Yes	No
Total STSS[1]	32.28 (9.79) (n=189)	32.56 (11.39) (n=27)
Intrusion[2]	8.79 (2.74) (n=191)	8.85 (3.00) (n=27)
Avoidance[3]	13.64 (4.59) (n=190)	13.61 (5.54) (n=28)
Arousal[4]	9.80 (3.42) (n=191)	9.86 (3.78) (n=28)

[1] No significant difference between "yes" and "no" one-tailed t-test ($p = .447$)
[2] No significant difference between "yes" and "no" one-tailed t-test ($p = .458$)
[3] No significant difference between "yes" and "no" one-tailed t-test ($p = .488$)
[4] No significant difference between "yes" and "no" one-tailed t-test ($p = .468$)

Supplemental analyses. A supplemental analysis 2 x 2 chi-square analysis revealed no significant association between type of community [Census Bureau definition, $\chi^2(1) = 2.73$, $p = .099$; MHPs definition, $\chi^2(1) = 2.05$, $p = .152$] and those who did and did not have a trusted supervisor or colleague with whom to debrief (see Table 23). No matter how location was divided, 80% to almost 90% of MHPs reported having a trusted professional with whom to debrief.

Table 23

MHPs Who Have and Have Not a Trusted Supervisor or Other MHP with Whom to Debrief by Location

	Percentages			
	U.S. Census Definition[1]		MHPs Definition[2]	
Trusted Supervisor/Other MHP for Debriefing	Rural	Urban	Rural	Urban
Yes	80.8% (*n*=42)	89.5% (*n*=145)	82.5% (*n*=52)	89.6% (*n*=138)
No	19.2% (*n*=10)	10.5% (*n*=17)	17.5% (*n*=11)	10.4% (*n*=16)

[1] No significant difference between "yes" and "no" two-tailed chi-square ($p = .099$)
[2] No significant difference between "yes" and "no" two-tailed chi-square ($p = .152$)

Time debriefing (9b). MHPs reported that they debriefed with a supervisor or colleague on average 5.26 times per month ($SD = 6.03$) with a range from zero to 35 times. Not surprisingly, those with a trusted supervisor or other MHP with whom to debrief spent significantly more time debriefing ($M = 5.91$, $SD = 7.64$) than those without a trusted supervisor or MHP ($M = 1.21$, $SD = 1.85$), $t(135.50) = -8.28$, $p < .001$, $d = -1.42$. There was no significant correlation, however, between frequency of time spent debriefing and levels of ST scores [Total STSS score, $r(214) = .04$, $p = .260$; Intrusion $r(216) = .07$, $p = .139$; Avoidance, $r(216) = .03$, $p = .314$; Arousal $r(217) = .04$, $p = .280$].

Supplemental analyses. Supplemental analyses were done to examine if there was a relationship between the size of an MHP's community and their time debriefing. There was a positive correlation between population size and frequency of debriefing, $r(212) = .14$, $p = .020$. One-way ANOVAs, however, revealed no difference in debriefing frequency between MHPs in metropolitan, micropolitan, and rural areas [F(2,

212) = .14, p = .872, η_p^2 = .001] nor for urban, rural connected to the road/ferry system, rural not connected to the road/ferry system [F(2, 215) = .16, p = .853, η_p^2 = .001] (see Table 24 for means and standard deviations).

Table 24

Average Time Debriefing Per Month by Type of Community

	M (SD)		
	Metropolitan	Micropolitan	Rural
Time Debriefing[1]	5.50 (6.29) (n=143)	4.90 (5.93) (n=20)	5.12 (5.75) (n=52)
	Urban	Rural Connected to Road/Ferry System	Rural Not Connected to Road/Ferry System
Time Debriefing[2]	5.45 (6.31) (n=155)	5.15 (5.21) (n=33)	4.80 (5.69) (n=30)

[1] No significant difference amongst groups, ANOVA (p = .872)
[2] No significant difference amongst groups ANOVA (p = .853)

Hypothesis 10: Those who (a) spend more time engaged in self-care and (b) those who feel their self-care is more adequate will report less ST than those who feel their self-care is less adequate.

MHPs reported spending an average of 10.90 hours per week (SD = 8.23) engaged in self-care activities. When asked to rate how much they agreed or disagreed with the statement "I feel that I spend enough time engaged in self-care," 64.6% stated that they either "somewhat" or "strongly" agreed, 28.2% reported that they "somewhat" or "strongly" disagreed, and 7.2% neither agreed nor disagreed.

Hours spent in self-care (10a). Hours per week spent in self-care was not significantly correlated with Total STSS [r(213) = .03, p = .355], Intrusion [r(215) = .04, p = .295], Avoidance [r(215) = .03, p = .310], or Arousal scores [r(216) = .02, p = .414].

Feelings of adequacy of self-care (10b). In support of Hypothesis 10b, feelings about the adequacy of time spent on self-care was significantly negatively correlated with all types of ST; Total STSS [$r(215) = -.31, p < .001$], Intrusion [$r(217) = -.24, p < .001$], Avoidance [$r(215) = -.32, p < .001$], and Arousal [$r(218) = -.28, p < .001$]. See Table 25 for ST score by rating of self-care.

Table 25

Average ST Scores by Rating of Adequacy of Self-Care

	M (SD)				
	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
Total STSS[1]	39.05 (11.61)	34.11 (9.60)	35.88 (14.27)	32.33 (8.21)	27.64 (8.63)
Intrusion[2]	10.21 (2.59)	9.14 (2.75)	10.19 (3.89)	8.70 (2.45)	7.80 (2.57)
Avoidance[3]	17.16 (5.76)	14.50 (4.36)	14.63 (5.81)	13.75 (4.32)	11.41 (3.84)
Arousal[4]	11.68 (4.41)	10.48 (3.69)	11.06 (5.23)	9.88 (2.65)	8.30 (2.76)

[1] Significant correlation between Total STSS and self-care rating ($p < .001$; $df = 215$)
[2] Significant correlation between Intrusion and self-care rating ($p < .001$; $df = 217$)
[3] Significant correlation between Avoidance and self-care rating ($p < .001$; $df = 215$)
[4] Significant correlation between Arousal and self-care rating ($p < .001$; $df = 218$)

Supplemental analyses. Respondents' ratings on whether or not they spend adequate time engaged in self-care was only weakly correlated with hours per week spent in self-care [$r(219) = .10, p = .079$]. See Figure 12 for hours spent in self-care by rating of self-care.

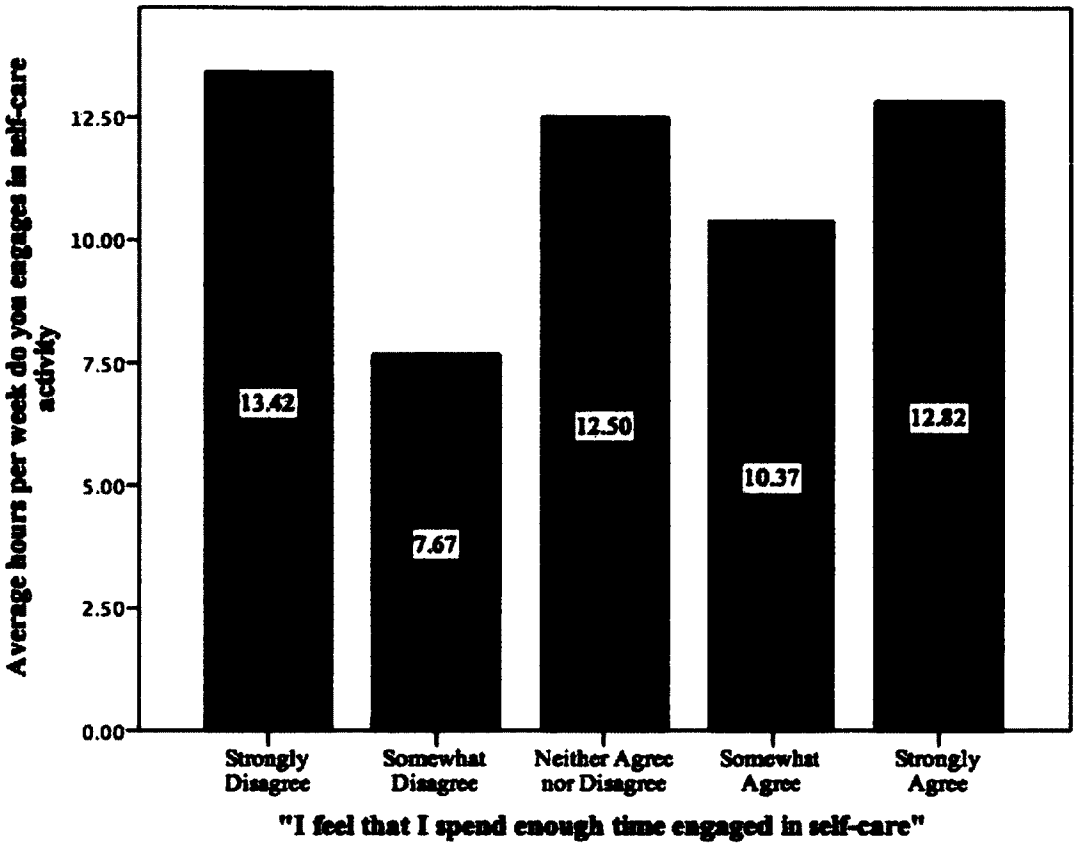

Figure 12. Average Hours Spent in Self-Care by Rating of Adequacy of Self-Care

How MHPs engage in self-care. A total of 216 participants responded to the question, "Please describe or list the various ways you engage in self-care." These open-ended responses were grouped into 19 different categories. The number of categories reported by participants ranged from 1 to 12 different types of self-care with a mean of 4.40 (*SD* = 2.00). The 19 categories and the frequency of participants that reported them are as presented in Table 26 below.

Table 26

Categories of Self-Care Reported

Category of Self-Care	Frequency	Percentage of 216 Respondents
1) Spending time with family and/or friends	155	71.76%
2) Exercise	139	64.35%
3) Outdoor activities/exercises	97	44.91%
4) Reading non work-related literature	82	37.96%
5) Spirituality or Meditation (e.g., attending church, bible study, practicing meditation)	59	27.31%
6) Crafts and means of self-expression (e.g., knitting, journaling, painting, building)	54	25.00%
7) Watching movies or television	42	19.44%
8) Music (e.g., listening to, playing, or writing)	35	16.20%
9) Massages/steam baths/hot tubs/saunas	34	15.74%
10) Debriefing (e.g., with colleagues/supervisors, talking to a therapist/priests, engaging in Alanon, Narcotics Anonymous)	28	12.96%
11) Food-related self-care (e.g., baking, eating out)	27	12.50%
12) Life-style and attitude self-care (e.g., seeing a doctor, getting enough sleep, keeping a nutritious diet, laughing)	19	8.79%
13) Taking vacations	12	5.56%
14) Volunteering	10	4.63%
15) Spending time alone	8	3.70%
16) Profession-related self-care (e.g., stay on top of paperwork, be selective about the type of clients they see, reading work-related materials)	6	2.78%
17) Community involvement	6	2.78%
18) Relaxation (deep breathing)	4	1.85%
19) Other self-care practices	43	19.91%

The total number of different categories reported by MHPs did correlate significantly with the hours they spent in self-care, $r(213) = .20, p = .002$. The number of

categories, however, did not correlate with their rating of whether they spend sufficient time in self-care, $r(214) = .00, p = .485$], nor with ST scores [Total STSS, $r(208) = .06, p = .176$; Intrusion, $r(210) = .09, p = .092$; Avoidance, $r(210) = .02, p = .40$; Arousal, $r(211) = .08, p = .128$].

Hypothesis 11: Those who report having more social support will experience less ST.

When asked to rate how much they agreed or disagreed with the statement "I feel that I have an adequate amount of social support," 75.2% either "somewhat" or "strongly" agreed, 18.5% "somewhat" or "strongly" disagreed, and 6.3% neither agreed nor disagreed.

In support of Hypothesis 11, there were significant negative correlations between how much social support MHPs felt they had and their Total STSS [$r(214) = -.37, p < .001$], Intrusion [$r(216) = -.28, p < .001$], Avoidance [$r(216) = -.42, p < .001$], and Arousal scores[$r(217) = -.28, p < .001$] (see Table 27 for means and standard deviations).

Table 27

Average ST Scores by Social Support Ratings

	M (SD)				
	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
Total STSS[1]	39.39 (14.44)	37.23 (9.70)	36.00 (14.63)	32.74 (8.25)	28.09 (8.01)
Intrusion[2]	10.73 (3.23)	9.29 (2.37)	10.14 (3.70)	8.91 (2.57)	7.87 (2.37)
Avoidance[3]	18.00 (7.28)	16.61 (5.26)	14.71 (6.07)	13.80 (3.64)	11.48 (3.59)
Arousal[4]	11.20 (4.25)	11.43 (3.30)	11.14 (5.30)	9.99 (3.21)	8.62 (2.83)

[1] Significant correlation between Total STSS and social support rating ($p < .001$; $df = 214$)
[2] Significant correlation between Intrusion and social support rating ($p < .001$; $df = 216$)
[3] Significant correlation between Avoidance and social support rating ($p < .001$; $df = 216$)
[4] Significant correlation between Arousal and social support rating ($p < .001$; $df = 217$)

Supplemental Analyses. There was also a significant positive correlation between the size of one's community and how much social support a respondent reported having [$r(211) = .15, p = .016$]. One-way ANOVAs (with rating of social support as the dependent variable) upheld this pattern amongst self-reported type of community (urban, rural connected to the road/ferry system, rural not connected to the road/ferry system) [$F(2, 214) = 3.09, p = .048, \eta_p^2 = .028$]. A Tukey post hoc analysis revealed that the only significant difference in rating of social support was between those who reported living in "urban" and "rural not connected to the road system" areas ($p = .05$). However, when the type of community was divided in a different way (metropolitan, micropolitan, and rural

areas), the pattern of the above two analyses was not upheld; there was no difference in rating of social support when the independent variable was the U.S. Census Bureau definitions of communities (metropolitan, micropolitan, and rural areas) [$F(2, 211) = 1.17, p = .312, \eta_p^2 = .011$] (see Table 28 for rating of social support by location).

Table 28

Rating of Adequacy of Social Support by Type of Community

	M (SD)		
	Metropolitan	Micropolitan	Rural
Social Support[1a]	3.94 (1.20) (n=142)	3.80 (1.11) (n=20)	3.63 (1.33) (n=52)
	Urban	Rural Connected to Road/Ferry System	Rural Not Connected to Road/Ferry System
Social Support[2a]	3.97 (1.16) (n=154)	3.70 (1.21) (n=33)	3.40 (1.40) (n=30)

[1] No significant difference amongst groups, ANOVA ($p = .312$)
[2] Significant difference amongst groups ANOVA ($p = .048$)
[a] Adequate Amount of Social Support rated 1=Strongly Disagree to 5=Strongly Agree

Mediation Analysis. To test whether or not (a) the effect of social support (b) mediates the effect of population size on Total STSS score, a mediation analysis based on the procedures outlined by Baron and Kenny (1986) was conducted. The four steps are as follows: (1) examine if the first variable (population size) is significantly associated with the dependent variable (Total STSS score); (2) examine if the hypothesized mediator variable (social support) is significantly associated with the dependent variable (Total STSS score); (3) examine if the mediator variable influences the dependent variable while controlling for the first predictor variable; and (4) reverse step three and control for

the mediator variable while examining the relationship between the first predictor and dependent variable. The mediator completely mediates the relationship between the first predictor and the dependent variable if the relationship between the first predictor and the dependent variable drops to zero in Step 4. If all the first three steps are met but not Step 4, the mediator variable is said to be partially mediating the relationship between the first predictor and the dependent variable (Baron & Kenny, 1986).

The analysis revealed that social support partially mediates the relationship between population size and Total STSS score. Step 1 supported that population size accounted for a significant portion of variability in Total STSS score [$R^2 = .04$, adj. $R^2 = .03$, $F(1, 206) = 7.71$, $p = .006$]. Step 2 found that social support accounted for a significant amount of variability in Total STSS score [$R^2 = .13$, adj. $R^2 = .13$, $F(1, 214) = 32.83$, $p < .001$]. To test Step 3, a hierarchical multiple regression analysis was conducted where community population size was entered as the first step and the social support variable was entered on the second step. Table 29 (below) shows that adding social support to the initial model for community population size partially mediates the effect of social support on Total STSS score. Population accounts for 4% of the variability in Total STSS score and adding social support to the model explains an additional 12% of the variability in STSS score.

Step 4 reversed Step 3 by adding community population size to the regression model for social support, which allowed for the examination of full mediation; if the model was non-significant it would have indicated that social support completely mediated the effects of population in Total STSS score. However, the model remained

significant in this fourth step, which means that social support does not completely mediate the effects of population on Total STSS score.

Table 29

Step Three: Effects of Population of Community When Social Support is Controlled – Total STSS as Dependent Variable

Predictor	R	R^2	Adjusted R^2	ΔR^2	F	df	p
Population	.19	.04	.03	.04	7.67	1, 205	.006
Social Support	.40	.16	.15	.12	29.24	1, 204	<. 001

Hypothesis 12: Those who are more embarrassed or hesitant to discuss ST will experience more ST.

When asked to rate how embarrassed or hesitant they would be to talk to a colleague about experiencing ST, 1.4% of MHPs reported that they would "very," 9.5% would be "somewhat," 40.5% would be "not too," and 48.6% would be "not at all" embarrassed or hesitant.

In support of Hypothesis 12, there were significant positive correlations between how embarrassed one would feel and Total STSS [$r(214) = .25, p < .001$], Intrusion [$r(216) = .25, p < .001$], Avoidance [$r(216) = .23, p < .001$], and Arousal scores [$r(217) = .23, p < .001$]. Notice that the Total STSS score moved from "mild" ST (scores 28-37) in the "Not at all Embarrassed/Hesitant" category to "moderate" ST (scores 38-44) in the "Very Embarrassed/Hesitant" category. See Table 30 for means and standard deviations of ST scores by rating of embarrassment/hesitance.

Table 30

Average ST Scores by Embarrassment/Hesitation to Discuss ST

	M (SD)			
	Not at all Embarrassed/ Hesitant	Not too Embarrassed/ Hesitant	Somewhat Embarrassed/ Hesitant	Very Embarrassed/ Hesitant
Total STSS[1]	29.82 (8.41)	33.74 (9.55)	36.81 (14.85)	38.33 (13.80)
Intrusion[2]	8.10 (2.38)	9.24 (2.60)	10.00 (4.09)	10.67 (4.62)
Avoidance[3]	12.57 (3.91)	14.20 (4.59)	15.57 (7.16)	16.33 (5.86)
Arousal[4]	9.02 (3.16)	10.32 (3.21)	11.24 (4.89)	11.33 (3.45)

[1] Significant correlation between Total STSS and embarrassment rating ($p < .001$; $df = 214$)
[2] Significant correlation between Intrusion and embarrassment rating ($p < .001$; $df = 216$)
[3] Significant correlation between Avoidance and embarrassment rating ($p < .001$; $df = 216$)
[4] Significant correlation between Arousal and embarrassment rating ($p < .001$; $df = 217$)

Supplemental analyses. Supplemental analyses showed that there was no correlation between the population size of one's community and how embarrassed they would be [$r(211) = -.08$, $p = .133$] nor any relationship between self-reported type of community (urban, rural connected to the road/ferry system, rural not connected to the road/ferry system) and embarrassment to discuss ST [$F(2.214) = 1.69$, $p = .188$, $\eta_p^2 = .016$]. There was also no significant difference on level of embarrassment between men ($M = 1.61$, $SD = .65$) and women ($M = 1.65$, $SD = .75$), $t(214) = -.36$, $p = .720$ (two-tailed), $d = .048$.

Hypothesis 13: Younger individuals will report higher levels of ST than older individuals.

While a previous study (Ghahramanlou & Brodbeck, 2000) found a correlation between ST and age, this study did not confirm that previous finding. Age was not significantly correlated with any of the measures of ST [Total STSS, $r(214) = .03, p = .716$; Intrusion $r(216) = -.03, p = .640$; Avoidance, $r(216) = .02, p = .745$; Arousal $r(217) = .04, p = .603$].

Supplemental analyses. Additional analyses were done to examine if age was associated with other factors reported by the participants. There were also no correlations (two-tailed) between age and how much time spent in self-care activities [$r(220) = -.09, p = .181$], perceived adequacy of self-care [$r(220) = .09, p = .185$], amount of time debriefing [$r(220) = -.06, p = .367$], perceived adequacy of social support [$r(219) = -.01, p = .941$], and feeling embarrassed or hesitant to discuss ST [$r(219) = -.09, p = .205$].

Hypothesis 14: When trauma history is controlled, there will be no difference between men and women MHPs in amount of ST.

The "transgender/other" category was suppressed to protect the anonymity of the 0.4% of these respondents. An ANCOVA revealed that when similar trauma history is controlled, there was no gender difference on Total STSS [$F(1, 204) = .05, p = .819$], Intrusion [$F(1, 206) = 1.65, p = .200$], Avoidance [$F(1, 206) = .43, p = .512$], or Arousal scores [$F(1, 207) = .10, p = .755$], supporting Hypothesis 14.

Supplemental analyses. Chi-squares revealed no significant association between gender and (a) meeting PTSD criteria by endorsing the appropriate amount of STSS

items [$\chi^2(1) = 2.58, p = .108$] or (b) on meeting ST criteria by having a Total STSS of higher than 38 [$\chi^2(1) = 3.41, p = .065$]. The majority of men and women did not meet PTSD criteria, however, approximately 1 in 4 women and 1 in 8 men met criteria (see Table 31).

Table 31

Frequency of MHPs Who Do and Do Not Meet PTSD Criteria by Gender

	N			
	Meets PTSD Criteria A[1]		Meets PTSD Criteria B[2]	
	Yes	No	Yes	No
Women	21.7% (*n*=33)	78.3% (*n*=119)	25.0% (*n*=38)	75.0% (*n*=114)
Men	12.7% (*n*=9)	87.3% (*n*=62)	14.1% (*n*=10)	85.9% (*n*=61)

[1] PTSD criteria met by endorsing appropriate numbers of STSS items; no significant difference between "yes" and "no" two-tailed chi-square ($p = .108$)
[2] PTSD criteria met by having a total STSS score of greater than 38; no significant difference between "yes" and "no" two-tailed chi-square ($p = .065$)

Even without controlling for similar trauma history, there were no significant differences by gender on Total STSS score [$t(174.60) = -.71, p = .481, d = .11$], Avoidance [$t(160.63) = .21, p = .837, d = .03$], or Arousal scores [$t(180.14) = -.61, p = .544, d = .09$]. The only difference in gender was seen on Intrusion, with females scoring higher, $t(179.84) = -1.77, p = .039, d = .26$. Table 32 displays the means and standard deviations for the four ST scores by gender. The Total STSS scores for females and males fall in the "mild" ST category.

Table 32

Means and Standard Deviations for ST Scores by Gender

	M (SD)	
	Women	Men
Total STSS[1]	32.51 (10.77) (n=142)	31.58 (8.02) (n=69)
Intrusion[2]	8.97 (3.01) (n=144)	8.33 (2.15) (n=69)
Avoidance[3]	13.51 (4.92) (n=144)	13.64 (4.04) (n=69)
Arousal[4]	9.92 (3.78) (n=145)	9.61 (2.70) (n=69)

[1] No significant difference between women and men, one-tailed t-test (p = .481)
[2] Significant difference between women and men, one-tailed t-test (p = .039)
[3] No significant difference between women and men, one-tailed t-test (p = .837)
[4] No significant difference between women and men, one-tailed t-test (p = .544)

Predictive Models

Simultaneous multiple regression analyses were conducted to include all variables found to be associated with Total STSS, Intrusion, Arousal, and Avoidance scores in the initial bivariate analyses. Multicollinearity was assessed by inspecting tolerance and variance inflation factors (VIF). Those variables with a tolerance of less than .40 and a VIF of 2.5 or greater were removed from a regression as such scores indicate excessive multicollinearity (Allison, 1999). Table 33 shows the correlation matrix for variables that were found to be significantly associated with Total STSS, Intrusion, Avoidance, and Arousal.

Table 33

Bivariate Correlations among Predictor Variables in Multiple Regression Analyses

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Population of community	–	.05	.08	-.09	-.29**	-.30**	.06	.15*	-.08	-.19**	-.13*	-.18**	-.18**
2. Time as MHP in community (in months)		–	.13*	.03	.04	.15*	.13*	.13*	-.08	-.12*	-.10	-.13*	-.12*
3. Percent of workday providing direct client services			–	.13*	.05	.16**	.06	.02	-.07	-.17**	-.14*	-.14*	-.13*
4. Similar trauma history to clients treated[1]				–	.12*	.14*	-.09	-.21**	.01	.11	.06	.12*	.10
5. Provided services to a long-term acquaintance[2]					–	.54**	-.15*	-.07	.03	.24**	.23**	.20**	.22**
6. Provided services to a casual acquaintance[3]						–	-.11	-.04	-.01	.16*	.12*	.14*	.15*
7. Adequate amount of self-care[4]							–	.51**	-.13*	-.31**	-.24**	-.32**	-.28**
8. Adequate amount of social support[5]								–	-.26**	-.37**	-.28**	-.42**	-.28**
9. Embarrassed to discuss ST with a colleague[6]									–	.20**	.25**	.23**	.23**
10. Total STSS Score										–	.86**	.95**	.91**
11. Total Intrusion Score											–	.72**	.69**
12. Total Avoidance Score												–	.79**
13. Total Arousal Score													–

*Correlation is significant at the 0.05 level (1-tailed).
**Correlation is significant at the 0.01 level (1-tailed).
[1] Similar trauma history 0 = no, 1= yes
[2] Provided services to a long-term acquaintance 0 = no, 1= yes
[3] Provided services to a casual acquaintance 0 = no, 1= yes
[4] Adequate amount of self-care 1= Strongly Disagree to 5= Strongly Agree
[5] Adequate amount of social support 1=Strongly Disagree to 5=Strongly Agree
[6]. Embarrassed to discuss ST 1=Not at all embarrassed/hesitant to 4= Very embarrassed/hesitant

The variables found to be significantly associated with Total STSS, Intrusion, Avoidance, and Arousal scores in the bivariate analyses (see the variables in the complete models below) and the composite variable outlining how many of the previously known types of people the MHPs have treated were included in the predictive models. Several of variables did not account for a significant level of the variability in the four models (see the significance levels in Tables 34, 35, 36, 37). However, removing them from the models markedly reduced the overall R^2, therefore they were maintained in the final models.

Total STSS Score. Table 34 (below) shows the complete model for predicting Total STSS score. This model accounted for a significant proportion (22.8%) of the variability in Total STSS score [$R^2 = .23$, adj. $R^2 = .20$, $F(8, 187) = 6.90$, $p < .001$]. Only three variables in the model, however, remained significant predictors once all variables in the model were considered: (1) spending less time providing direct client care, (2) reporting an inadequate amount of social support, and (3) feeling more embarrassment about discussing ST with colleagues. This suggests that these three variables that most significant predictors of Total STSS score.

Table 34

Multiple Regression Analyses Predicting Total STSS Score from Variables Indicated in Bivariate Analyses

Predictor	*B*	SE *B*	*β*	Sig.	Tolerance	VIF
Population of community	-5.93	.000	-.081	.247	.84	1.19
Time as MHP in community	-.003	.006	-.033	.615	.95	1.06
Percent of workday providing direct client services	-.043	.021	-.132	.047	.95	1.06
Treatment of long-term acquaintance[a]	2.94	1.59	.144	.066	.68	1.47
Treatment of casual acquaintance[b]	.897	1.68	.043	.593	.65	1.54
Rating of adequate self-care[c]	-.969	.578	-.127	.095	.72	1.39
Rating of adequate amount of social support[d]	-1.62	.674	-.189	.017	.66	1.51
Embarrassed/hesitant to discuss ST with a colleague[e]	2.34	.965	.165	.017	.89	1.13

a. Treatment of long-term acquaintance 0 = no, 1= yes
b. Treatment of casual acquaintance 0 = no, 1= yes
c. Adequate Amount of Self-Care 1= Strongly Disagree to 5= Strongly Agree
d. Adequate Amount of Social Support 1=Strongly Disagree to 5=Strongly Agree
e. Embarrassed to Discuss ST 1=Not at all embarrassed/hesitant to 4= Very embarrassed/hesitant

Intrusion. The variables in the final model for Intrusion score are seen in Table 35. This model accounted for a significant proportion (17%) of the variability in Intrusion scores [$R^2 = .17$, adj. $R^2 = .14$, $F(7, 191) = 5.53$, $p < .001$]. Only two variables in the model, however, remained significant predictors once all variables in the model were considered: (1) treating a long-term acquaintance and, (2) feeling more embarrassment about discussing ST with colleagues, suggesting that these two variables are the best predictor of Intrusion score.

Table 35

Multiple Regression Analyses Predicting Total Intrusion Score from Variables Indicated in Bivariate Analyses

Predictor	*B*	SE *B*	*β*	Sig.	Tolerance	VIF
Population of community	-1.04	.000	-.052	.464	.86	1.17
Percent of workday providing direct client services	-.010	.006	-.114	.094	.95	1.06
Treatment of long-term acquaintance[a]	.952	.446	.171	.034	.68	1.48
Treatment of casual acquaintance[b]	-.066	.467	-.011	.889	.65	1.53
Rating of adequate self-care[c]	-.244	.162	-.116	.135	.72	1.38
Rating of adequate amount of social support[d]	-.245	.188	-.105	.194	.67	1.50
Embarrassed/hesitant to discuss ST with a colleague[e]	.787	.272	.203	.004	.89	1.12

a. Treatment of long-term acquaintance 0 = no, 1= yes
b. Treatment of casual acquaintance 0 = no, 1= yes
c. Adequate Amount of Self-Care 1= Strongly Disagree to 5= Strongly Agree
d. Adequate Amount of Social Support 1=Strongly Disagree to 5=Strongly Agree
e. Embarrassed to Discuss ST 1=Not at all embarrassed/hesitant to 4= Very embarrassed/hesitant

Avoidance. The variables in the final model for total Arousal score are seen in Table 36. This model accounts for 22.5% of the variability in Avoidance score [$R^2 = .23$, adj. $R^2 = .19$, $F(9, 186) = 6.00$, $p < .001$]. Only two variables in the model, however, remained significant predictors once all variables in the model were considered: (1) reporting an inadequate amount of social support and, (2) feeling more embarrassment about discussing ST with colleagues, which suggests that these two variables are the best predictors of Avoidance score.

Table 36

Multiple Regression Analyses Predicting Total Avoidance Score from Variables Indicated in Bivariate Analyses

Predictor	*B*	SE *B*	*β*	Sig.	Tolerance	VIF
Population of community	-2.27	.000	-.066	.351	.84	1.20
Time as MHP in community	-.002	.003	-.039	.562	.94	1.06
Percent of workday providing direct client services	-.019	.010	-.126	.061	.93	1.07
Treatment of long-term acquaintance[a]	1.02	.747	.106	.174	.69	1.50
Treatment of casual acquaintance[b]	.387	.793	.039	.626	.65	1.54
Rating of adequate self-care[c]	-.341	.274	-.095	.215	.71	1.40
Rating of adequate amount of social support[d]	-1.03	.330	-.257	.002	.62	1.63
Embarrassed/hesitant to discuss ST with a colleague[e]	.931	.460	.140	.044	.88	1.14
Similar trauma history as a client[f]	.319	.660	.033	.629	.88	1.13

a. Treatment of long-term acquaintance 0 = no, 1= yes
b. Treatment of casual acquaintance 0 = no, 1= yes
c. Adequate Amount of Self-Care 1= Strongly Disagree to 5= Strongly Agree
d. Adequate Amount of Social Support 1=Strongly Disagree to 5=Strongly Agree
e. Embarrassed to Discuss ST 1=Not at all embarrassed/hesitant to 4= Very embarrassed/hesitant
f. Treatment of long-term acquaintance 0 = no, 1= yes

Arousal. The variables in the final model for total Arousal score are seen in Table 37. This model accounts for 11.4% of the variability in Arousal score [$R^2 = .18$, adj. $R^2 = .15$, $F(8, 190) = 5.21$, $p < .001$]. Only two variables in the model, however, remained significant predictors once all variables in the model were considered: (1) reporting an inadequate amount of self-care and, (2) feeling more embarrassment about discussing ST with colleagues. This suggests that these two variables are best predictors of the MHPs' Arousal score.

Table 37

Multiple Regression Analyses Predicting Total Arousal Score from Variables Indicated in Bivariate Analyses

Predictor	*B*	SE *B*	*B*	Sig.	Tolerance	VIF
Population of community	-2.27	.000	-.089	.217	.84	1.19
Time as MHP in community	-.002	.002	-.052	.442	.94	1.06
Percent of workday providing direct client services	-.011	.008	-.095	.158	.96	1.05
Treatment of long-term acquaintance[a]	.932	.565	.131	.101	.68	1.46
Treatment of casual acquaintance[b]	.392	.601	.053	.515	.65	1.54
Rating of adequate self-care[c]	-.420	.208	-.157	.044	.71	1.40
Rating of adequate amount of social support[d]	-.339	.243	-.113	.164	.66	1.52
Embarrassed/hesitant to discuss ST with a colleague[e]	.729	.346	.147	.037	.89	1.13

a. Treatment of long-term acquaintance 0 = no, 1= yes
b. Treatment of casual acquaintance 0 = no, 1= yes
c. Adequate Amount of Self-Care 1= Strongly Disagree to 5= Strongly Agree
d. Adequate Amount of Social Support 1=Strongly Disagree to 5=Strongly Agree
e. Embarrassed to Discuss ST 1=Not at all embarrassed/hesitant to 4= Very embarrassed/hesitant

Chapter 4 Phase Two: Qualitative

Qualitative interview-based data collection can provide a rich information base that would be nearly impossible to ascertain from quantitative inquiry alone. The purpose of the focus group was to allow a format for providers to clarify, discuss, and hypothesize about issues around ST, which helped to obtain a deeper understanding of the issue.

The method of data collection in which quantitative and qualitative procedures are used to complement or expand upon each other is called a sequential mixed methods design (Creswell, 2009). The mixed methods design seeks to triangulate data sources and help reduce the biases and limitations of purely quantitative or qualitative designs (Creswell, 2009).

Participants and Procedures

Four MHPs participated in the focus group, one man and three women. Of those, three were currently practicing in rural locations, and the other had prior experience providing services in rural areas of Alaska. All four participants were randomly selected from a list of providers who: (1) had participated in the online survey, (2) indicated their willingness to participate in the focus group on the on-line survey, and (3) scored 38 or greater on their total STSS score, indicating a marked elevation in ST. The focus group was conducted by conference call and lasted just over one hour. All participants received a $25 gift card for their participation.

The focus group was facilitated by a co-researcher approved by the Institutional Review Board who had experience in the clinical field and in qualitative research facilitation and analysis. Before the questions were posed, the facilitator relayed the

confidentiality of the focus group, the participants' ability to stop participation at any time, and that they were not required to answer any question with which they were uncomfortable.

The questions for the focus group were as follows:

1) How would you define secondary trauma (ST)?
2) Do you believe that ST is prevalent in Alaskan providers?
3) Do you feel that you have had sufficient training in ST?
4) How do you identify ST in yourself or others?
5) Do you think clinicians adapt to ST over time? Do they learn to prevent it? Identify it earlier?
6) Are there things that you do as a clinician to help prevent or cope with ST?
7) Do you believe there are some clinicians who are more susceptible to ST?
8) How do you feel that supervisors/organizations can help mitigate ST?
9) Anything you want to add? Any advice for future clinicians?

Analyses

The data were analyzed using conventional content analysis tenets, for which codes are developed from the data during the analysis process as opposed to having formal hypotheses or codes developed prior to obtaining the data (Hsieh & Shannon, 2005).

The first step in the qualitative analysis was to transcribe the data and examine for any emerging categories and codes. These initial categories were re-examined and classified to create an initial codebook, which defined the major themes that arose from

the data. The entire transcript was coded by a second coder (also the focus group moderator) who reviewed and refined the initial codebook.

The refined codebook that was agreed upon by both coders included nine nodes (or major themes), consisting of 31 codes (see Appendix K for the final codebook). To examine this final codebook, both coders recoded the entire transcript, focusing on four of the nine nodes consisting of 20 of the total 31 codes. These four nodes were chosen as they represented the largest proportion of all codes. Cohen's kappas were then calculated from these 20 codes in order to determine the acceptability of the codebook and inter-rater reliability. Cohen's kappa compares the level of observed agreement against the expected chance agreement between two coders (Cohen, 1960). Cohen's kappas were calculated by looking at both coders agreement of codes on a segment. A "segment" was considered one participant's response to the moderator's question or response to another participant. These segments could range from one to several sentences.

Landis and Koch (1977) gave guidelines for interpreting the strength of kappas, indicating that a range of .81 to 1.00 is "almost perfect." The kappas for the 20 codes in Phase Two of the current study ranged from .86 to .97 (all kappas for the 20 codes can be seen in Table 38). Therefore, according to Landis and Koch's criteria, the final codebook was considered well-defined and used for coding the focus group data.

Table 38

Cohen's Kappas

Codes	Cohen's Kappa
Node 1: Definition of ST	
1. How they notice ST in themselves	.92
2. How they notice ST in others	.92
Node 2: Sources of ST	
1. Medicaid/ Paperwork Requirements	.92
2. Isolation	
3. Lack of Support from Organization -	.97
4. Lack of Support from Supervisors	.87
5. Treatment of a family member	.86
6. Little assistance due to lack of counselors or other resources	.97
7. Frequent exposure to traumatic stories	.92
8. Pile up of stressors	.94
9. Not being prepared for what was encountered	.97
Node 8: Who is susceptible to ST?	.96
1. Personality traits of people who become clinicians	.94
2. Personal trauma history of the clinician	.97
3. New clinicians	.97
4. Being is a remote area	.97
Node 9: Advice to future clinicians	
1. Don't push yourself to the breaking point	.97
2. Remind yourself of the importance of your work	
3. Develop good self-care techniques	.97
4. Be a part of your community	.94
5. Don't be a therapist	.97

Results

How MHPs recognize ST in themselves and others. All four MHPs relayed that they felt ST is prevalent in providers in Alaska. Three of the four MHPs also reported that they had not received sufficient training on ST. They relayed that ST was not readily discussed in their graduate schools nor in the organizations for which they worked. Only

one provider reported that s/he received education from her/his organization within hers/his first year of working in Alaska.

The three MHPs who explained how they recognize ST in themselves described it as an unusual reaction to a client's story or as a feeling of ineffectiveness as a clinician.

- *"...when I have a client tell me a horrific story that, um, causes a reaction in me, um, and I find there's a need for me to talk to one of my peers about it, for me that's secondary trauma."*
- *"I do feel that, for myself, when I am getting to the point where I can feel, after meeting with somebody and listening to what's going on with that person in that situation and I'm in the middle of it or going over it at the end and I can feel the, um, that moment in myself where the anxiety starts to rise and I can start to experience physically those type of emotions start coming out as if, you know, I was going through a similar situation. For me that's the turning point of – ok, I better seek out somebody to go over this with because, you know, I'm having a personal reaction to this situation."*
- *"I'm feeling like 'ok, am I doing any good here? Is this something that I'm even effective at doing?'"*

These descriptions mirror two items on the Secondary Traumatic Stress Scale used in Phase One of this study; (1) "It seemed as it I was reliving the trauma(s) experienced by my client(s)" and (2) "I felt discouraged by the future."

Who is susceptible to ST. The participants were asked if they believe that there are some types of clinicians who may be more susceptible to experiencing ST. One

participant reported that clinicians with a personal trauma history are more at risk, which is consistent with the quantitative results finding that MHPs who have treated someone with a similar trauma history tend to have a significantly higher Total STSS score. Two participants reported that MHPs in more remote areas are more susceptible to ST, which is also consistent with the results of the quantitative portion finding that MHPs in smaller communities have significantly higher STSS scores. Yet another participant reported that newer, less experienced clinicians may encounter ST more frequently. This is not supported by the quantitative analysis, finding that career length was not associated with any of the STSS scores. All four participants relayed that all clinicians are susceptible simply because of the type of people who are drawn to the helping profession.

- *"Um, I think that clinicians in general are people who are really keyed into other people – we notice a lot of things about other people. And I just think, because those are the kind of people that tend to go into counseling careers, is we're already set up to have ST must be because of your mindsets and our own personality."*
- *"I was just gonna say that clinicians in general, we start out as very empathic individuals and very sensitive. And to be in an environment where you're constantly beset on all sides to a varying degree of continual stressors and then to have a lack of nurturing and support in the workplace, it's a recipe for disaster."*

Sources of ST. A key purpose of the focus group was to understand what causes ST in clinicians and the MHPs interviewed provided rich information to that end. They discussed that it is not only hearing traumatic stories from their clients that causes PTSD-

like symptoms, but how additional stressors can lead to an exacerbation of ST symptoms and feelings of general burnout. The nine aspects of their jobs that they indicated cause or increase ST are seen in Figure 13.

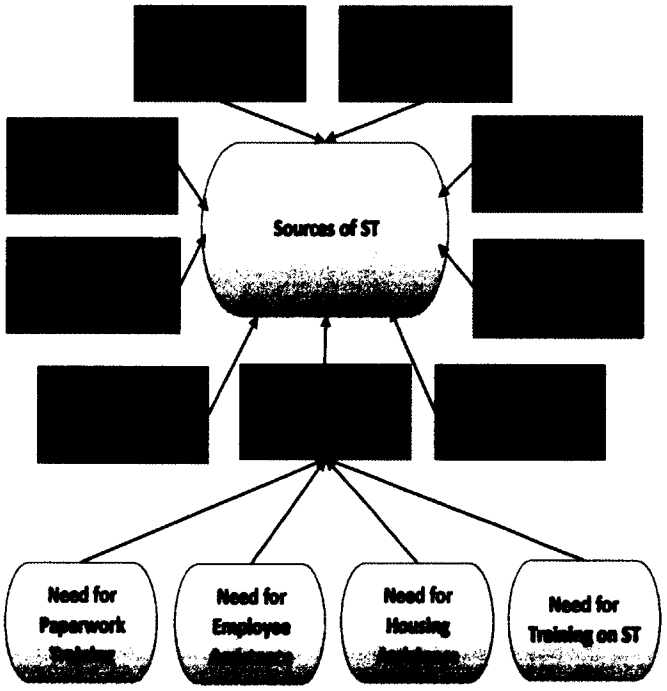

Figure 13. What Causes or Exacerbates Secondary Trauma

The nine major themes discussed by the clinicians interviewed can be broken into three major categories of stressors; (1) organization-related stressors, (2) Alaska-related stressors, and (3) general clinical work stressors (that can be encountered in any clinically-related work setting).

Organization-related stressors. The MHPs expressed that the organizations for which they work added to ST by either the pressures that they put on the clinicians or support that was lacking. One major theme mentioned was Medicaid and other paper work requirements; they stated that it was overwhelming in general and that they did not receive adequate orientation to paper work, which made their job more difficult.

- *"Um, but there is another kind of ST that's got nothing to do with clients. The other ST is, I really feel like, our system, mental health system is broken. Medicaid has so restricted us and monitors us that that in itself is more trauma because you've got a supervisor who, of course, wants to make profit or at least break even and you're pressured from that side too. And that causes a lot of stress and anxiety."*

Another organization-related stressor was unsupportive supervisors. Two of the participants relayed directly how supervisors had added to their ST. One participant interviewed reported that s/he was formally written up by a supervisor for processing the stress of working with a traumatized family during a clinical staff meeting. Only one of the participants relayed that s/he felt fortunate to have supportive supervisors. The quantitative portion of this study found that whether or not someone had a trusted supervisor or other colleague with whom to debrief was not associated with STSS scores.

Another way in which an organization can add to ST is by not providing trainings on ST or not allowing clinicians a confidential support person with whom they can discuss their stress, such as provided by an Employee Assistance Program.

- *"There is just no provision for providers for education or if they realize they are experiencing ST. At the agencies, they don't have any place for you to go to even talk about it with maybe even someone outside of the agency."*

The participants also expressed that when organizations do not provide assistance in finding housing, it adds to the already stressful job.

- *"...no one was helping me with housing, I had to live with someone for awhile and finally, finally, finally I got some help with housing. But that is a big stressor and you don't know – I was moving like from one place to another place to another place until it was like two months down the road that I actually had my own housing. It was extremely stressful. And my experience in agencies here is that it's like 'here's the work, here's what you need to do.'"*

Finally, they relayed that there can be a general feeling of not being supported by an organization.

- *"I often get that we're expendable as front-line workers and you just really need to find your own way to deal with it."*

Alaska-related stressors. The participants relayed that working in isolated areas can exacerbate ST not only because there are fewer outlets for self-care but also because there are fewer mental health resources (such as other counselors or treatment centers) with which one can connect clients.

- *"And often times the providers in the state as a whole are so stretched thin that, um, we might be able to touch the surface of being able to offer something minimally but there's just not the resource there to continue to give the follow up and make sure that they are doing good. And what do we see as result of it? We see the suicide rates in the state, we see the substance abuse rates in the states, more than double anywhere else in the country and, you know, you just start to shake your head and panic when you hear about one teen suicide or young adult suicide because you know what's gonna happen within the next few weeks after that. It's like we know what's gonna happen because there aren't enough resources to help and stay there and follow up and provide the support that's needed. "*

They discussed that providers in smaller communities may have to treat family members, which they feel causes more ST. This was not supported in the quantitative portion of the study, finding that treating long-term and casual acquaintances was associated with higher STSS scores, but not treating friends or family. Finally, in this category, they reported that clinicians are not prepared for what they encounter in Alaska when they move from elsewhere.

- *"No, I did not feel prepared when I came to Alaska - coming from the Lower 48 to Alaska to one of the hub villages to provide services. It was so overwhelming to see the conditions that providers had to face on a daily basis. No one prepared you for that initial change that you were gonna see and in*

the services that you needed to provide and the conditions that many people were dealing with, with their trauma."

General clinical work stressors. Other items that the participants reported cause ST had to do with the profession that can be encountered anywhere. They expressed that frequent exposure to traumatic stories causes ST. All of the participants also shared the idea that it is a culmination of stressors, not one singular event that leads to ST.

Effects of and adaptation to ST. All four participants shared that they adapt to experiencing ST by emotionally distancing themselves, which they also feel can be detrimental to their effectiveness as clinicians.

- *"And I believe that they adapt a lot of times by distancing themselves...They don't seem to be quite as invested, quite as interested in hearing the trauma and hearing the stories. And you go into a situation where...you're still clinically appropriate but you don't let yourself go there, you don't let yourself feel the things that you did early on in your clinical career...I think, it's really kind of unfortunate because I know - I look at relationships I've had with some of my clients and the relationship I have with them now and I can see, you know, when I was more willing to get to the same emotion and I know that I was a more effective clinician. I feel like I do a pretty decent job now but at the same time I feel like I was – I was more able to really attend when I was more willing to (go there) with them..."*
- *"...the only way to really cope on a long-term basis in a really highly-traumatized region (is) by just becoming numb to an extent as a protective*

measure... Consistently, out there um, it's a high level of burnout and they're having to learn to be judicious in energy use...that that leads to a whole different burnout issue for clinicians when we're really feeling that our efficacy in our job is compromised and that we have lost, you know, that spark. There can be, in myself, a degree of questioning my durability in the long-term in this career."

- *"...for me, it's been a matter of detaching and sometimes hearing what someone's saying but almost feeling numb about it. Getting the facts but just not letting myself go there... And I think, for me as a clinician, when I was first starting out I was more effective because I was able to connect at a deep level with my client. Whereas now, I'm not so likely to go there."*

What can reduce ST. The participants were asked how they cope with or prevent ST and what supervisors or organizations can do to mitigate the effects of ST. The participants reported that personally they find that art or other hobbies, having a pet, and having any place or activity that helps them mentally escape work reduces the effects of ST. One provider relayed that she has been generally unable to completely recuperate from ST, *"I don't care how many vacations I take it still ends up being the same, where I feel like I gotta back it up. I don't feel like there's any real, um, effective way to not do that. Otherwise you become burned out- completely burned out. I don't know..."*

The participants also shared how they feel that organizations can be helpful in mitigating ST. One participant relayed that having current employees share with new employees how they have adapted to the work or community environment would be very

helpful. Another shared that there should be frequent stress debriefings within organizations and not simply one time after a traumatic event. One participant discussed that talking circles for clinical staff would be beneficial and two participants discussed the need for Employee Assistance Programs or other such resources that allow clinical staff to confidentially address work-related stress.

All of the participants discussed the importance of supportive supervisors.

- *"I have to say that I actually feel pretty fortunate considering some of the stories that I've heard today.... I feel like I really got a super supportive supervisor staff, from the top level down, I've got great supervisors. And having supervisors that are supportive of the person, not just of the process; people that recognize that paperwork is a necessary evil (and I say evil with a capital E), that it's something that we have to deal with that it's the second most important thing, um, even the third. But recognizing that the chances are that the clinicians are susceptible or dealing with the trauma that, even that our clients are for Pete's sake. We have to me mindful that just because we have a Master's degree, we have an advanced license – you know, we're not impervious, that we're just not an LCSW, you know, we're people too and you I feel really fortunate being in that kind of environment."*

One participant reported that being supervised by someone who has long-term experience in an area of Alaska is important. This MHP also relayed that overall support from an organization can facilitate that, *"...spend more time helping those that are from the state wanna stay within the state, you know, are invested in the communities that they live in*

and want to help. If you can get those individuals more training and support and not cut their training funds you can rebuild and re-energize, you're gonna have more success in keeping them in place and then they're gonna be the good supervisors that are there for the new people that are coming in."

Advice to future clinicians. In addition to considering a different profession (which was mentioned by two of the five MHPs), they provided four other distinct pieces of advice to future clinicians:

Learn to recognize ST early. *"...what I would recommend to new people coming in was – would be to not wait until you are at the breaking point before you start seeking support that may help you individually to stay balanced. I think we tend to do that anyway – we tend to just hang in there until the next time...but that's when we tend to burn out and, you now, throw in the towel. So encouraging people as you start noticing that things are getting a little stressful...that's when you need to go in there at the very latest – not waiting too long to seek assistance."*

Remind yourself of the importance of your work. *"Not too long ago I was just kinda at a crossroads and said "ok, what, why am I doing this? Is this something that I want to continue with?" And I really have to go back to, you know, it's my decision to come into the field in the first place and had the desire to be helpful to others. And if I can remind myself on a daily basis...that I am here providing a service to somebody, I mean genuinely providing a service, not earning a living. To me that tends to soften a lot of the bumps that come up - really trying to keep my own head straight with where I am."*

Develop good self-care techniques. *"...just the encouragement for them to adhere (to) and develop their own self-nurturance habits. And to understand that you're coming into a remote region and you're going to really be – you know, not have all the cultural or city supports. And a lot of people don't really understand that when they come up."*

Be a part of your community. Three participants discussed getting involved in one's community and drawing self-care resources from the area. One participant relayed *"...the inner source of strength that I found in this-get absolutely involved with your community. That...to me that is a survival. I mean, yes, in the small villages you're going to run into your clients and then you're going to go talk to them in the grocery store – but just recognizing that there's a different level of um, - I mean there's confidentiality and then there's the relationships that we have with the people and with the community. Embrace the village mentality in a lot of ways. We tend to want to try and distance ourselves from that but in my mind that's the way to survive - that's the way to really get the most experience out of being in the village."*

Chapter 5 Discussion

According to the present survey, an alarming number of mental healthcare providers (MHPs) in Alaska (1 in 5) are suffering from secondary trauma (ST). Approximately 1 in 4 women and 1 in 8 men in this Alaskan sample of providers met criteria for having PTSD caused by their work. This study set out to address two main questions relevant to those who have devoted themselves to promoting the mental health of their fellow Alaskans; (1) what aspects of an MHP's work and personal life may increase or reduce their risk for ST, and (2) what can we tell them to do about this risk?

What makes an MHP more at risk for ST?

The mean Total STSS score of 32.37 indicated that, on average, Alaskan providers are experiencing "mild" ST. However, several variables measured in this study appear to put providers at increased risk, including: (1) working in a rural location,(2) treating long-term and casual acquaintances, (3) feeling less positive about the adequacy of their social support and self-care, and (4) feeling more embarrassed/hesitant to discuss ST with colleagues.

Rural providers. MHPs working in a rural location were significantly more likely than urban providers to report that they treated family, friends, and casual and long-term acquaintances. Treating casual or long-term acquaintances, however, were the only variables in this set of factors associated with experiencing more ST symptoms. Rural providers also interact with clients outside of work significantly more than do urban providers, however, this was not associated with an increased risk of ST. Providers in the focus group discussed that rural providers may be the only mental healthcare

resource in their community, which may add to ST. Being the sole MHP in one's community may be a key factor that mediates the relationship between working in a rural location and experiencing ST. Future research should address how rural providers feel about the resources for themselves and their clients in their small communities.

Treating long-term and casual acquaintances. Rural providers certainly treated more types of people they knew before treatment. However, no matter where the MHP worked, treating family members and friends did not influence ST while treating long-term and casual acquaintances did. It may be that MHPs are already aware of what is transpiring in the lives of their family members and friends and thus when they approach the MHP for assistance, it does not come as a surprise to them. They may also have had more opportunity to process the friend or family members' problems in a non-clinical setting. When a person less intimately known approaches the MHP with a traumatic story, the MHP may be caught more off-guard and may have less opportunity to process the trauma outside of the therapy setting. It may also be that a family member or closer friend to the MHP is less forthcoming with information.

Feeling about self-care and social support. It is no surprise that not feeling one engages in enough self-care is associated with more ST. However, it is very interesting that the number of hours spent in self-care was not significantly associated with either one's rating of the adequacy of their self-care nor with their degree of ST. This may mean that (1) feelings of adequacy of self-care (and not exact hours spent in self-care activities) influences ST or (2) MHPs who are already experiencing ST are more likely to feel that their self-care is not adequate no matter how many hours they engage in such activities.

The same potential explanation may account for the association between social support and ST found in the current research. It may be that: (1) social support protects MHPs against ST, or (2) those who are already experiencing ST feel that their social support is lacking. It is important to note that providers in less populated communities reported being significantly less satisfied with the amount of social support they have available to them. Future research should examine social support and self-care in greater detail (with more specific information gained on quantity and quality in a longitudinal study) to examine if these two factors protect MHPs against ST.

Embarrassment to discuss ST. Being embarrassed or hesitant to discuss ST was associated with higher rates of ST. As relayed in the pilot study, providers may be hesitant to address ST with colleagues as these colleagues may question their abilities as a therapist. This research found no gender differences on embarrassment to discuss ST. This may be the case for MHPs in the most recent study; those who are experiencing more ST are more reluctant to address it for whatever reason. However, it may also be that clinicians who report that they would be more embarrassed are also generally hesitant to seek out colleagues' assistance at the onset of any trouble. Therefore, it may be a personality trait of the MHP that increases their level of ST rather than a fear that it will impact their professional life or others' opinions of them in a negative way.

The participants in the focus group also discussed an important factor that may add to a MHP's hesitation to address ST with colleagues; being reprimanded by supervisors or organizations for sharing ST experiences. These findings suggest that it would be prudent for organizations and supervisors to encourage open dialogue with the

front-line workers about the potential for ST and to be sure to provide adequate and confidential employee assistance.

What Makes an MHP Less at Risk for ST?

Contrary to the hypothesis, which was that MHPs who spend a higher percentage of their time providing direct client care (individual, family, or group therapy) would experience higher ST, spending a higher percentage of time in direct client care was actually associated with less ST. It seems unlikely that having more experience with hearing difficult stories from clients protects MHPs from experiencing ST. Participants in the focus group relayed that once they experience ST, they emotionally distance themselves from their clients so that traumatic stories do not impact them again so distinctly. So, providers who spend a larger percentage of their time with clients may truly be experiencing less ST (be it from practice, individual emotional resources, etc.) or they are indeed already traumatized and emotionally distancing from their clients. This may also explain the current study's finding that time spent directly providing trauma-related services was not associated with more ST. Future research should examine details about how caseload and ST are associated, if at all. It may be that when MHPs are spending a higher proportion of their time in direct client care that these clients may be less emotionally taxing in some way. Future research should also examine MHPs' level of emotional connected to their clients and what factors may later that connectedness.

Importantly, age, time spent debriefing, having a trusted supervisor, hours spent in self-care, having a similar trauma history as a client, and gender were not associated with ST. Previous research found that younger clinicians experienced more ST

(Ghahramanlou & Brodbeck, 2000). However the average age of participants in that study was 33.8 (with a range of 20 to 63) while the average age of participants in this study was 51.08, with a range of 20 to 81. Further studies should continue to examine for a relationship between age and ST.

Previous studies have found that debriefing reduces clinically-related work stress (Farrenkopf, 1992; Follette et al., 1994; Johnson, 2009; Pearlman & Mac Ian, 1995; Rich, 1997). However, having a trusted person with whom to debrief and time spent in debriefing was not associated with ST in this research. It may be that Alaskan MHPs are somehow different than other MHPs in their supervision. It may be that substantially more or less Alaskan MHPs have trusted professionals with whom to debrief or that they spend substantially more or less time in debriefing, therefore altering how debriefing affects ST in Alaskan providers when compared to MHPs in other states. It may also be that although debriefing is helpful for work stress and burnout, it does not ease ST per se.

Hours spent in self-care was also not associated with ST in this research. However, the rating of adequacy of self-care was associated with lower levels of ST. This may indicate that it is truly the quality and not the quantity of the self-care activities that may protect against the deleterious effects of ST.

Unlike previous studies, treating someone with a similar trauma history was not associated with ST in this research. There are many factors that could influence the connection between ST and having a similar trauma history to a client. Therefore, further research should examine a potential link between ST and an MHP's personal trauma history by inquiring into such variables as the type of shard trauma history, the time that

has passed since the traumatic event, and what treatment the MHPs received to address their trauma.

What Can be Done to Reduce ST?

What MHPs can do to reduce ST. The findings from this research suggest that MHPs should be aware of their social support and self-care needs, and take step to address these areas of their life if they feel they are inadequate. The data from the focus group also highlighted that MHPs should be aware of the effects of the compilation of stressors in their lives (not just hearing traumatic stories) and that being an active participant in one's community can diminish work-related stress and provide self-care activities. Clinicians may be innately more sensitive to the plight of others as they chose to enter a helping profession, but being aware of the factors and feelings stated above may help reduce burnout and ST.

What organizations can do to reduce ST. The focus group participants indicated that there are aspects of an organization or supervisor that can help reduce ST. Organizations can provide Employee Assistance Programs and encourage an environment that allows for open discussion of ST and other concerns. Organizations can also provide supervisors who are supportive of their supervisees and who have adequate experience in the areas of the state they are working. While having a trusted supervisor was not significantly associated with less ST in the quantitative portion of this study, the focus group participants ardently addressed the impacts of having either supportive or unsupportive supervisors. Focus group participants also highlighted that organizations can reduce ST by providing assistance with learning how to complete paperwork, finding

housing, and preparing them for what to expect in working in Alaska and in an isolated region. The focus group participants also relayed three key practices to pass on to new clinicians, which they felt will help them cope with or prevent ST: (1) be aware of ST and learn to recognize it in yourself early on, (2) remind yourself of the purpose and importance of your work, and (3) be an active part of the community, which provides social support and self-care activities.

Limitations

There were several limitations present in this study. First and foremost, a large number of MHPs in Alaska were not included in the sampling frame. Due to time constraints and difficulties securing tribal and regional approvals, BHAs employed by only one tribal region were surveyed. In addition, only providers with a license were sampled because a sampling frame of licensed providers was publicly available. This means that there is a very large overrepresentation of licensed rural providers. As licensed providers may be paid more and have more continuing education experiences than non-licensed providers, they certainly do not represent the all Alaskan MHPs. As mental health service organizations in Alaska are allowed to bill Medicaid and Indian Heath Service insurances for services provided by non-licensed professionals, there are potentially very large numbers of unlicensed professionals providing mental health services in the state who were not eligible for inclusion in this study. This group of MHPs may be at increased risk of ST given that they likely have less education than licensed providers and potentially less training on ST. They may also have lower salaries and work more hours, potentially putting them at further risk.

Second, MHPs were asked only about ST experienced within the past month, not the past seven days as in the originally designed survey instrument (STSS). This was done to increase the accuracy of the reporting. Therefore, while this study gives a good snapshot of current ST experiences, the findings could vary if conducted with a shorter or longer time frame of reference. This alteration of the STSS also meant that the Alaskan STSS scores could not be compared to providers from previous research.

Third, there were many tests of statistical significance in Phase One of this study and a correction for Type I error was not conducted. However, Keppel (1991) argued that correcting for Type I error is not needed when hypotheses are grounded in theory or based on prior findings regarding the connection between the variables. While this was one of the first studies to examine a multitude of predictor variables as they related to ST, most of these individual predictor variables were examined in previous research and thus hypotheses about their relationship to ST were made a priori. Consequently, the analyses were theory-driven, focused and directional; they were not aimed at casting a wide exploratory net, they were not seeking blindly for relationships among variables, and they were not two-tailed/non-directional analyses. Additionally, in this applied research, committing a Type I error was deemed to be of less concern than a Type II error. For example, committing a Type II error (like failing to detect that rural MHPs are at greater risk of developing ST) would be a worse than committing a Type I error (like stating that rural MPHs are at greater risk with they are, in reality, not at greater risk). The goal of this research was to identify those providers at the greatest risk, so failing to identify a

relevant predictor was seen as the more important error to avoid. As such, corrections for Type I error were not performed.

Fourth, there were many variable measures developed for this study that have not been previously used in research, including the four variables measuring treating people known, type of community, length of time providing services, interaction with clients outside of work, amount of time debriefing, having a trusted supervisor/other professionals with whom to debrief, proportion of caseload that is trauma-related, and time spent in self-care. Therefore the validity and reliability of these measures are unknown. In addition, only four MHPs participated in the focus group and there were some conflicting results between the quantitative data in Phase One and the qualitative data in Phase Two. Therefore, the results in Phase Two should be interpreted with caution.

Finally, the multiple regression models for the four ST scores accounted for only small percentages of the variance of those scores (Total STSS at 22.8%, Intrusion at 17%, Avoidance at 22.5%, and Arousal at 11.4%). There are countless other work, community, and personal factors that can help account for variance among MHP's ST scores. Future research should examine traits of the clinicians (e.g., resiliency or depression) and community/organizational traits (e.g., community resources available to clients, salary, or various measures of job satisfaction) that can help predict ST scores.

Conclusion

Overall, this research helped fill a gap in understanding ST among Alaskan providers and rural providers as a whole. Secondary trauma may be a large contributor to

professional burnout and turnover rates amongst MHPs. As the Alaska collegiate system produces future MHPs at the Bachelor's, Master's, and Doctoral levels, the graduates will need to be able to address their clients' issues in a way that maintains their own psychological wellbeing.

The goal of this research was ultimately to provide information that will allow clinicians to continue their work, helping their communities, and hopefully reducing the disruptive turnover of providers in rural areas. Understanding what contributes to ST allows current clinicians, those entering the field, and those who train them to prepare for and prevent ST, and thus turnover rate, which will be beneficial for all of Alaska.

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Appendix A

Metropolitan, Micropolitan, and Rural Areas of Alaska

as Defined by the U.S. Census Bureau

(http://ftp2.census.gov/geo/maps/metroarea/stcbsa_pg/Nov2004/cbsa2004_AK.pdf)

Appendix B

Letter of Support from ANTHC's Behavioral Health Aide Director

ALASKA NATIVE TRIBAL HEALTH CONSORTIUM
4000 Ambassador Drive (C-DCHS)
Anchorage, Alaska 99508
Telephone: 907-729-4594
Facsimile: 907-729-2924

August 25, 2011

To Whom It May Concern:

I am writing in support of Erin Johnson's doctoral dissertation proposal "Secondary Trauma in Mental Healthcare Professionals in Alaska" The information on her proposal has been shared with all the Tribal Behavioral Health Directors (TBHD) and has received overall support.

Ms. Johnson has addressed all related questions and concerns voiced by the TBHD in a timely and satisfactory manner. They welcome the participation of their master level clinical staff as well as the Behavioral Health Aides in her survey and look forward to reviewing the results of her work.

Please feel free to contact me with any questions or concerns regarding this letter of support. I can be reached at 907 729-4594.

Sincerely,

Laura Báez, LCSW, LPC
Behavioral Health Director
Behavioral Health & Rural Services

Appendix C

Recruitment Letter

(UAA Letterhead)

September 30, 2011

Dear _____,

My name is Erin Johnson and I am a doctoral candidate in the UAF-UAA Joint Ph.D. Program in Clinical-Community Psychology with a Rural Indigenous Emphasis. I am currently conducting my dissertation on secondary trauma among mental healthcare professionals who work throughout Alaska and I would greatly appreciate your input on this topic. Secondary trauma is a stress reaction a person feels by hearing about a traumatic event experienced by another, such as a client.

You have been randomly selected from a list of licensed providers in Alaska to be invited to participate in this study. This study involves completing an online survey, which is comprised of two parts: a 27-item questionnaire about your work as a mental healthcare provider and the 17-item Secondary Traumatic Stress Scale (STSS; Bride, 1999). It should take approximately 10-20 minutes to complete. The first part of the survey will ask about your age, gender, education, and the type of community in which you work (rural or urban), in addition to questions about your work as a mental healthcare professional including the types of clients you see, your opportunities to debrief with a supervisor or colleague, your stress reduction activities, and your feelings about secondary trauma. The STSS asks about whether or not you have experienced various symptoms of secondary trauma in the past 30 days, such as trouble sleeping, feeling jumpy, and wanting to avoid working with certain clients.

I have included the web address and a survey code at the bottom of this letter. The sole purpose of this code is so that I do not send you follow-up reminders once you have completed the survey. I will delete your code from the rest of your responses once I receive them. Please note that at the end of the survey, I ask you if you would be willing to participate in a follow-up interview process (which includes asking for your name and contact information). If you do choose to provide this contact information, I will immediately separate your information from your responses and they will not be attached to your data in any way. Your name will never be attached to your responses and your confidentiality will be maintained.

Your response to any or all of the questions is completely voluntary. Please be aware that, as a mandated reporter, I must report any child or elder abuse or neglect to the appropriate authorities. There is the risk that recalling experiences you may have had with secondary trauma could cause you some emotional discomfort. If you would like to

debrief after completing the questionnaire, you may contact me and I would gladly speak with you or I can refer you to a clinician who can speak to you by phone.

This project has been approved by the University of Alaska Anchorage Institutional Review Board, the Alaska Area Institutional Review Board, and the Alaska Native Tribal Health Consortium. If you have any questions about this research, please contact me or my research supervisor, Dr. Claudia Lampman (contact information listed below). Laura Baez, Director of Behavioral Health and Rural Services at ANTHC, can be reached at (907) 729-1900 or lbaez@anthc.org. If you have any questions about your rights as a research participant, please contact Dr. Christiane Brems, Interim Vice Provost for Research and Graduate Studies at UAA at (907) 786-1099. You can also contact Terry Powell with the Alaska Area Institutional Review Board at (907) 729-3924 (collect calls accepted) or by email, tjpowell@anmc.org.

I understand that your time is very valuable and that is why I have included $2 in appreciation of that time. I greatly appreciate your input and I hope to assemble data that will benefit all providers in Alaska by learning how best we can be supported in our line of work.

Many Thanks,

Erin Johnson, M.S. Clinical Psychology

Please go to: http://www.alaskaprovidersurvey.com/

Your code is:

Principal Investigator:	**Dissertation Chair:**
Erin Johnson M.S. Clinical Psychology University of Alaska Anchorage Psychology Department 3211 Providence Drive, SSB214 Anchorage, Alaska 99508 or P.O. Box 725 Nome, AK 99762 (907) 443-4565 eljohnson10@alaska.edu	Claudia Lampman, Ph.D. Professor of Psychology University of Alaska Anchorage Psychology Department 3211 Providence Drive, SSB214 Anchorage, Alaska 99508 (907) 786-1619 afcbl@uaa.alaska.edu

Appendix D

Postcard for Requested Paper Survey

From:

_____

_____

_____

Erin Johnson
P.O. Box 725
Nome, AK 99762

Please send me a hard copy of this survey for me to complete.

(A paper survey and postage-paid return envelope
will be sent to the return address you provide)

Appendix E

Follow-up to Recruitment Letter

(UAA Letterhead)

(Date)

Dear _____ _____,

Several weeks ago I sent you a letter asking you to complete an online questionnaire about secondary trauma among mental healthcare professionals in Alaska and I would still greatly appreciate your input. Your code to access the survey is provided below. The sole purpose of this code is so that I do not send you an additional follow-up letter once you have completed the survey. I will delete your code from the rest of your responses once I receive them. Please note that at the end of the survey, I ask if you would be willing to participate in a follow-up interview process (which includes asking for your name and contact information). If you do choose to provide this contact information, I will immediately separate your information from your responses and they will not be attached to your data in any way. Your name will never be attached to your responses and your confidentiality will be maintained.

This questionnaire should only take approximately 10-20 minutes to complete and your perspective will provide valuable information. Please do not hesitate to contact me with any questions.

Sincerely,

Erin Johnson, M.S. Clinical Psychology

Please go to: http://www.alaskaprovidersurvey.com/

Your code is:

Principal Investigator:	**Dissertation Chair:**
Erin Johnson M.S. Clinical Psychology University of Alaska Anchorage Psychology Department 3211 Providence Drive, SSB214 Anchorage, Alaska 99508 or P.O. Box 725 Nome, AK 99762 (907) 443-4565 eljohnson10@alaska.edu	Dr. Claudia Lampman Professor of Psychology University of Alaska Anchorage Psychology Department 3211 Providence Drive, SSB214 Anchorage, Alaska 99508 (907) 786-1619 afcbl@uaa.alaska.edu

Appendix F

Secondary Traumatic Stress Scale (STSS)

SECONDARY TRAUMATIC STRESS SCALE

The following is a list of statements made by persons who have been impacted by their work with traumatized clients. Read each statement then indicate how frequently the statement was true for you in the past **thirty (30) days** by circling the corresponding number next to the statement.

NOTE: *"Client" is used to indicate persons with whom you have been engaged in a helping relationship. You may substitute another noun that better represents your work such as consumer, patient, recipient, etc.*

	Never	Rarely	Occasionally	Often	Very Often
1. I felt emotionally numb	1	2	3	4	5
2. My heart started pounding when I thought about my work with clients	1	2	3	4	5
3. It seemed as if I was reliving the trauma(s) experienced by my client(s)	1	2	3	4	5
4. I had trouble sleeping	1	2	3	4	5
5. I felt discouraged about the future	1	2	3	4	5
6. Reminders of my work with clients upset me	1	2	3	4	5
7. I had little interest in being around others	1	2	3	4	5
8. I felt jumpy	1	2	3	4	5
9. I was less active than usual	1	2	3	4	5
10. I thought about my work with clients when I didn't intend to	1	2	3	4	5
11. I had trouble concentrating	1	2	3	4	5
12. I avoided people, places, or things that reminded me of my work with clients	1	2	3	4	5
13. I had disturbing dreams about my work with clients	1	2	3	4	5
14. I wanted to avoid working with some clients	1	2	3	4	5
15. I was easily annoyed	1	2	3	4	5
16. I expected something bad to happen	1	2	3	4	5
17. I noticed gaps in my memory about client sessions	1	2	3	4	5

Please note: This instrument was altered, with the author's permission, to obtain responses regarding the past 30 days instead of the past seven (7) days as it was originally designed.

Intrusion Subscale (add items 2, 3, 6, 10, 13)	Intrusion Score	_____
Avoidance Subscale (add items 1, 5, 7, 9, 12, 14, 17)	Avoidance Score	_____
Arousal Subscale (add items 4, 8, 11, 15, 16)	Arousal Score	_____
TOTAL (add Intrusion, Arousal, and Avoidance Scores)	Total Score	_____

Bride, B.E., Robinson, M.R., Yegidis, B., & Figley, C.R. (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice, 14,* 27-35.

Appendix G

Online Questionnaire

Predictive Model Block

Consent Information

My name is Erin Johnson and I am a doctoral candidate in the UAF-UAA Joint Ph.D. Program in Clinical-Community Psychology with a Rural Indigenous Emphasis. I am currently conducting my dissertation on secondary trauma among mental healthcare professionals who work throughout Alaska and I would greatly appreciate your input on this topic. Secondary trauma is a stress reaction a person feels by hearing about a traumatic event experienced by another, such as a client.

You have been randomly selected from a list of licensed providers in Alaska to be invited to participate in this study. This study involves completing an online survey, which is comprised of two parts: a 27-item questionnaire about your work as a mental healthcare provider and the 17-item Secondary Traumatic Stress Scale (STSS; Bride, 1999). It should take approximately 10-20 minutes to complete. The first part of the survey will ask about your age, gender, education, and the type of community in which you work (rural or urban), in addition to questions about your work as a mental healthcare professional including the types of clients you see, your opportunities to debrief with a supervisor or colleague, your stress reduction activities, and your feelings about secondary trauma. The STSS asks about whether or not you have experienced various symptoms of secondary trauma in the past 30 days, such as trouble sleeping, feeling jumpy, and wanting to avoid working with certain clients.

Below you are asked to input the survey code that was at the bottom of the letter you received from me in the mail recently. The sole purpose of this code is so that I do not send you follow-up reminders once you have completed the survey. I will delete your code from the rest of your responses once I receive them. Please note that at the end of the survey, I ask you if you would be willing to participate in a follow-up interview process (which includes asking for your name and contact information). If you do choose to provide this contact information, I will immediately separate your information from your responses and they will not be attached to your data in any way. Your name will never be attached to your responses and your confidentiality will be maintained.

Your response to any or all of the questions is completely voluntary. Please be aware that, as a mandated reporter, I must report any child or elder abuse or neglect to the appropriate authorities. There is the risk that recalling experiences you may have had with secondary trauma could cause you some emotional discomfort. If you would like to debrief after completing the questionnaire, you may contact me and I would gladly speak with you or I can refer you to a clinician who can speak to you by phone.

This project has been approved by the University of Alaska Anchorage Institutional Review Board. If you have any questions about this research, please contact me or my research supervisor, Dr. Claudia Lampman (contact information listed below). If you have any questions about your rights as a research participant, please contact Dr. Helena Wisniewski, Vice Provost for Research and Graduate Studies at UAA at (907) 786-1099.

By marking "I agree" below, you are stating that you understand the risks and benefits as outlined above. You may stop at any point. If you should have any questions or need to debrief, you can contact the research, Erin Johnson, at eljohnson10@alaska.edu. Additional points of contact are provided on the letter you received.

Thank you so very much for your participation.

I agree

Please input your survey code here. This code is located at the end of the letter you received in the U.S. mail. This code will only be used to prevent you from receiving a reminder letter and will not be attached to your responses.

What is your age?

Years

What is your gender?

Female

Male

Transgender/ Other

What is the highest level of education you have completed?

High School / GED

Some College

2-year College Degree

4-year College Degree/ Bachelor's Degree

Master's Degree

Doctoral Degree

What is the degree or certification under which you work?

Behavioral Health Aide I

Behavioral Health Aide II

Behavioral Health Aide III

Behavioral Health Practitioner

Masters Counseling Psychology

Ph D Counseling Psychology

Masters Clinical Psychology

Ph.D Clinical Psychology

Masters Clinical Social Work

Psy D Clinical Psychology

Masters Marriage and Family Therapy

○ Other (please explain):

In what kind of community do you work?

☐ Urban community (such as Anchorage, Mat-Su Valley, Fairbanks, Juneau)

☐ Rural community connected to the the road or ferry system (such as Seward, Cordova, Tok, Kodiak)

☐ Rural community NOT connected to the road system (such as Bethel or Nome)

What is the zip code(s) where you primarily work? (This information will only be used to discern local populations and will not be attached to your responses)

How long have you been a mental healthcare professional (after receiving your degree or certification)?

_____ Years

_____ Months

How long have you been providing mental healthcare services in your community?

_____ Years

_____ Months

Approximately how many total hours per week do you spend providing individual, family, or group therapy?

_____ Hours

Approximately what percent of your workday is spent providing direct client services?

_____ %

Of those total hours providing therapy, approximately how many hours per week do you spend providing treatment to clients who have experienced trauma?

_____ Hours

Have you ever experienced a trauma similar to that of a client whom you have treated?

- ○ Yes
- ○ No

Approximately how many times total have you treated a client who has experienced a trauma similar to yourself?

- [0] number of clients
- [0] number of sessions

How many times in the past 30 days have you treated a client who had experienced a trauma similar to yourself?

- [0] Times

Have you ever had to provide services to a family member?

- ○ Yes
- ○ No

Have you ever had to provide services to a friend?

- ○ Yes
- ○ No

Have you ever had to provide services to a long-term acquaintance?

- ○ Yes
- ○ No

Have you ever had to provide services to a casual acquaintance?

- ○ Yes
- ○ No

On average, how many times do you interact with clients or the family members of clients outside of your work environment (e.g., attending community events, encountering clients in the grocery store)?

[0] times per week or

[0] times per month or

[0] times per year

Do you have a supervisor or another mental health provider with whom you trust to debrief?

○ Yes

○ No

On average, how many times per month do you get to discuss clients/debrief with another mental health provider?

[0] times per month

On average, how many hours per week do you engage in an activity for reducing work-related stress (e.g., exercise, spending time with friends, doing volunteer work, etc.)?

[0] hours per week

Please describe or list the various ways you engage in self-care.

Please rate the extent to which you agree or disagree with this statement: "I feel that I spend enough time engaging in self-care."

Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
○	○	○	○	○

Please rate the extent to which you agree or disagree with this statement: "I feel that I have an adequate amount of social support in general."

Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
○	○	○	○	○

To what extent would you find it embarrassing or feel hesitant to talk with a colleague about secondary trauma if is was happening to you?

Not at all embarrassed/hesitant	Not too embarrassed/hesitant	Somewhat embarrassed/hesitant	Very embarrassed/hesitant
O	O	O	O

Secondary Traumatic Stress Questionnaire (Bride 1999)

SECONDARY TRAUMATIC STRESS SCALE (Brian E. Bride, 1999)

The following is a list of statements made by persons who have been impacted by their work with traumatized clients. Read each statement then indicate how frequently the statement was true for you in the past thirty (30) days by circling the corresponding number next to the statement.

NOTE: "Client" is used to indicate persons with whom you have been engaged in a helping relationship. You may substitute another noun that better represents your work such as consumer, patient, recipient, etc.

Please note: This instrument was altered, with the author's permission, to obtain responses regarding the past 30 days instead of 7 days as it was originally designed.

	Never	Rarely	Occasionally	Often	Very Often
I felt emotionally numb.	O	O	O	O	O
My heart started pounding when I thought about my work with clients.	O	O	O	O	O
It seemed as if I was reliving the trauma(s) experienced by my client(s).	O	O	O	O	O
I had trouble sleeping.	O	O	O	O	O
I felt discouraged by the future.	O	O	O	O	O
Reminders of my work with clients upset me.	O	O	O	O	O
	Never	Rarely	Occasionally	Often	Very Often
I had little interest in being around others.	O	O	O	O	O
I felt jumpy.	O	O	O	O	O
I was less active than usual.	O	O	O	O	O

	Never	Rarely	Occasionally	Often	Very Often
I thought about my work with clients when I didn't intend to.	O	O	O	O	O
I had trouble concentrating.	O	O	O	O	O
I avoided people, places, or things that reminded me of my work with clients.	O	O	O	O	O

	Never	Rarely	Occasionally	Often	Very Often
I had disturbing dreams about my work with clients.	O	O	O	O	O
I wanted to avoid working with some clients.	O	O	O	O	O
I was easily annoyed.	O	O	O	O	O
I expected something bad to happen.	O	O	O	O	O
I noticed gaps in my memory about client sessions.	O	O	O	O	O

Would you be willing to participate in a focus group (via in person, videoconference, or telephonic means) with 4-6 other mental health professionals to hear the results of this survey and help the researcher better understand the results?

O Yes
O No

If you are willing to participate in the focus group, please provide your name and the best way to contact you in the future (telephone or email). Any contact information you provide will be immediately separated from your responses and not identify you in any way.

Thank you very much for participating in this survey.

Appendix H

Permission to Use the STSS by the Author

From: Brian Bride <bbride@uga.edu>
Date: August 5, 2010 6:33:16 AM GMT-08:00
To: Erin Johnson <eljohnson10@alaska.edu>
Subject: RE: The STSS

Hi Erin,

I am happy to grant you permission to use the STSS for your dissertation research. I am attaching some documents that may be useful as you proceed. Feel free to contact me with any questions as you proceed. Once you have concluded your research I would love to hear about your results.

Best, Brian

Brian E. Bride, Ph.D., LCSW
Associate Professor
The University of Georgia
School of Social Work
203 Tucker Hall
Athens, Georgia 30602

From: Erin Johnson [eljohnson10@alaska.edu]
Sent: Wednesday, August 04, 2010 9:23 PM
To: Brian Bride
Subject: The STSS

Dr. Bride,
I am a doctoral candidate in the Clinical-Community Ph.D. Program at the University of Alaska. I am examining secondary trauma in mental healthcare providers in Alaska for my dissertation. I am writing to ask if you would allow me to use the Secondary Traumatic Stress Scale in this study.
Thank you,
Erin Johnson

Appendix I

Permission to Alter the STSS by the Author

From: Brian Bride <bbride@uga.edu>
Date: September 9, 2010 5:51:20 AM GMT-08:00
To: Erin Johnson <eljohnson10@alaska.edu>
Subject: RE: The STSS

Hi Erin,

Yes, that is fine. Just make sure to note that you modified the instrument in this way.

Best, Brian

Brian E. Bride, Ph.D., LCSW
Associate Professor
The University of Georgia
School of Social Work
203 Tucker Hall
Athens, Georgia 30602

From: Erin Johnson [eljohnson10@alaska.edu]
Sent: Wednesday, September 08, 2010 9:53 PM
To: Brian Bride
Subject: Re: The STSS

Dr. Bride,
Would you be comfortable with me collecting data from providers on their experiences with STS over the past 30 days instead of past seven?
Thank you,
Erin Johnson

Appendix J

Complete Correlation Matrix

Bivariate Correlations among Predictor and Dependent Variables (Part 1)

	1	2	3	4	5	6	7	8	9	10
1. Age	--	.14*	.18**	-.19**	.01	.02	.68**	.47**	.03	-.03
2. Gender	.14*	--	.06	.02	.00	.06	.17**	.14*	.08	.07
3. Education	.18**	.06	--	.18**	-.28**	-.28**	.21**	.14*	-.15*	.05
4. Population of community	-.19**	.02	.18**	--	-.64**	-.56**	-.12*	.05	-.07	.08
5. Type of community by Census Bureau	.01	.00	-.28**	-.64**	--	.80**	.02	-.13*	-.05	-.12*
6. Type of community by self-report	.02	.06	-.28**	-.56**	.80**	--	.07	-.08	-.01	-.13*
7. Time as a MHP (in months)	.68**	.17**	.21**	-.12*	.02	.07	--	.65**	-.02	.02
8. Time as MHP in community (in months)	.47**	.14*	.14*	.05	-.13*	-.08	.65**	--	-.032	.13*
9. Hours per week providing direct client services	.03	.08	-.15*	-.07	-.05	-.01	-.02	-.03	--	.57**
10. Percent of workday providing direct client services	-.03	.07	.05	.08	-.12*	-.13*	.02	.13*	.57**	--
11. Hours per week providing trauma care	-.04	.00	.02	.01	-.14*	-.07	-.05	-.06	.44**	.32**
12. Similar trauma history to clients treated	.04	-.14*	-.02	-.09	.05	.07	.07	.03	.18**	.13*
13. Number of clients with similar trauma history	.02	-.08	.09	.02	-.050	-.01	.13*	-.03	.22**	.17**
14. Session w/ clients w/ similar trauma history	.03	-.10	.04	.10	-.08	.01	.13*	.05	.19**	.12*
15. Times treating clients with a similar trauma history (in past 30 days)	.02	-.06	.01	-.03	-.01	.02	.12*	.03	.25**	.21**
16. Provided services to a family member	.08	-.04	-.13*	-.12*	.09	.11	.01	.04	.03	.08
17. Provided services to a friend	.11	.11	-.23**	-.29**	.29**	.36**	.10	.04	.15*	.12*

18. Provided services to a long-term acquaintance	.10	.01	-.03	-.29**	.14*	.15*	.11	.04	-.01	.05
19. Provided services to a casual acquaintance?	.18**	.06	.03	-.30**	.25**	.21**	.20**	.15*	.13*	.16**
20. Total endorsed services to people known	.15*	.05	-.12*	-.33**	.25**	.28**	.15*	.09	.09	.13*
21.Interacting with clients out of work during the year	-.06	-.04	.03	-.21**	.26**	.27**	-.03	-.08	.01	.03
22. Trusted supervisor	-.02	.03	.12*	.11	-.12*	-.15*	.02	.10	.17**	.15*
23. Times debriefing per month	-.06	-.08	.09	.14*	-.03	-.07	.02	.07	.13*	.12*
24. Hours per week in self-care activities	-.09	-.00	.01	-.07	.21	.20	-.07	-.05	.01	-.01
25. Number of self-care activities	-.05	-.07	.01	-.13*	.13*	.07	.00	.02	.18**	.15*
26. Adequate amount of self-care	.09	.02	-.04	.06	.03	-.07	.17**	.13*	.00	.06
27. Adequate amount of social support	-.01	-.04	.01	.15*	-.11	-.12**	.03	.13*	-.05	.02
28. Embarrassed to discuss ST with a colleague	-.09	-.02	-.12*	-.08	.14*	.12*	-.10	-.08	-.13*	-.07
29. Total STSS Score	.03	-.03	-.00	-.19**	.08	.09	-.03	-.12*	-.04	-.17**
30. Total Intrusion Score	-.03	-.11	-.02	-.13*	.04	.05	-.05	-.10	-.07	-.14*
31. Total Avoidance Score	.02	.05	.01	-.18**	.08	.10	-.04	-.13*	.01	-.14*
32. Total Arousal Score	.04	-.04	-.02	-.18**	.10	.09	-.02	-.12*	-.05	-.13*

Bivariate Correlations among Predictor and Dependent Variables (Part 2)

TABLE 2	11	12	13	14	15	16	17	18	19	20	21
1. Age	-.04	.04	.02	.03	.02	.08	.11	.10	.18**	.15*	-.06
2. Gender	.00	-.14*	-.08	-.10	-.06	-.04	.11	.01	.06	.05	-.04
3. Education	.02	-.02	.09	.04	.01	-.13*	-.23**	-.03	.03	-.17*	.03
4. Population of community	.01	-.09	.05	.10	-.03	-.12*	-.29**	-.29**	-.30**	-.33**	-.21**
5. Type of Community by Census Bureau	-.14*	.05	-.05	-.08	-.01	.09	.29**	.14*	.25**	.25**	.26**
6. Type of community by self-report	-.07	.07	-.01	.01	.02	.107	.36**	.15*	.21**	.28**	.27**
7. Time as a MHP (in months)	-.05	.07	.13*	.13*	.12*	.01	.10	.11	.20**	.15*	-.03
8. Time as MHP in community (in months)	-.06	.03	-.03	.053	.03	.04	.04	.04	.15*	.09	-.08
9. Hours per week providing direct client services	.44**	.18**	.22**	.19**	.25**	.03	.15*	-.01	.13*	.09	.01
10. Percent of workday providing direct client services	.32**	.13*	.17**	.12*	.21**	.08	.12*	.05	.16**	.13*	.03
11. Hours per week providing trauma care	--	.10	.12*	.05	.12*	.06	.15*	.04	.15*	.13*	-.03
12. Similar trauma history to clients treated	.10	--	.20**	.20**	.31**	.08	.16**	.12*	.14*	.17**	-.04
13. Number of clients with similar trauma history	.12*	.20**	--	.67**	.44**	.01	.05	-.03	.09	.04	.06
14. Session w/ clients w/ similar trauma history	.050	.20**	.67**	--	.53**	.01	.02	-.02	.04	.01	.10
15. Times treating clients with a similar trauma history (in past 30 days)	.12*	.31**	.44**	.53**	--	.12*	.12*	.05	.13*	.14*	.01
16.Provided services to a friend	.06	.08	.01	.01	.12*	--	.41**	.40**	.21**	.65**	.01
17. Provided services to a friend	.15*	.16**	.05	.02	.12*	.41**	--	.49**	.39**	.77**	.18**

18. Provided services to a long-term acquaintance	.04	.12*	-.03	-.02	.05	.40**	.49**	--	.54**	.83**	.16*
19. Provided services casual acquaintance?	.150*	.14*	.09	.04	.13*	.21**	.39**	.54**	--	.72**	.13*
20. Total endorsed services to people known	.13*	.17**	.04	.01	.14*	.65**	.77**	.83**	.72**	--	.16**
21. Interacting with clients out of work during the year	-.03	-.04	.06	.10	.01	.01	.18**	.16*	.13*	.16**	--
22. Trusted supervisor	.11	.12*	.01	.06	.06	-.04	-.10	-.15*	-.06	-.12*	.04
23. Times debriefing per month	.04	.02	.12*	.23**	.20**	.06	-.06	-.06	-.06	-.05	.09
24. Hours per week in self-care	.02	.02	.10	.05	.07	.11	.13*	-.03	-.02	-.17**	.16**
25. Number of self-care activities	.02	.15*	.10	.18**	.21**	.03	.04	.12*	.15*	.11	.06
26. Adequate amount of self-care	-.13*	-.09	-.02	-.01	-.01	.00	-.06	-.15*	-.11	-.11	-.03
27. Adequate social support	.00	-.21**	-.16**	-.11	-.08	.08	-.07	-.07	-.04	-.02	-.09
28. Embarrassed to discuss ST	-.07	.01	.05	.00	-.03	-.03	.02	.03	-.01	.01	.03
29. Total STSS Score	-.01	.11	-.03	-.01	.07	.06	.09	.24**	.16*	.19**	-.02
30. Total Intrusion Score	-.07	.06	-.06	-.03	.03	.08	.06	.23**	.12*	.17**	.00
31. Total Avoidance Score	.03	.12*	-.01	.00	.08	.03	.10	.20**	.14*	.16**	-.03
32. Total Arousal Score	.00	.10	-.02	.00	.08	.06	.09	.22**	.15*	.18**	-.01

Bivariate Correlations among Predictor and Dependent Variables (Part 3)

	22	23	24	25	26	27	28	29	30	31	32
1. Age	-.02	-.06	-.09	-.05	.09	-.01	-.09	.03	-.03	.02	.04
2. Gender	.03	-.08	.00	-.07	.02	-.04	-.02	-.03	-.11	.05	-.04
3. Education	.12*	.09	.01	.01	-.04	.01	-.12*	.00	-.02	.01	-.02
4. Population of community	.11	.14*	-.07	-.13*	.06	.15*	-.08	-.19**	-.13*	-.18**	-.18**
5. Type of community by Census Bureau	-.12*	-.03	.21	.13*	.03	-.11	.14*	.08	.04	.08	.10
6. Type of community by self-report	-.15*	-.07	.20	.07	-.07	-.16**	.12*	.09	.05	.10	.09
7. Time as a MHP (in months)	.02	.02	-.07	.00	.17**	.03	-.10	-.03	-.05	-.04	-.02
8. Time as MHP in community (in months)	.10	.07	-.05	.02	.13*	.13*	-.08	-.12*	-.10	-.13*	-.12*
9. Hours per week providing direct client services	.17**	.13*	.01	.18**	.00	-.05	-.13*	-.0	-.071	.01	-.05
10. Percent of workday providing direct client services	.15*	.12*	-.01	.15*	.06	.02	-.07	-.17**	-.14*	-.14*	-.13*
11. Hours per week providing trauma care	.11	.04	.02	.02	-.13*	.00	-.07	-.01	-.07	.03	.00
12. Similar trauma history to clients treated	.12*	.02	.02	.15*	-.09	-.21**	.01	.11	.06	.12*	.10
13. Number of clients with similar trauma history	.01	.12*	.10	.10	-.02	-.16**	.05	-.03	-.06	-.01	-.02
14. Session w/ clients w/ similar trauma history	.06	.23**	.05	.18**	-.01	-.11	.00	-.01	-.03	.00	.00
15. Times treating clients with a similar trauma history (in past 30 days)	.06	.20**	.07	.21**	-.01	-.08	-.03	.07	.03	.08	.08
16. Provided services to a family member	-.04	.06	.11	.03	.00	.08	-.03	.06	.08	.03	.06
17. Provided services to a friend	-.10	-.06	.13*	.04	-.06	-.07	.02	.09	.06	.10	.09

18. Provided services to a long-term acquaintance	-.15*	-.06	-.03	.12*	-.15*	-.07	.03	.24**	.23**	.20**	.22**
19. Provided services to a casual acquaintance?	-.06	-.06	.02	.15*	-.11	-.04	-.01	.16*	.12*	.14*	.15*
20. Total endorsed services to people known	-.12*	-.05	.17**	.11	-.11	-.02	.01	.19**	.17**	.16**	.18**
21.Interacting with clients out of work during the year	.04	.09	.16**	.06	-.03	-.09	.03	-.02	.00	-.03	-.01
22. Trusted supervisor	--	.26**	.06	.11	.03	.09	-.20**	-.01	-.01	.00	-.01
23. Times debriefing per month	.26**	--	.15	.23**	-.02	.10	-.18**	.04	.07	.03	.040
24. Hours per week in self-care activities	.06	.15	--	.20**	.10	.07	-.16*	.03	.04	.03	.02
25. Number of self-care activities	.11	.23**	.20**	--	.00	.11	-.24**	.06	.09	.02	.08
26. Adequate amount of self-care	.03	-.02	.10	.00	--	.51**	-.13*	-.31**	-.24**	-.32**	-.28**
27. Adequate amount of social support	.09	.10	.07	.11	.51**	--	-.26**	-.37**	-.28**	-.42**	-.28**
28. Embarrassed to discuss ST with a colleague	-.20**	-.18**	-.16*	-.24**	-.13*	-.26**	--	.20**	.25**	.23**	.23**
29. Total STSS Score	-.01	.04	.03	.06	-.31**	-.37**	.25**	--	.86**	.95**	.91**
30. Total Intrusion Score	-.01	.04	.04	.09	-.24**	-.28**	.25**	.86**	--	.72**	.69**
31. Total Avoidance Score	.00	.03	.03	.02	-.32**	-.42**	.23**	.95**	.72**	--	.79**
32. Total Arousal Score	-.01	.04	.02	.08	-.28**	-.28**	.23**	.91**	.69**	.79**	--

*Correlation is significant at the 0.05 level (1-tailed).
**Correlation is significant at the 0.01 level (1-tailed).
2. Gender 0=male, 1=female
3. Education 1=high school/GED to 6=Doctoral Degree
4. Type of Community 1=urban, 2=rural, connected to the road system, 3=rural not connected to the road system
5. Census Bureau Type of Community 1=metropolitan, 2=micropolitan, 3=rural
12. Similar trauma history 0=no, 1=yes
21. Trusted Supervisor 0 = no, 1= yes
26. Adequate Amount of Self-Care 1= Strongly Disagree to 5= Strongly Agree
27. Adequate Amount of Social Support 1=Strongly Disagree to 5=Strongly Agree
28. Embarrassed to Discuss ST 1=Not at all embarrassed/hesitant to 4= Very embarrassed/hesitant

Appendix K

Qualitative Codebook

Node 1: Definitions of Secondary Trauma (ST)
1. How they notice ST in themselves (feelings within themselves)
2. How they notice ST in others (behaviors of others)

Node 2: Sources of ST
1. Sources of ST – Medicaid/ Paperwork Requirements
2. Sources of ST – Isolation
3. Sources of ST – Lack of Support from Organization -
   Organization/staff is generally unsupportive
   Need for training on ST
   No housing assistance
   No good orientation to paperwork
   Need for Employee Assistance Programs
4. Sources of ST – Lack of Support from Supervisors
5. Sources of ST – Treatment of a family member
6. Sources of ST – Little assistance due to lack of counselors or other resources
7. Sources of ST – Frequent exposure to traumatic stories
8. Sources of ST – Pile up of stressors = more ST (not one particular event)
9. Sources of ST – Not being prepared for what was encountered (when moving to AK, when seeing what clients are going through)

Node 3: Is ST prevalent in AK providers?
1. Agree that ST is prevalent in AK providers

Node 4: Training on ST
1. Not Enough Training in ST
2. Got Training on ST

Node 5: What can help to reduce ST
1. Help with transition – housing
2. A supervisor who has experience in AK
3. Stress debriefings
4. Hobbies/ art
5. Talking circles/ Employee Assistance Programs/ debriefing with other professionals (not supervisors)

Node 6: How people adapt to ST?
1. Withdraw from emotional involvement in clients

Node 7: Effects of ST

1. Withdrawing and therefore feeling less effective as a clinician
2. Health problems

Node 8: Who is susceptible to ST?

1. Personality traits of people who become clinicians
2. Trauma history of the clinician
3. New clinicians
4. Being is a remote area (Not the causes of ST but an acknowledgement that rural providers are more traumatized)

Node 9: Advice to future clinicians

1. Don't push yourself to the breaking point
2. Remind yourself of the importance of your work
3. Develop good self-care techniques
4. Be a part of your community
5. Don't be a therapist

Appendix L

University of Alaska Anchorage Institution Review Board Approval Letter

Research & Graduate Studies
University of Alaska Anchorage

3211 Providence Drive
Anchorage, Alaska 99508-4614
T 907.786.1099, F 907.786.1791
www.uaa.alaska.edu/research/ric

DATE: September 15, 2011

TO: Erin Johnson, MS
FROM: University of Alaska Anchorage IRB

PROJECT TITLE: [213327-2] Secondary Trauma in Mental Healthcare Professionals in Alaska

SUBMISSION TYPE: Revision

ACTION: APPROVED
DECISION DATE: September 15, 2011
EXPIRATION DATE:
REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited review

Your proposal received an expedited review and was granted approval with minor revisions. Thank you for the copy of these revisions.

Therefore, in keeping with the usual policies and procedures of the UAA Institutional Review Board, your proposal is judged as fully satisfying the U.S. Department of Health and Human Services requirements for the protection of human research subjects (45 CFR 46 as amended/revised). This constitutes approval for you to conduct the study.

This approval is in effect for one year. If the study extends beyond a year from the date of this submission, you are required to submit a progress report and to request continuing approval of your project from the Board. At the conclusion of your research, submit the required final report to the IRB. These report forms are available on IRBNet.

Please report promptly proposed changes in the research protocol for IRB review and approval. Also, report to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

On behalf of the Board, I wish to extend my best wishes for success in accomplishing your objectives.

Sincerely,

Dianne Toobe, PhD

Co-Chair, Institutional Review Board

Appendix M

Alaska Area Institution Review Board Approval Letter

Alaska Area Institutional Review Board

4315 Diplomacy Drive - RMCC
Anchorage, AK 99508
Phone: (907) 729-3924

DATE: October 6, 2011

TO: Erin Johnson, M.S.
Principal Investigator
PO Box 725
Nome, Alaska 99672

FROM: Alaska Area Institutional Review Board (IHS IRB #2)

STUDY TITLE: [221695-1] Secondary Trauma in Mental Healthcare Professionals in Alaska
IRB REFERENCE #: 2011-02-005
SUBMISSION TYPE: New Project

ACTION: APPROVED
APPROVAL DATE: September 20, 2011
EXPIRATION DATE: September 19, 2012
REVIEW TYPE: Expedited

REVIEW CATEGORY: Expedited

Dear Ms. Johnson:

The Alaska Area Institutional Review Board has given approval through to the protocol 2011-02-005 Secondary Trauma in Mental Healthcare Professionals in Alaska. Tribal approval is required in addition to IRB approval. The protocol was approved on September 20, 2011 and has an **expiration date of September 19, 2012.**

As a reminder, the protocol and all accompanying documents **may not have modifications** for this decision to remain valid. It is your responsibility as Principal Investigator (PI) to maintain the status of your project by tracking and monitoring all activities related to the protocol. All research approved by the Alaska Area IRB is subject to 45 CFR 46 "Protection of Human Subjects" regulations, the US Food and Drug Administration regulations and the principles of the Belmont Report. Investigators are expected to be familiar with these provisions and adhere strictly to all requirements. You are required to have all personnel involved in the research complete the training at www.citiprogram.org, once every 36 months, and retain your completion certificates from the Collaborative Institutional Training Initiative (CITI).

Prior to making any changes to the protocol you must receive approval from the Alaska Area IRB. The IRB does not accept modifications and the Status Report and Renewal Application at the same time. Please ensure that project information is complete and submitted to the IRB using the electronic submission process at IRBNet at least four weeks prior to the expiration date of the project. In addition remember that the IRB agenda is closed on the first day of each month; all complete submissions / received after the first day of each month will be placed in the IRB queue for the next IRB meeting.

The Alaska Area IRB has moved to an electronic submission process using IRBNet. To submit to the IRB proceed to IRBNet (www.irbnet.org) and log in to your existing project. The continuing review information must include but not be limited to the Alaska Area IRB Status Report and Renewal Application forms, the current IRB approved protocol, a short abstract of the protocol, a current copy of the consent/assent forms, and a cover letter to the IRB signed by the principal investigator. Submit to the Alaska Area

Institutional Review Board (I.H.S. IRB #2) by uploading into IRBNet and add each item to the project. Send a single paper copy of all items submitted in IRBNet to the IRB Office for the official protocol file, and inform the IRB by letter when the protocol is complete/closed.

As a reminder, the IRB must review and approve all human subjects' research protocols at intervals appropriate to the degree of risk, but not less than once per year. Per 45 CFR 46.109(e), there is no grace period beyond one year from the last IRB approval date unless the protocol approval period is shorter than one year.

It is your responsibility as Principal Investigator (PI) to maintain approval status for your project by tracking, renewing and obtaining IRB approval for all modifications to the protocol and the consent form. Keep this approval in your protocol file as proof of IRB approval and as a reminder of the expiration date. To avoid lapses in approval of your research which will result in suspension of participant enrollment and/or termination of the protocol submit the protocol continuation request at least 4 weeks prior to the **expiration date of September 19, 2012.**

All research involving staff, patients, or resources at the Alaska Native Medical Center (ANMC) must be reviewed and approved by ANMC's parent organizations after the Alaska Area Institutional Review Board approval is obtained. The parent organizations of ANMC are the Alaska Native Tribal Health Consortium (ANTHC) and the Southcentral Foundation (SCF). Tribal review and approval is required for all research protocols prior to initiation. Any manuscripts or abstracts for publication or presentations involving ANMC staff, patients, or resources must also be reviewed and receive tribal approval prior to submission. To initiate tribal review please contact rampreview@anthc.org, this is a shared SCF and ANTHC email group. Please allow at least 8 weeks for tribal review and approval.

If you have further questions for the Alaska Area IRB you may contact us via email at: akaalaskaareainstitutionalreviewboard@anthc.org.

Sincerely,

Terry J. M. Powell
Alaska Area Institutional Review Board
IRB Administrator
4315 Diplomacy Drive RMCC
Anchorage, Alaska 99508

Appendix N

Alaska Native Tribal Health Consortium's Health Research Review Committee

Approval Letter

UNIVERSITY OF ALASKA

Erin Johnson <eljohnson10@alaska.edu>

Proposal_Johnson_Secondary Trauma in Mental Healthcare Professionals in Alaska

1 message

Wolfe, Abbie <awolfe@anthc.org> Tue, Nov 15, 2011 at 4:23 PM
To: Erin Johnson <eljohnson10@alaska.edu>
Cc: "Corbett, Sharon" <SCorbett@anthc.org>

Dear Ms. Johnson,

Your proposal "Secondary Trauma in Mental Healthcare Professionals in Alaska" was approved November 7, 2011 by the Alaska Native Tribal Health Consortium (ANTHC) Health Research Review Committee (HRRC) on behalf of the ANTHC Board of Directors.

We look forward to seeing the results of your study when they become available. This completes the ANTHC research review process for this proposal.

Sincerely,

Abbie Wolfe

Abbie Willette Wolfe

Alaska Native Tribal Health Consortium

Division of Community Health Services

4141 Ambassador Dr., Suite 127

Anchorage, AK 99508

(907) 729-2901

Appendix O

De-identified Regional Approval Letter to Collect Data from Region's Behavioral Health Aides

Erin Johnson, MS, Ph.D. Candidate
PO Box 725
Nome, AK 99762

February 29, 2012

Dear Ms. Johnson,

The Research reviewed your proposal, "Secondary Trauma in Mental Healthcare Professionals in Alaska," during their December 2011 meeting. In January 2012, the Board of Directors approved your proposal.

Included with this letter is a copy of the Policies and Procedures for your review and consideration. Please note, ***retains the right to review the report of the Research results and work with the researcher to make modifications, as necessary, before the report is finalized.*** Therefore, it will be incumbent upon you to provide a draft version of your dissertation to the Committee for review and full board approval, before submitting it to the University of Alaska Anchorage for publication.

We look forward to seeing the results of your study when they become available. If you have any questions or concerns, feel free to contact me.

Sincerely,

Community Health Services