To the Graduate Council:

I am submitting herewith a dissertation written by Elizabeth Ann Fiske entitled "Self-Transcendence and Spiritual Well-Being in Participants of Short- Term, Faith- Based, Foreign, Health Care Missions." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

____

Marian W. Roman, Major Professor

We have read this dissertation
and recommend its acceptance:

____

John G. Orme

____

Kenneth D. Phillips

____

Susan Speraw

Accepted for the Council:

____

Carolyn R. Hodges
Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

SELF- TRANSCENDENCE AND SPIRITUAL WELL-BEING IN PARTICIPANTS OF SHORT-TERM, FAITH-BASED, FOREIGN, HEALTH CARE MISSIONS

A Dissertation

Presented for the

Doctor of Philosophy

Degree

University of Tennessee, Knoxville

Elizabeth Ann Fiske

May 2009

Acknowledgment

I am indebted to my committee chairperson, Dr. Marian Roman and my dissertation committee, Dr. John Orme, Dr. Susan Speraw and Dr. Ken Phillips. Thank you for your support, guidance and mentoring throughout my graduate program as well as this project. Your expertise has been invaluable.

I would like to thank Carrie Springer for her assistance with mrInterview®. I would also like to thank Dr. Pamela Reed for use of her instrument, the STS scale.

Abstract

The purpose of the study was to investigate the presence and possible relationship of self-transcendence and spiritual well-being in persons who have completed at least one short-term, foreign, health care mission (SFHCM). There is a paucity of literature related to SFHCM; however, these trips are becoming increasingly commonplace. In the anecdotal literature, SFHCM are often described as life changing. The descriptions of this growth experience in the literature are quite similar to the concept of self-transcendence as defined in the nursing literature.

Reed's (2003) middle range theory of self-transcendence was used as the theoretical framework for this study. The major concepts of the theory are vulnerability, self-transcendence and well being. Self-transcendence (ST) has been studied in a number of different populations but has not been documented in mission participants. A mixed methods design was utilized in this study. Quantitative data, including demographic variables and scores on the Self-Transcendence Scale (STS) and the Spirituality Index of Well-Being (SIWB), were collected and analyzed. Qualitative responses to open-ended questions provided a better understanding of mission experiences.

Self-transcendence scores were higher in mission participants than in participants of comparison studies. Self-transcendence scores were higher in women than men, consistent with previous studies. Self-transcendence scores correlated with Spirituality Index of Well-Being scores. Participants described mission experiences consistent with the multi-dimensional aspects of ST. Participants described situations in which they felt vulnerable but had low scores on a quantitative measure of vulnerability. Findings from this study may be applied to training

activities for future SFHCM and potentially to other relief endeavors such as disaster response and humanitarian efforts.

Table of Contents

Chapter 1- Introduction 1
Differences in Mission Teams 2
Short-term, Faith-based Foreign Health Care Missions 4
Personal Interest: Case in Point...5
Problem...7
Purpose of the Study..8
Conceptual and Operational Definitions...9
Methods 13
Chapter 2- Literature Review 15
Military, Humanitarian Mission and Disaster Research..15
Anecdotal Reports 18
Self-Transcendence Research 18
Spiritual Well-Being..26
Chapter 3- Methods...29
Study design...29
Research Questions 30
Participants...31
Measures 35
Procedures..37
Reliability and Validity..44
Chapter 4- Findings...46
Quantitative Data...48
Qualitative Data...54
Summary 61
Chapter 5- Discussion 63
Strengths and Limitations 64
Self-Transcendence Theory 67
Vulnerability 71
Spiritual Well-Being..73

Comparisons to Non-Faith Based Mission Studies 74
Implications 76
Conclusion 82
References 83
Appendixes 92
Appendix A- Study Design 93
Appendix B- Call for Participants 94
Appendix C- Self-Transcendence Scale 95
Appendix D- Spirituality Index of Well-Being 96
Appendix E- Demographic Data Collection 97
Appendix F Comparision Studies 99
Appendix G- Countries in which missions were conducted 100
Appendix H-Demographic Data 101
Appendix I- STS and Age Correlations 105
Appendix J- STS and Gender 106
Appendix K- SIWB and Gender 108
Appendix L- STS and SIWB Correlations 110
Appendix M- Vulnerability and STS 111
Vita 118

List of Tables

1. Examples of Quotes from Anecdotal Articles ………………………………………… 21

2. Examples of Self-Transcendence Research …………………………………………… 24

3. Research Hypotheses ……………………………………………………………….. 44

4. Selected Demographic Characteristics of Participants…………………………………. 50

5. STS Comparisons with other Studies…………………………………………………... 54

6. SIWB Comparisons with other Studies……………………………………….………... 56

Chapter 1- Introduction

In the last two decades, unprecedented advancements in transportation, communication and information technology have created an exponential increase in opportunities for nurses within the realm of global health care. With the advent of instantaneous news, real time reports of wars, natural disasters and humanitarian crises are immediately broadcast to a large audience. Direct communication with individuals in remote areas of the world is now possible. The decreased expense and relative ease of travel has resulted in the ability of a large segment of the population to participate in volunteer efforts around the world.

While nurses have long been an integral part of the military, in recent years other avenues for international aid have opened. Nurses can participate in disaster response through government agencies including the Federal Emergency Management Agency (FEMA) and Homeland Security by becoming members of teams such as disaster medical assistance teams (DMAT) and local Medical Reserve Corps (MRC). Nurses can become involved in humanitarian activities ranging from coordinated international relief efforts through organizations such as the Red Cross or regional organizations such as Remote Area Medical (RAM) that provide services locally, regionally and internationally. Faith-based organizations are providing services that range from comprehensive disaster responses to small, health care missions. Now more than ever, with increased participation, opportunities for nurses to assume leadership roles in military, governmental, non-governmental (NGO) and faith-based missions are increasing.

While the spectrum of humanitarian, charitable and faith-based missions varies, some commonalities exist. Individuals are voluntarily placing themselves in vulnerable positions in austere, often dangerous, environments to provide assistance to people who might otherwise go

untreated or unaided. Volunteers are rarely compensated for their efforts and frequently pay their own expenses to be a part of these endeavors.

In an era of increased emphasis on evidence-based practice, there is a paucity of literature regarding volunteer, humanitarian and/or faith-based mission activities highlighting the significant need for research in this area. Information learned from any type of mission, whether it is military, humanitarian or faith-based, holds the possibility of transferability to other service settings.

While a dearth of research is available related to mission activity, some anecdotal literature exists. Commonalities in the anecdotal literature are that accounts by participants tend to be discussions of the deplorable conditions encountered and the profound effect the mission had on participants. The focus of this study was on the latter, specifically the concepts of self-transcendence and spiritual well-being of participants who volunteer in short-term, faith-based, foreign, health care missions (SFHCM).

Differences in Mission Teams

Although there are some commonalities across all types of mission activities, there are distinct differences between SFHCM and other types of relief efforts. Faith- based teams may differ from other relief groups in a number of ways. For example, military humanitarian missions are conducted by soldiers who all meet certain physical and training standards. Military groups are more likely to have adequate equipment, technology support, supplies and funding as well as a means to provide security for their missions. Volunteer health care missions that originate from professional and student groups often have a good deal of uniformity in terms of skill levels of participants. SFHCM teams will likely include team members with greater variations in levels of education and experience, physical health and primary care experience.

The membership of SFHCM teams providing health care will usually include licensed health care providers such as registered nurses and physicians; however, their individual levels of and types of experience can vary. For example, a nurse may have extensive operating room experience but may never have worked with patients in a clinic or outpatient setting. A physician may have years of experience as a cardiologist but very limited experience with infectious diseases, much less tropical diseases. Frequently spouses of these health care providers are also included in teams and they may not have any experience in any aspect of health care delivery. Age and health status of individual volunteers can vary widely in teams as well.

Mission settings can drastically vary in terms of location, accommodations and barriers to care. Health care delivery can be conducted in undeveloped environments or can take place in safe, clean, well equipped sites. The mission may take place in an established clinic site with at least some equipment in place or the team may be responsible for securing a site and equipping the clinic. Translators and guides may be necessary or the population being served may be culturally similar and a language barrier may not exist.

SFHCMs are often conducted in third world settings. Such mission environments contrast sharply with the usual living standards of mission volunteers, often lacking essential infrastructure, basic utilities and modern conveniences. Communities most in need of services are often those where safety concerns can arise due to natural disasters, communicable disease exposure and violence stemming from a variety of issues such as political instability or gang activity. Mission participants voluntarily travel to locations where they witness the effects of poverty, malnutrition and rampant disease firsthand.

In summary, SFHCM members are often more vulnerable than other types of aid teams. They may not have had extensive training such as a military or governmentally sponsored group prior to a mission. Faith-based teams might have fewer exclusions of willing volunteers, allowing for greater diversity of physical health or health care experience of team members compared with other groups. Overall, faith-based teams with their lack of infrastructure and security might be more vulnerable in terms of operating in less than ideal environments than other groups. This study focused on participants in SFHCM because there is less research about this group of volunteers and this field is burgeoning.

Short-term, Faith-based Foreign Health Care Missions

Participating in a mission to a foreign country formerly involved a long-term commitment, relocation and some degree of immersion in another culture. In the past, this type of volunteerism involved only a few individuals who were willing and able to drastically alter their lifestyles and whom the church could afford to support financially. Although there is no comprehensive data source for the overall number of SFHCM being conducted, numbers from individual organizations document the growth of SFHCM. For example, the Parish Twinning Program of the Americas (PTPA) began in 1978 with a one-to-one link between one church in the southeastern United States and a parish in Haiti and has grown to over 340 collaborations between churches in the United States and Central America (PTPA, 2007). Currently, SFHCMs afford an opportunity for most members of a congregation to participate directly or indirectly in these endeavors.

The increase in the number of SFHCMs in spite of the difficult working conditions encountered by participants during these trips raises a multitude of questions. The personal impact mission trips have on those who volunteer to serve on these trips is an area of personal

interest that I explored in this study. In this introductory chapter I will discuss reasons for my interest in SFHCM. The problem area will be stated and the purpose of the study will be explicated. The research questions will be posed and assumptions, limitations and delimitations will be delineated. Finally, the potential significance of this study to nursing will be discussed.

Personal Interest: Case in Point

I have had a long-standing interest in issues in Haiti and in recent years have become involved in faith-based programs in Haiti. Personal experience with a SFHCM in Haiti has helped me gain a greater appreciation for issues and characteristics that are unique to that country that could likely impact a health care mission. It is used herein as an illustration.

Haiti's economic situation remains desperate and the country is classified on the United Nations' list of the 50 least developed countries in the world based on annual gross domestic product (GDP), quality of life and economic vulnerability (UNDP, 2006). Many Haitians do not have access to basic services with an estimated 90% without access to electricity and 54% without access to clean water sources (Taft-Morales, 2005). Health indicators in Haiti such as maternal and infant mortality rates, malnutrition rates and number of individuals with HIV/AIDS are the worst in the Western Hemisphere (Farmer, 2005; WHO, 2006).

The U.S. State Department has posted travel warnings for Haiti citing potential risks including spontaneous public demonstrations, lack of local police protection, multiple violent kidnappings of foreigners, random violent crimes and intermittent roadblocks set by armed gangs (U.S. Department of State, 2007). Infrastructure and environmental problems make travel within the country logistically difficult and even small amounts of rain can trigger flash flooding making roads impassable. Facilities for conducting primary health care can be very rudimentary

without functioning utilities. Clean running water and electricity are generally unavailable or operational on a limited basis.

Haiti is not alone on the world stage in terms of the enormity of need; many countries lack basic resources. SFHCM are conducted in geographic areas with significant need in spite of almost insurmountable obstacles to provide resources to these locations. Mission locations are potentially dangerous in terms of security concerns, disease exposure, lack of infrastructure and propensity for natural disasters and accidents placing those who volunteer to participate in the missions in very vulnerable positions. Missions originating from the East Tennessee region have recently been conducted in some of the most dangerous locations in the world, Haiti, Sudan and Iraq, all of which have current U.S. State Department Travel Warnings advising U.S. citizens against travel to these areas (U.S. Department of State, 2007).

In my personal conversations with people who have participated in SFHCMs, participants usually begin by discussing the deplorable conditions they encountered and the immense needs of the people they served. Graphic descriptions of third world squalor and throngs of individuals seeking treatment ensue. Many health problems are direct results of lack of clean water, basic sanitation and any semblance of a diet comprised of the four basic food groups. After this description of the locals' living conditions, the focus usually shifts to the challenging living and working conditions of the mission team.

I recall a story that a mission participant told me at a conference for Haiti missions. Her mission team had flown into the Port au Prince airport, an airport frequently highlighted on warning posters at security checkpoints in U.S. airports. After getting through the airport, collecting their luggage and making their way through the throngs of desperate people that crowd just outside the security barriers at the airport in hopes of begging a dollar, the team made their

way out of the city. Traveling through Port au Prince is slow and difficult as this city of approximately 2 million residents has crumbling streets, few if any stoplights and no obvious traffic right of way rules. After the team's two hour journey through the city, travel slowed even more on the unpaved road to the small village where they would set up their clinic. With each stage the conditions worsened. After another three hours on the dirt and gravel road a light rain began to fall. The last two miles of the team's trek to the village had to be accomplished on foot due to the poor road conditions. When the team was in sight of the village, the last hurdle on their journey was realized. When it rains in Haiti, easily fordable creeks quickly change and a creek bed that normally was either dry or very shallow was now a waist high rushing river. The villagers saw the approaching team and without hesitation rushed into the river to meet the approaching volunteers. The woman telling the story was not tall and the water level for her was chest high. Two villagers sensed her panic and hoisted her on their shoulders, carrying her across the river to safety.

This woman's moving story is not unlike many I have heard from mission participants. In my experience, mission team members sum up discussions of their trips by stating how much they valued participating in the mission. The experiences are described as life-changing and very commonly participants express the sentiment that they benefited more from the mission than the people they served. Mission experiences tend to be very profound for participants, and their comments suggest that personal growth and insight were gained from these trips.

Problem

SFHCMs are increasing in frequency; however, there is a paucity of scholarly literature related to these experiences. The same phenomenon of personal growth is repeatedly described in the small volume of anecdotal literature on this subject as in conversations I have had

personally with mission participants. It seems that these individuals, who have willingly placed themselves in vulnerable positions to provide primary health care in third world countries, report profound personal growth through participating in these trips. Their descriptions of this growth experience are quite similar to the concept of self-transcendence as defined in the nursing literature. Self-transcendence is defined by Reed as "the expansion of self-boundaries in multi-dimensional ways: inwardly in introspective activities; outwardly through concerns about other's welfare; temporally whereby the perceptions of one's past and future enhance the present; and transpersonally through connections with a higher or greater dimension" (Reed, 2007, p. 1). Self-transcendence (ST) has been studied in a number of different populations but has not been documented in mission participants. As self-transcendence has been found to be associated with well-being and improved quality of life, documenting the presence of self-transcendence in mission volunteers may illuminate ways to promote personal growth and well-being among mission participants as well as volunteers in other types of charitable, relief and humanitarian efforts

Purpose of the Study

The purpose of the study was to investigate the presence and possible relationship of self-transcendence and spiritual well-being in persons who have completed at least one SFHCM. In so doing, the use of Reed's (2003) middle range theory of self-transcendence was extended to a new and different population. In addition, some lessons learned from participating in missions emerged in this study.

Conceptual Framework

Reed's middle range theory of self-transcendence was used as the conceptual framework for this study and will be described in greater detail in Chapter Two (Reed, 2003). Self-

transcendence is a developmental theory with the primary premise that development is influenced more by life events than by the passage of time. According to the theory, self-transcendence helps people organize challenges into meaningful systems to sustain well-being. The major concepts of the theory are vulnerability, self-transcendence and well-being (Figure 1).

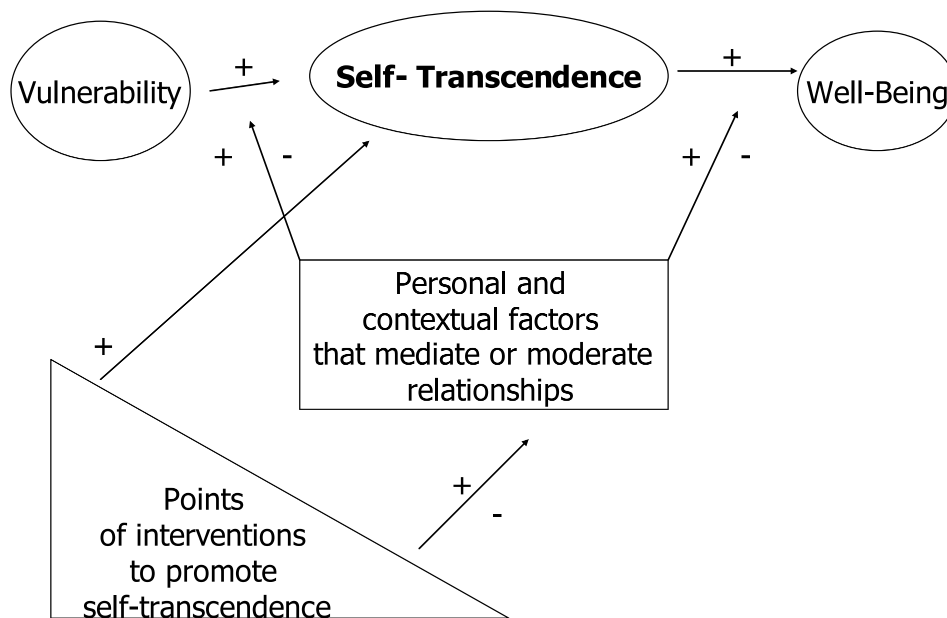
The main propositions in the theory of self-transcendence will be briefly described. Increased levels of vulnerability are related to increased self-transcendence albeit not necessarily in a linear relationship. Self-transcendence is positively related to well-being. Personal and contextual factors such as age and gender may influence the relationship between vulnerability, self-transcendence and well-being. Nursing actions are points of intervention that can influence self-transcendence (Coward, 2006).

Conceptual and Operational Definitions

Vulnerability

Vulnerability is defined by Reed (2003) as awareness of personal mortality within the broad context of experiencing a life crisis such as parenting, chronic illness or disability. Vulnerability can include situations in which personal inadequacies are exposed. All these life events represent situational vulnerability which, in Reed's model, may result in personal development (Reed, 2003).

Thus, in the studies utilizing Reed's theory, vulnerability has been operationalized contextually. For example, in many of the early studies using this theory, vulnerability was defined as facing one's own mortality and operationalized as being elderly or having a terminal illness such as HIV or cancer. In more recent studies, vulnerability has been defined in a much broader developmental context and has been operationalized as a life crisis or developmental hurdle such as being homeless and parenting.



Adapted from Reed, 2003.

Figure 1

Reed's Theory of Self-Transcendence

Vulnerability was assumed and the degree of vulnerability perceived by individuals was not measured in most of the studies to date using Reed's theory. Reed acknowledges the possibility that self-transcendence may not occur if an individual perceives very high levels or very low levels of vulnerability (Reed, 2003). Further investigation of this important variable may contribute to a better understanding of this aspect of the theory.

Many aspects of participating in a mission could contribute to a perception of vulnerability. While basic safety concerns might be common for travelers, other factors include traveling to a third world country, experiencing third world living conditions, providing healthcare in an unfamiliar, poorly equipped setting and being exposed to communicable diseases. Participation in a mission is consistent with Reed's definition of a "life event that heightens one's sense of mortality, inadequacy or vulnerability" (Reed, 2003). For the purpose of this study vulnerability was operationalized as the degree to which participants felt unsafe, vulnerable or inadequate during their mission trip.

Self-transcendence

Self-transcendence occurs within the context of vulnerability (Coward, 2006). Reed defines self-transcendence "the expansion of self-boundaries in multi-dimensional ways: inwardly in introspective activities; outwardly through concerns about other's welfare; temporally whereby the perceptions of one's past and future enhance the present; and transpersonally through connections with a higher or greater dimension (Reed, 2007, p. 1). Reed's conceptual definition of self-transcendence was used in this study and was operationalized as scores on the Self-Transcendence Scale (STS).

Well-being

Self-transcendence has been correlated with well-being and is theorized to be a predictor and/or a resource for well-being (Reed, 2003). Well-being is broadly defined by Reed (2003, p. 148) as "the sense of feeling whole and healthy, in accord with one's own criteria for wholeness and well-being". In the studies utilizing Reed's theory, well-being has been further defined in a number of ways; however, this concept generally is viewed in an abstract context rather than in a primarily physical domain.

Reed acknowledges that "indicators for well-being are as diverse as are human perceptions of health and wellness" (Reed, 2003, p. 148). Likewise for each study, well-being has been defined and operationalized as a particular dimension of this broad concept salient to the population being studied. For example, in a population of liver transplant patients well-being was defined as quality of life in terms of life satisfaction and well-being was operationalized using Ferrans and Power's Quality of Life Index (Bean & Wagner, 2004). Ellermann and Reed (2001) defined well-being as emotional well-being and mental health and operationalized this concept as lack of depression measured by the Center for Epidemiological Studies-Depression Scale (CES-D). Well being has also been defined as "existential satisfaction with one's life" and has been measured using the Index of Well-Being (IWB) in a population of homeless adults (Runquist & Reed, 2007, p. 8).

For the purpose of this study, a definition of well-being consistent with Reed's theory was chosen. Well-being was conceptualized within the spiritual domain in this study because the context of the study is primarily spiritual and the population being studied was participants of SFHCMs. Well-being was defined as a perceived feeling of spiritual wholeness and well-being and was measured using the Spirituality Index of Well-Being (SIWB) (Daaleman & Frye, 2004).

Methods

A mixed methods design was utilized in this study. The research questions, assumptions, limitations and delimitations will be presented. The methods will be discussed in greater detail in Chapter Three.

Research Questions

The research questions were:

1. What are the levels of self- transcendence and spiritual well-being in this sample of mission participants and how do levels of self-transcendence in mission participants compare with self-transcendence levels in other populations that have been studied?
2. What are the relationships between self-transcendence, spiritual well-being and demographic variables (age, gender and number of mission trips in which an individual has participated)?
3. What factors and experiences do participants report that provide evidence of self-transcendence during and following the mission experience?
4. What lessons have mission participants learned about participating in missions?
5. What experiences do participants describe as evidence of vulnerability during their mission experience?

Assumptions

Several assumptions underlie this study. First, it was assumed that a major goal of the mission was to provide the best level of health care possible given the limitations of the environment. In addition it was assumed that health care providers genuinely wanted to meet the health needs of the recipients of care and wanted to provide compassionate, quality care. It was assumed that the sponsoring churches wanted to provide safe environments from which their

teams conducted the missions and wanted to provide the optimal quality of care possible with the limitations of the sites they are serving. It was assumed that there might be cultural differences between providers and recipients of care. Finally, since the missions originated from and were sponsored by faith-based organizations, proselytization may have been a primary goal.

Limitations and Delimitations

The study was delimited to participants of SFHCM who were eighteen years of age or older. Participants must have had access to a computer and the internet and must have been able to read and write English. Participation was limited to individuals who reside in the United States. Participation was not delimited by the location of the mission trip except that the trip must have involved travel outside of the United States. Participation was not delimited by when the mission trip occurred, whether the participant was actively practicing a particular faith or whether the participant was affiliated with the faith-based group that sponsored the mission trip. Although commonalities were likely to be found among mission teams providing other types of assistance or operating domestically, comparisons with these groups was not accomplished. Therefore generalization to other populations may be limited.

Chapter 2- Literature Review

Although faith-based medical missions to developing countries have long been an integral part of the overall missions of many churches in the United States, a search of CINAHL®, OVID®, PubMed®, and PAIS® databases resulted in a surprising paucity of literature related directly to faith-based medical missions with almost no research related to this global form of primary care. A small number of studies of military and humanitarian missions provide both useful reports and some insight into mission settings. The literature that is directly related to faith – based medical missions is primarily anecdotal in nature. Although a research foundation is not present, much useful information can be gleaned from anecdotal articles. This summary review of the literature has two main sections: literature and anecdotal reports on military and humanitarian missions and research on self-transcendence and spiritual well-being.

Military, Humanitarian Mission and Disaster Research

Arguably, participating in humanitarian efforts may be seen as an opportunity for personal growth. Although such experiences may not include facing one's own death (whether through normal aging or contracting a life-threatening illness), participants in humanitarian efforts are often in vulnerable situations. Mission participants may be at personal risk for violence and health hazards. They may encounter the aftermaths of war or natural disasters and may witness horrendous, unimaginable conditions. Very little research has been done on participation in military and humanitarian missions; however, some studies are available and will be discussed.

The Swedish National Board of Health commissioned a primarily quantitative study to evaluate the training needs of health care workers providing disaster relief and serving impoverished areas. Qualitative data was also collected and a secondary analysis of interview

transcripts from the original study was conducted. Six major themes emerged from a sample of 15 nurses and 5 physicians who had participated in from one to ten humanitarian missions lasting from six weeks to over two years (Bjerneld, Lindmark, Diskett, & Garrett, 2004).

Participants in humanitarian missions had positive feelings about the work, describing it as “interesting, satisfying and a good learning experience” (Bjerneld, et al., 2004, p. 103). The participants also experienced frustration and stress related to security issues, workload, isolation and cultural differences. Another theme that emerged was not being prepared for some of the work they were required to perform and being faced with unexpected responsibilities. Participants expressed concerns regarding the competence of colleagues and felt disrespected and unappreciated by the locals being served. The interviewees discussed factors that promoted success during the mission such as knowledge, skills, preparation for the mission and personal qualities. The final theme concerned the role the recruiting organization had on influencing the mission in terms of support, guidelines and organization (Bjerneld, et al., 2004).

Application of the findings of this study to faith-based missions originating in the United States may be limited for several reasons. Cultural differences between Swedish and American volunteers may exist. In addition, the nature of the Swedish humanitarian missions as well as the length of time involved both in training and in actually serving in the mission may be different from the usual SFHCM. However, Bjerneld, et al.(2004) make an extremely useful contribution to the literature and their study helps to substantiate the need for inquiry into shorter faith-based missions.

Many humanitarian military medical missions are short- term one- time missions. Beitler, Junnilla, and Meyer (2006) prospectively gathered data on clinical effectiveness of three humanitarian missions in Afghanistan. The missions in Afghanistan were described as

traditional, meaning that a large volume of patients are rudimentarily screened and treated with basic medications. The researchers cited shortcomings in the quality of care that was delivered during these missions such as the lack of laboratory, radiological services and follow-up care for patients. In their discussion of findings Beitler, et al.(2006) voiced concerns about placing troops in harm's way to provide basic health screenings and services. However, participants in humanitarian missions had improved morale and often the opportunity to participate in this type of mission was an incentive for soldiers to stay in the military (Beitler, et al.).

Kirksey (1998) provides a very different perspective on medical missions in his report of a medical mission in Panama. This researcher was conducting an anthropological study in the region and observed both a mission and its aftereffects. From Kirksey's perspective the mission was fraught with problems stemming primarily from privacy issues and language barriers, the positive impact on the recipients of care was negligible as perceived by the researcher. Nevertheless, he concluded that the participants genuinely wanted to help the people, and that they left the area believing that they had made a contribution (Kirksey). As well as their time, the mission participants had each paid from $1200-1400 for airfare, lodging and meals. They had brought and distributed approximately $13,000.00 worth of medication. These were paid partially by contributions from church members with the remainder being paid out of pocket by participants. Despite Kirksey's opinion of minimal benefit to the recipients of care, he concluded that the mission participants genuinely wanted to help the people of Panama and left the area feeling uplifted and believing they had made a contribution.

Summary

Several very important points can be gained from military and humanitarian research. First, the need for further research related to missions is apparent. The complexity of organizing

and conducting missions and the importance of thorough planning and training suggests the need for inquiry in many areas. In all of the studies, care providers genuinely wanted to participate in the efforts often placing themselves at considerable risk to provide aid. Participants experienced personal growth from being involved in mission activities and this growth seems to be a driving force in conducting these missions.

Anecdotal Reports

The majority of literature related to medical missions consists of case reports and editorials. Most are individual anecdotal accounts of a person's mission trip and provide information such as how many patients were seen, how many drugs were dispensed and how the individual reporting benefited from participating in the mission. Common threads throughout these accounts tend to be shock at third world conditions and accounts of personal growth through participating in the mission (Christman, 2000; Clutter, 2005; Smith, 2005). See Table 1 on the following page for examples of anecdotal descriptions of missions.

Despite the conditions, most participants expressed a desire to participate in future mission activities. In addition, a general sense of lack of preparation for the situations encountered pervades the accounts. The major themes that emerge from the small body of available literature related to missions are that participants willingly work in austere, often dangerous settings and participants discuss profound personal growth from participating in missions.

Self-Transcendence Research

Reed's Research

Reed's work was influenced by lifespan developmental theories and nursing theories developed by Orem and Rogers. Life events experienced by older adults such as the loss of a

Table 1

Examples of Quotes from Anecdotal Articles

Author	Mission Location	Quote
Christman (2000)	Philippines	“Many other sights were painful to observe. I know we have our share of poverty but coming from a small city, I have never seen the unrelenting and severe poverty in the U.S. that I saw in the Philippines What I found amazing about the poverty-stricken people…was that no matter what their living conditions they always managed a smile and a greeting to us…I truly felt honored to be a part of this mission...It was a very rewarding learning experience…I am already anticipating my return in two years…”(p. 309-310).
Clutter (2005)	Bolivia	“The emotions of this day were almost too much to bear…it took many months before we could talk about these children with others”(p. 219).
Dutt (2006)	Pakistan	“I find the sadness overwhelming. I can’t stop thinking and I don’t know how I will face my home” (p. 392).
Gold (2004)	Kenya	“The poverty here is overwhelming but the orphanage is wonderful- clean and cheerful- and behind locked gates….There’s no hot water and we hang our clothes on trees and bushes to dry….I’m getting used to being hungry but we do get coffee in the morning.”(p.44).
Smith (2006)	Bolivia	“ We often felt helpless, as though we had little to offer the people…Our mission was to provide preventative education…we handed out bars of soap… along with basic instructions…to wash hands…and immunize children” (p. 21).
Soliday (2006)	Jamaica	“On the final day when a grandmotherly woman shook my hand and thanked me for her tablets, I smiled and watched her begin the long walk home. I turned to the next patient, a mother waiting for antibiotics for her young daughter and began to explain how to give the tablets. What was not obvious to my patient was that she was giving me so much more” (p.55).

spouse and retirement were theorized to require increasingly complex "assets that emerge…out of person-environment interaction" (Reed, 1986, p. 368). Reed (1986) examined the developmental resources of depressed older adults in comparison to mentally healthy adults in a longitudinal study. The mentally healthy adults consistently had higher scores on the Developmental Resources of Later Adulthood Scale (DRLA). This measure of psychosocial developmental resources was a 36 item questionnaire developed by Dr. Reed and included characteristics such as "the ability to transcend limitations of the present situation, share one's wisdom, accepting one's past-present-future and achieving a sense of physical integrity" (Reed, 1986, p. 369) . The instrument was further refined in this study and evolved to become the 15 item Self-Transcendence Scale (STS) (Reed, 1986).

A subsequent study examined the relationship between self-transcendence and mental health among a population of adults ages 80-100, termed "the oldest-old". In this study self-transcendence was measured using the STS. Self-transcendence was found to be a correlate of positive mental health in this elderly population as well. This study included a qualitative component that was analyzed using a matrix analysis and showed support for the construct of self-transcendence as delineated in the STS (Reed, 1991).

The Theory of Self-Transcendence was extended in a number of ways in a study of self-transcendence and depression in middle-aged adults (Ellermann & Reed, 2001). These mid-life adults were not facing end-of –life issues, but rather, were facing issues of middle adulthood that provide opportunities for the expansion of personal boundaries. Parenting then became an area for study of ST because an important aspect of successful parenting involves transcending beyond a self-focus "to exercise empathetic understanding, give of oneself unselfishly, sometimes deny personal desires and to reach out to nurture, love and guide another" (Ellermann

& Reed, 2001, p. 700). Increased levels of self-transcendence were associated with lower levels of depression in this study. Self-transcendence scores in the younger middle aged adults (age 25-44, STS *M* = 47.3) in this study were significantly lower than scores of older adults in the study (age 45-64, STS *M* = 51.5) as well Reed's previous study of elderly adults (age 80-97, STS *M* = 49.5) and overall, women had higher self-transcendence scores than men (Ellermann & Reed, 2001).

The concept of vulnerability as initially described within the Theory of Self-Transcendence, was expanded in a study of homeless adults (Runquist & Reed, 2007). Homelessness was viewed as a vulnerable state that allowed for the possibility of personal growth. Self-transcendence, as measured by the STS, explained 59% of the variance in well-being in this population. Runquist and Reed (2007) discuss the vulnerability of homeless persons to myriad health problems; however, they suggest this vulnerable state can also be transformational. Further research in this population is warranted. Several researchers have used ST as the theoretical basis for interventional studies. (Bean & Wagner, 2005; Coward, 2003). There has also been qualitative work to add support to the construct.

The research using Reed's Theory of Self-Transcendence has evolved over the last twenty years. Reed's initial research was conducted with elderly populations facing end- of- life issues and a preponderance of this work was done using quantitative methods and viewing self-transcendence as an independent variable affecting well-being. Coward, one of Reed's students, embraced the theory and developed a program of research related to self-transcendence. Coward moved in a slightly different direction, researching self-transcendence as an outcome variable using primarily qualitative methods in a number of studies. Table 2 presents some specifics of the individual studies.

Table 2

Examples of Self-Transcendence Research

Researcher(s)	**Date**	**Type of study**	**Population**
Reed	1986	Longitudinal	Healthy and depressed adults age 55-83 (n = 56)
Coward	1990	Phenomenology	Women with breast cancer (= 5)
Reed	1991	Mixed methods	Adults age 80-97 (n = 55)
Coward	1993	Phenomenology	Men with AIDS (n = 8)
Coward	1995	Phenomenology	Women with AIDS (n = 10)
Coward	1996	Descriptive correlational	Middle aged adults (n = 152)
Ellermann & Reed	2001	Descriptive correlational	Healthy adults age 25-64 (n = 133)
Coward	2003	Quasi-experimental	Women with newly diagnosed breast cancer (n =41)
Coward & Kahn	2004	Longitudinal, phenomenology	Women with newly diagnosed breast cancer (n = 10)
Bean & Wagner	2005	Mixed Methods	Liver transplant recipients (n = 471)
Decker & Haase	2005	Descriptive Correlational	Adolescents with cancer (n = 74)
Upchurch & Mueller	2005	Descriptive correlational	Older African-Americans (n = 96)
Runquist & Reed	2007	Descriptive correlational	Homeless adults (n = 61)

Coward's Research

The population and circumstances studied using the theory of self-transcendence shifted with Coward's (1990) work with middle-aged women with metastatic breast cancer. Although she also focused her work on individuals facing a life threatening diagnosis, the population was younger than previous work at that point. Coward used a qualitative approach, phenomenology, to capture the experiences of these women. Participants described experiences consistent with the Theory of Self-Transcendence (Coward, 1990).

Coward then used phenomenology to study patients with AIDS (Coward, 1993; Coward, 1995). Coward found that both men and women with HIV/AIDS continued to reach out to others and search for meaning in their lives. Coward suggested that nurses can be instrumental in fostering self-transcendence in AIDS patients facing the end–of–life by encouraging open expression of feelings and providing opportunities for patients to interact with others in the community (Coward, 1993; Coward, 1995). Self-transcendence was then studied in a population of healthy, middle- aged adults (Coward, 1996). The mean STS scores were slightly lower than those of older adults; however, the scores were higher than those of individuals with terminal diseases. These findings suggest that self-transcendence may occur in situations other than end-of-life experiences. This study was conducted in a noisy shopping mall and the sample was predominantly comprised of Caucasian, Protestant, middle-class females, limiting generalizability.

By 2003, Coward (2003) had investigated an intervention to facilitate self-transcendence in women with newly diagnosed breast cancer through the use of support groups in a quasi-experimental study. The researcher encountered unanticipated difficulty in recruiting participants to this study. The intervention was a weekly support group that met for a total of eight sessions.

Every support group session was led by the same three individuals, a Clinical Nurse Specialist, a breast cancer survivor and a psychotherapist. Although there were few statistically significant findings in this small pilot study (n = 39) women that participated in the support group had statistically significantly higher scores on the STS and a well-being measure upon completion of the eight week sessions, than the control group. Regardless of participation in the intervention moderate to strong positive correlations were found between self-transcendence and well-being in the entire sample, consistent with Coward's previous research. This study was important in that the Theory of Self-Transcendence was supported and an intervention to promote self-transcendence was introduced (Coward, 2003).

A subset of participants from Coward's (2003) quasi-experimental study participated in a longitudinal phenomenologic study investigating the experience of spiritual disequilibrium following diagnosis with breast cancer. In the early aftermath of the diagnosis participant themes included shock, sense of aloneness, reaching out for information and desire to help others. In the period four to seven months after diagnosis the themes included feeling more like their former selves and the importance of supportive relationships. Fourteen to eighteen months after diagnosis the themes included finding ways to prevent recurrence, defining a new, normal self and changes in priorities and relationships. Although the women were not directly asked about spiritual matters, responses indicated spiritual concerns. Women who experienced spiritual disequilibrium after being diagnosed with breast cancer exhibited self-transcendence. The women looked inwardly, outwardly and pandimensionally in reexamining personal values, seeking information, and reached out to others for support and spiritual resources (Coward & Kahn, 2004).

Other Researchers

Subsequent research has broadened the application of ST. First, populations who are generally younger than those used in the foundational research, have been studied, and the presence of a life threatening situation does not seem to be necessary. The concept of vulnerability has been determined to include populations dealing with both acute and chronic disease states as well as maturational developmental crises of adulthood such as giving birth and parenting. The theory of self-transcendence has been chosen to be the framework in a number of master's theses and doctoral dissertations in nursing. A representative group of these studies will be discussed in greater detail. Samples have been drawn from populations including liver transplant patients and elderly African-American (Bean & Wagner, 2005; Upchurch & Mueller, 2005).

As in other studies, self-transcendence positively correlated with quality of life in a population of liver transplant recipients (Bean & Wagner, 2005). Interestingly, this population had higher levels of self-transcendence than other populations reported in the literature. The study was conducted in a part of the U.S. referred to as "the Bible Belt" and 93.6% of the sample had religious affiliations. Although generalizability of the results of this study to other populations may be limited, individuals undergoing organ transplantation may have an increased capacity for self-transcendence and finding meaning in their experience (Bean & Wagner, 2005).

The health benefits of spirituality and self-transcendence were examined in a population of elderly African-Americans (Upchurch & Mueller, 2005). The researchers found significant correlations ($r = 0.22$, $p < .05$) between self-transcendence as measured by the STS and instrumental activities of daily living measured by the Instrumental Activities of Daily Living Scale (IADL) developed by Lawton and Brody (Upchurch & Mueller). Self-transcendence had a

positive impact on state of mind and on physical activities of daily living (ADL) as well as instrumental activities, that is, those which require executive functioning such as shopping, taking medications and management of finances. The sample was predominantly Southern and female, limiting generalizability (Upchurch & Mueller).

Summary

The Theory of Self-Transcendence has developed over a period of twenty years and its concepts have been extended and refined. Self-transcendence has now been examined in a range of populations of various ages, in those facing end-of-life situations, maturational crises, and in healthy populations. The ST concept of vulnerability within this theory has also been broadened to include many developmental aspects of adulthood. The theory, as well as the instrument developed to test the theory, has been shown to have utility in samples from a range of populations experiencing personal growth in adulthood.

Spiritual Well-Being

Spirituality, although quite an abstract concept, is salient in the lives of many individuals and may contribute significantly to overall well-being and quality of life. Viewing individuals holistically, as physical, psychosocial, spiritual beings, contributes to the idea that spiritual dimensions cannot be separated from the physical and contribute to the overall well-being of an individual. The interest in the connection between spiritual and other dimensions has grown significantly since 2001, particularly in the number of published articles correlating religion and/or spirituality with mental health outcomes (Koenig, 2008). Examples of these studies will be highlighted.

Relationships between spiritual well-being, depression and end-of-life despair were studied in a population of terminal cancer patients. The patients were hospitalized and were at

the end stage of their illnesses. Spiritual well-being was the strongest inverse predictor of the outcome variables, hopelessness, suicidal ideation and the desire for hastened death (McClain, Rosenfeld & Breithart, 2003).

In a study of older adults (n = 853), women who attended religious services at least once a week had lower allostatic load measured by a number of variables including blood pressure, body size, cholesterol, blood glucose, cortisol, epinephrine and stress hormone levels. The researchers concluded that physical health outcomes could be impacted by religious involvement (Maselko, Kubzansky, Kawachi, Seeman & Berkman, 2007).

Matched pairs of teens aged 15-19 (those with the disease and a control group) were studied prospectively for risk factors for the development of meningococcal disease. Factors that contributed to the development of the disease included having a history of preterm birth, being a university student, kissing multiple partners and prior illness. Interestingly, attendance at religious services reduced the risk for meningococcal disease by 90%, a similar rate as vaccination (Tully, et al., 2006).

Daaleman and Frey (2004) recognized the importance of spiritual well-being and the need for an objective measure of this construct. Qualitative exploration provided the theoretical framework for the development of a quantitative measure of spiritual well-being (Daaleman & Frey; Frey, Daaleman & Peyton, 2005). The Spirituality Index of Well-Being (SIWB) was developed to measure the effect of spirituality on subjective well-being and to overcome inadequacies in instruments designed to measure similar constructs. An existential perspective was used to both define spirituality and to more clearly separate the construct from religiosity. Daaleman and Frey purposefully chose to exclude items that measured religious practices and

beliefs and do not include any references to God broadening the utility of the instrument to culturally diverse populations.

Qualitative work suggested that spirituality contributed to feelings of well-being in elderly populations. Pilot testing of the SIWB was completed in a geriatric outpatient population (Daaleman, Perera, & Studenski, 2002). Once preliminary data was obtained on this instrument, it was tested with adults (mean age 46.8 years) in the Midwestern United States and with high school students (Daaleman & Frey, 2004; Frey, Pedrotti, Edwards & McDermott, 2004). Generalizability to other populations may be limited; however, the instrument appeared to be a valid and reliable measure of spiritual well-being.

Frey, Daaleman and Peyton (2005) did additional psychometric work on the SIWB. They examined the instrument conceptually, reviewing concept analyses related to spirituality and well-being. They performed a factor analysis on the scale and reviewed data from three studies using the instrument, examining effects of influential variables such as age and gender. They found the instrument to be reliable and valid across different populations. This instrument will be discussed in greater detail in Chapter 3. In summary, spiritual well-being and self-transcendence appear to be concepts that fit well with both SFHCM participants and the need for transcending the situations they encounter.

Chapter 3- Methods

The accounts regarding mission trip experiences of growth resonate with the concept of ST. My plan was to test the fit of ST as it relates to mission participants. In this chapter the research questions iterated in Chapter one will be addressed using mixed methods research strategy. Reasons for choosing this design, the sample data collection and analysis will be discussed. The chapter will conclude with a discussion of safeguards to maintain rigor including threats to validity.

Study design

In this study the possible relationships of ST, SWB and other variables in a sample of persons who have participated in a SFHCM were examined. A mixed methods triangulation design as described by Creswell and Clark (2007) was used to answer the research questions (Appendix A). Quantitative data related to self-transcendence and spiritual well-being in this population were collected to validate the personal growth that is experienced and better define a crucial element of mission trip experiences. The paucity of research with mission participants underscores the importance of collecting both quantitative and qualitative data to further explore self-transcendence through mission participation. In addition, qualitative data were used to help identify other important aspects of the mission experience.

Quantitative and qualitative data were collected via an online survey. The survey data sources were: self-administered STS and SIWB scales as well as a demographic data questionnaire including aspects such as age and number of mission trips a participant has taken. In addition, free text answers to open-ended questions addressing aspects of the mission experience were collected.

Data were analyzed separately and independently using analysis techniques appropriate for each type of data. See appendixes for the survey instruments. Analysis methods will be discussed in a subsequent section of this chapter. Quantitative and qualitative findings were compared to findings from previous studies. Quantitative data from previous studies were utilized in testing some of the hypotheses and are further detailed later in this chapter.

Interpretations emerge from both quantitative and qualitative findings as well as comparisons between the data sets. Self-transcendence in participants in SFHCM was better understood by obtaining different, but complementary data. Anecdotal literature suggests that mission participants experience self-transcendence; however, this phenomenon has not been explored in this population. Direct quotes from participants were used to further explain quantitative findings.

Research Questions

1. What are the levels of self-transcendence and spiritual well-being in this sample of mission participants and how do levels of self-transcendence in mission participants compare with self-transcendence levels in other populations that have been studied?

   Hypothesis A. Self-transcendence in mission participants will not be equal to self-transcendence in other populations that have been studied.

2. What are the relationships between self-transcendence, spiritual well-being and demographic variables (age, gender and number of mission trips in which an individual has participated)?

   Hypothesis B. There is a statistically significant relationship between STS scores and age.

I anticipated that STS scores would increase with age as described in the literature (Coward, 1996; Ellermann & Reed, 2001; Reed, 1989; Reed 1991); however, a non-directional hypothesis was tested because a change in either direction is important.

Hypotheses C and D. There will be a statistically significant difference between group mean STS scores for men and women. There will be a statistically significant difference between group mean SIWB scores for men and women. I anticipated that STS and SIWB scores would be higher for women consistent with previous research (Ellermann & Reed, 2001; Reed 1989; Reed 1991); however, non-directional hypotheses were tested because a change in either direction would be important.

Hypothesis E. There is a statistically significant relationship between SIWB and STS scores.

Hypothesis F. There is a statistically significant relationship between vulnerability and STS scores.

3. What factors and experiences do participants report that provide evidence of self-transcendence during and following the mission experience?
4. What lessons have mission participants learned about participating in missions?
5. What experiences do participants describe as evidence of vulnerability during their mission experience?

(No hypotheses for these qualitative questions.)

Participants

Obtaining precise information about church membership in the East Tennessee region was complex and obtaining information about mission activities was even more difficult. Although denotation of church affiliation is a part of some general census and survey data, these numbers do not capture specific church membership or whether a person actually attends a

church. Multiple sources of information help to clarify the picture of church membership and mission activity originating in East Tennessee.

Knoxville is home to more than 450 churches (Religious Organizations in Knoxville, 2008). The Tennessee Baptist Convention lists 162 churches with Knoxville zip codes as members of their organization (Tennessee Baptist Convention, 2008). The Roman Catholic Diocese of Knoxville has over 50,000 members but only lists seven churches in Knox County. Five of these seven churches have memberships of over 750 families ranking in the top twenty five churches in terms of members in Knoxville (Diocese of Knoxville, 2008). In an informal survey listing the twenty largest churches, seven are Southern Baptist with a combined membership of 35,851 and four are Roman Catholic with a combined membership of 13,841. Other church denominations represented in the top twenty include United Methodist, Evangelical Presbyterian, Interdenominational and Church of God (Knoxville News- Sentinel, 2007). Thus, estimates of membership are available but precise counts of both the number of members and the actual attendance are difficult to precisely obtain and compile.

Determining the full extent of mission activity in the region is also difficult. There is no central database of mission activities collected at the local level and while most church hierarchies collect general mission information, statistics on specific numbers of mission trips is not available from central denomination databases. Information about mission activity can be obtained directly from area churches. All twenty of the churches ranked as largest in the region sponsor some form of mission activity; however, they do not all document international mission trips originating from their churches or further stipulate short-term medical mission activities on their church websites.

A convenience sample was used in this study; however, an attempt was made to obtain a sample of participants with a variety of mission experiences. Obtaining an adequate number of participants for this study to ensure sufficient statistical power to detect at least medium effect size with a reasonable degree of precision was attempted. A power analysis was done using G*Power software (Faul, Erdfelder, Lang & Buchner, 2007). The originally desired sample size of 100-110 participants would have provide the ability to detect medium effect sizes with an α of .05, 1-β of .95 for correlations, t-tests and regression. The decrease to 65 participants provided the ability to detect large effect sizes with an α of .05, 1-β of .95 for correlations, t-tests and regression.

Study inclusion criteria appeared on the introductory web page for the study. Participation was limited to individuals over 18 years of age who had participated in a short-term, faith-based, foreign healthcare mission. Participants must have had access to a computer and the internet and must have been able to read and write English. Participation was limited to U.S. residents. Participation was not delimited by when the mission trip occurred, whether the participant was actively practicing a particular faith or whether the participant was affiliated with the faith-based group that sponsored the mission trip. Participation was not delimited by the location of the mission trip except that the trip must have involved travel outside of the United States

Calls for participants were placed in church bulletins of a large area church (membership > 1000) and a medium sized church (membership 500 - 1000) of different denominations that conduct short-term, foreign, healthcare missions. Eight additional large churches declined to post the announcement. Two hundred flyers (Appendix B) describing the study were distributed in the local community through direct distribution of the flyers to mission leaders and participants by

the primary investigator. In addition, flyers were directly distributed to mission team participants by mission trip leaders in four large area churches (membership > 1000) of different denominations.

Human Subjects Protection

Institutional Review Board approval was obtained prior to data collection. Once participants accessed the study website they read a brief study description followed by a consent form for the study. Participants had to consent to participate in order to proceed to the screens containing the instruments and questions. Participants had the option of withdrawing from the study at any point during the data collection phase. No identifying information was collected about either the individuals answering the questions, the mission group they traveled with or the specific church they attend.

IRB approval was obtained for secondary analysis of this data set and for sharing data with Dr. Reed, developed of the STS. Participants were asked for consent for secondary analysis of data. The mean, range, correlations and Cronbach's alpha of the STS scale will be shared with Dr. Reed and will be used to establish a normative data base for clinical populations. The data will be used by Dr. Reed to assess reliability and validity of the STS instrument.

Secondary analysis of this data may be useful due to the very limited amount of research related to SFHCMs and other types of international humanitarian mission. This data set may be helpful in the future for comparative projects. Comparisons might be made with teams from different cultural contexts, different religious affiliations or different geographical locations. Comparisons between non-faith based efforts, such as military or humanitarian missions might be made. As more research and/or theory emerges related to missions, secondary analysis of this data set might be useful for an in-depth look at an aspect or a perspective not considered in this

study. This data set might possibly be used to expand a future data set to aid in detection of small effect sizes of specific variables.

Measures

Self-transcendence was operationalized as the score on the Self-Transcendence Scale (STS) (Appendix C). Spiritual well-being was operationalized as the score on the Spirituality Index of Well-Being (SIWB) (Appendix D). Vulnerability was operationalized as the degree to which a participant felt unsafe, vulnerable or inadequate during their mission trip. This question appeared on the demographic data sheet. Demographic variables including the participant's age and number of mission trips was recorded as whole numbers and gender was recorded as male or female then was coded numerically (Appendix E). Additional demographic variables required a short text answer.

Instruments. The Self-Transcendence Scale (STS) (Appendix C) consists of 15 items with responses based on a 4-point scale ranging from "not at all" = 1 to "very much" = 4. Scoring on Item 15 is reversed such that "not at all" = 4 and "very much" = 1. Each participant's score is calculated by adding the scores for all the items then dividing this number by the total number of items answered to obtain a mean score (Reed, 2007). The STS mean scores can range from 1.0-4.0 and reflect the overall level of self-transcendence. Higher scores indicate higher levels of self-transcendence. Internal consistency of this scale was estimated by acceptable Cronbach's alpha ranges ($\underline{\alpha}$ = .80-.88). Test-retest reliability was supported in the initial development of the instrument through secondary data analysis across three time periods (Reed, 1991). Content validity has been established through a thorough literature review, as well as refinement of the scale by Reed, the scale author (Reed, 2007). Support for construct validity has been established through correlation of STS scores with other scales measuring this concept such as the Purpose-

in-Life Test (Coward, 1996; Reed, 1991). The STS has been used with a range of populations including older adults, middle-aged adults and adolescents (Reed, 2007).

The Spirituality Index of Well-Being (SIWB) (Appendix D) is an instrument available in the public domain designed to measure well-being within the context of spirituality. The instrument consists of twelve items with responses based on a five point scale ranging from "strongly agree" to "strongly disagree". The final score is calculated by adding the scores for each item then dividing this number by the total number of items answered to obtain a mean score for each participant. Higher scores indicated higher levels of spirituality well-being. The SIWB scores range from 1.0-5.0 and the index. Internal consistency for this instrument was acceptable as evidenced by Cronbach's alpha ($\underline{\alpha}$ = .91). Content validity was supported through factor analysis of the scale (Daaleman & Frey, 2004). According to Daaleman and Frye (2004) support for construct validity of the SIWB was established through positive and/or negative correlation of SIWB scores with other scales measuring well-being including the Spiritual Well-Being Scale (Ellison, 1983), the General Well-Being Scale (McDowell & Newell, 1996) and the Zung Depression Scale (Zung, 1965).

The Demographic Data Collection form (Appendix E) was developed with assistance from the dissertation committee members to obtain salient data suggested by theory and to describe the delimiters of the study. The literature suggested differences in STS based on age and gender; therefore, these items were included. The study was delimited to foreign, faith-based missions and information about where participants traveled and their religious affiliations was relevant. Knowledge of whether or not participants had healthcare experience and the type of experience was potentially important.

The question regarding the degree of perceived vulnerability appeared with the demographic data. This question was included to measure a concept not previously measured in research related to ST although this variable is considered to be a variable contributing to increased ST. Wording consistent with ST theory was used and a seven-point likert scale was chosen to allow for some degree of expression of degrees of vulnerability experienced by participants. This variable was scored from a low score of 1 (not at all) to a high score of 7 (very much).

Research questions 3, 4, and 5 were answered using qualitative content analysis of written responses to open ended questions and statements (Appendix E). The open-ended questions were:

1. What did your mission experience mean to you?
2. After participating in a foreign mission trip, what things that you would have liked to have known before you went?
3. Are there any other things that you think would be helpful for future mission participants to know?
4. Please describe any times that you felt unsafe, vulnerable or inadequate during your mission trip.

In addition, participants had the opportunity to add additional comments if they so desired.

Procedures

Data Collection

Data were collected using a web-based approach. The flyers and calls for participants provided a shortened URL to the study data collection website. The study introduction, consent statement, instruments and open-ended questions were posted on a secure web site established

through the University of Tennessee Office of Information Technology. Participants were required to consent to participating in the study before they were able to access or complete the instruments and questions. The website remained operational for twenty weeks in an attempt to obtain an adequate sample. The data were only accessible to the principal investigator and the University of Tennessee system administrators. The website was on a secure server and the data were backed up to prevent loss.

As previously stated, the STS casewise data will be provided to Dr. Pamela Reed, author of the STS scale. Dr. Reed requested this information for the purpose of assessing reliability and validity of the instrument and to establish a normative data base for clinical populations. No identifying information of subjects was available and none will be submitted to Dr. Reed. No other use of this data will be made by Dr. Reed. IRB approval was obtained to share these data with Dr. Reed.

The study instruments and open-ended questions were posted on the website using mrInterview® software. This software allowed for inclusion of single and multiple responses, numerical and open-ended text questions. Screens for all of the open-ended questions allowed for responses with a maximum of 3000 character spaces, roughly equivalent to 600 words or two double spaced pages. A page following the open-ended questions allowed for an additional 3000 character spaces if needed by participants.

The first page of the online survey that participants read was a brief description of the study followed by a consent statement. Participants must have consented to participate in the study to progress to the next page of the survey. The demographic questions appeared first as single response questions and numeric questions. The STS and SIWB each appeared formatted as a matrix of questions using the same response scale. The open-ended text questions appeared

next followed by a final item allowing the participant to submit the responses to all of the questions. Data collected on the website was downloaded into SPSS for analysis. Each participant's answers to the demographic questions and instruments constitute a row in the SPSS file. Free text answers were also tied to a participant's quantitative responses. Responses were entered into the SPSS file by chronological order in which the surveys were completed. Thus, each participant was assigned a unique identification number based on the chronological timing of survey completion for the purpose of pairing demographic data with instrument scores and qualitative responses.

Data Analysis

After the survey had been posted for two months, preliminary data analysis was done although the number of participants was fewer than anticipated ($n = 61$). Data entered by participants were downloaded into an SPSS file. The initial examination of data was done by the principal investigator then was reviewed by a dissertation committee member and a representative from the University of Tennessee Statistical Consulting Center.

In order to attempt to increase the number of participants, the decision was made to leave the survey open for an additional two months. Options such as use of hard copy data collection forms and meeting in person with a mission team were considered. The decision to not use paper versions of the survey was made to maintain consistency of data. Approaching specific mission teams individually was not done due to potential bias that might be introduced via concentrated responses from a single SFHCM. Additional churches were contacted for bulletin postings and individual flyers were distributed.

After an additional two months, data were again downloaded into an SPSS file and were examined in the same manner as the preliminary analysis. By this time, 139 individuals had

opened the survey; 74 did not progress beyond the consent page and the total number of completed surveys was $n = 65$. It is unclear whether the 74 people did not meet study criteria or if they chose to complete the survey at a later time. Initially data were evaluated for entry errors such as typographical errors and any issues with transferring the data to an SPSS file; however, no such errors were identified. There was no missing data in the completed surveys.

The data were examined for outliers and basic assumptions including normality, homoscedasticity and linearity using univariate frequency distributions and charts such as histograms, bar charts, and scatterplots. No problems with the data were found. The data will be discussed in greater detail in Chapter Four.

Individual scores on the STS and SIWB were calculated using methods described by the respective authors of the scales (Daaleman & Frye, 2004; Reed, 2007). Individual scale item scores were transferred from SPSS to an Excel® file for calculations of individual scale scores. Excel® was the principle investigator's preference of statistical software for these calculations and this also served as a means to double check scores. The scale scores were then transferred back to the SPSS data file. Measures of central tendency of scale scores were calculated and assumptions of a normal distribution were evaluated by examining a histogram of values and were met. The findings will be discussed in greater detail in Chapter Four.

Research question 1. What are the levels of self-transcendence and spiritual well-being in this sample of mission participants and how do levels of self-transcendence in mission participants compare with self-transcendence levels in other populations that have been studied? In previous studies the cumulative STS scores were reported; however, in Reed's (2007) instructions for instrument scoring, cumulative scores are divided by the total number of scale items to obtain the STS score. The mean (*M*), standard deviation (*SD*) and *n* for cumulative STS

scores of each of the comparison studies were individually compared with the *M, SD* and *n* of cumulative STS scores for this sample using two-sample t-tests using graphpad©. Point-biserial correlations were also calculated manually for each of these comparisons to ascertain the magnitude of the relationship between the means. The hypothesis for this question and the hypotheses for Research Question 2 are listed in Table 3. The comparison studies are listed in Appendix F.

Research question 2. What are the relationships between self-transcendence, spiritual well-being, vulnerability and demographic variables (age, gender and number of mission trips in which an individual has participated)? Bivariate correlation between age and STS scores was done. Scatterplots were also examined for linear relationships and to help identify any outliers. Gender-based differences in STS and SIWB scores were examined using t-tests for independent groups. Levene's tests were done to test the assumption of homogeneity of variance. Point-biserial correlations were done.

Bivariate correlation between STS and SIWB scores and scatterplots to help identify linearity and any outliers was done. Bivariate correlation was done between the vulnerability measure and STS scores. In addition, polynomial regression was done to look for a possible curvilinear relationship consistent with Reed's theory in that increased levels of vulnerability are expected to positively impact levels of ST; however, very high or very low levels of vulnerability may not influence ST.

Research questions 3, 4 and 5. What factors and experiences do participants report as evidence of self-transcendence during and following the mission experience? What lessons have mission participants learned about participating in missions? What experiences do participants

Table 3

Research Hypotheses

Hypothesis	Hypothesis Equation	Variable	Analysis
A. Self-transcendence levels in mission participants will not be equal to self-transcendence levels in other populations that have been studied.[1]	H_o: $\mu_{current} - \mu_{previous} = 0$ H_1: $\mu_{current} - \mu_{previous} \neq 0$	STS scores	Student's *t*-test for independent groups[2]
B. There is a statistically significant relationship between STS scores and age.	$H_0: \rho = 0$ $H_1: \rho \neq 0$	STS scores; Age	Pearson Product-moment correlation
C. There will be a statistically significant difference between group mean STS scores for men and women.	H_o: $\mu_{men} - \mu_{women} = 0$ H_1: $\mu_{men} - \mu_{women} \neq 0$	STS scores	Student's *t*-test for independent groups[2]
D. There will be a statistically significant difference between group mean SIWB scores for men and women.	H_o: $\mu_{men} - \mu_{women} = 0$ H_1: $\mu_{men} - \mu_{women} \neq 0$	STS scores	Student's *t*-test for independent groups[2]
E. There is a statistically significant relationship between SIWB scores and STS scores.	H_0: $r = 0$ H_1: $r \neq 0$	SIWB and STS scores	Pearson Product-moment correlation
F. There is a statistically significant relationship between vulnerability and STS scores.	H_0: $\beta x^2 = 0$ H_1: $\beta x^2 \neq 0$	Vulnerability; STS scores	Pearson Product-moment correlation Polynomial regression[3]

1. See Appendix F
2. Assumptions for testing this hypothesis using the *t*-test for independent groups were met in that there were independent observations within each sample and between samples, there was a normal distribution of the STS scores in the populations from which the samples were selected and there was equality of variance in populations from which the samples were selected (Munro, 2005). Homogeneity of variance was tested using Levene's test.
3. Polynomial regression was used to test this hypothesis because of the hypothesized curvilinear relationship.

describe as evidence of vulnerability during their mission experience? Data were analyzed using content analysis of participant responses. Both inductive and deductive techniques were used to analyze data. Categories and themes emerged during data analysis; however, categories based on the theory of self transcendence and prior research formed the starting point for data sorting.

This kind of directed study of content analysis has a name, directed content analysis, and is a more structured process wherein initial coding categories are derived directly from key concepts (Hsieh & Shannon, 2005). For example, responses to the question, “What did your mission experience mean to you?” included words or synonyms describing elements of self-transcendence such as personal growth, spiritual growth, or life-changing experience. In addition statements fell into one of the pandimensional characteristics of self-transcendence such as reaching out to others, greater awareness of one’s own beliefs, values and dreams, integration of the past and future and/or spiritual connections. Participant statements reflected similar themes as illuminated in earlier research. However, responses to the question, “After participating in a mission trip what things that you would have liked to have known before you went?” and responses to the question, “Are there any other things that you think would be helpful for future mission participants to know?” included a broad range of responses. Given the lack of a research base from which to draw preliminary categories, inductive techniques were used to analyze these responses with a conceptual template. Analysis of the statements related to vulnerability were initially sorted into categories stemming from Reed’s theory such as heightened sense of mortality, feeling inadequate and feeling vulnerable. As with the previous question, inductive techniques were also used to analyze these responses.

Initially the data were categorized using SPSS text analysis software. While this approach helped to formulate an initial impression of the data, direct reading of the text was required. The

contextual variety of responses demanded a direct reading approach to definitively sort, organize and categorize the data.

The original text responses were initially read for context and for an overall impression of potential categories replete in the responses. The transcripts were reread and were manually highlighted based on categories that emerged from the initial reading. Additional categories emerged during subsequent readings. Using this directed approach, iterative readings were required six to ten times in order to identify quotes that supported themes. Text response items that were not highlighted as belonging to any identified categories were evaluated to determine if they fit into an existing category or if they represented new categories.

The dissertation committee chairperson was blinded to my data coding and independently reviewed the text responses to the open-ended questions to cross-check the qualitative analysis and to support validity of findings. There was consistency between categorization and thematization between readers. This approach helped to maintain neutrality and objectivity of findings.

Triangulation of quantitative and qualitative data was done to look at the extent to which the data sets converged and confirmed each other. The responses to the open-ended questions were evaluated to determine if they supported the quantitative findings. Similarities and differences between data sets were evaluated.

Reliability and Validity

Several processes were employed to maintain rigor in this study. The use of instruments already tested for reliability and validity reinforce overall validity. Iterative readings of the free text responses and data categorization cross-checking added to reliability. Review of quantitative

and qualitative data and findings by committee members also served as a type of reliability through triangulation of researchers.

Use of a web-based data collection mechanism was very appropriate for this study. First, a broader sample was obtained through this mechanism than could be reached by conducting the study in individual churches. Second, this method of data collection was extremely cost-effective, an important consideration in student research. Third, Internet samples have been found to be diverse with respect to gender, race, socioeconomic status and age (Gosling, Vazire, Srivastava & John, 2004). Finally, web-based studies have been found to have data of "at least as good quality as those provided by traditional paper-and pencil methods" (Gosling, et al., p. 102).

There were also some pitfalls in collecting data via a web-based approach. A number of individuals opened the survey but did not progress beyond the informational pages. There was not a mechanism available to ascertain why they did not complete the survey or whether they chose to complete the survey at a later time. Due to the anonymous nature of the survey, there was no option to follow up with participants on ambiguous text answers.

In summary, a mixed method design was utilized in this study. IRB approval was obtained, a convenience sample was used and data collection was accomplished using an online survey. Data was analyzed using appropriate methods for each type of data. The findings are reported in the following chapter.

Chapter 4- Findings

The sample was comprised primarily of women who were experienced at faith-based missions. More than two thirds were nurses. Several health care professions were represented in this sample and a full spectrum of specialty areas was represented. The participants who worked in occupations that were not health care related came from a wide range of work settings.

The sample consisted of 65 participants. Most were in middle adulthood and women outnumbered men more than two to one. The mean age was 47.69 years (*SD* = 14.92), the median age of participants was 53 years, the mode was 56 and the range was 18-74. There were 46 women and 19 men in the sample. These were experienced mission participants with the mean number of mission trips being seven, the mode was two and the median number was four with the range extended all the way to 60 trips for one participant. This was the first mission trip for eleven participants. The majority of trips were to countries in the Caribbean and Central America; however, respondents had also traveled on mission trips to Europe, Africa, South America and Asia. Data related to the number and locations of trips are summarized in Appendix G. Selected demographic data are summarized in Table 4.

Most participants had traveled recently with 59% traveling within the past two years and 31% traveling within the past year. An additional 33% traveled within the past 2-6 years. Only 8 % of participants had participated in trips from greater than six years ago. Participants were asked if they would be willing to go on another mission trip and overwhelmingly responded positively. Only one participant stated that she was not willing to go on another mission trip.

Most participants were affiliated with the same denomination as the mission group with which they traveled. The majority of participants were either Southern Baptist (32%) or Roman Catholic (31%). Several other protestant affiliations were noted among participants. Roman

Table 4

Selected Demographic Characteristics of the Participants

Characteristic	Number	Percentage
Gender		
Female	46	71%
Male	19	29%
Religious affiliation		
Catholic	20	31%
Protestant	45	69%
Southern Baptist	21	32%
Presbyterian	6	9%
United Methodist	4	6%
Episcopal	3	5%
Evangelical	3	5%
Independent Baptist	1	1%
Other	7	11%
Occupation		
Other (non-healthcare)	19	29%
Healthcare (total)	46	70%
RN	20	40%
APN/ NP	6	9%
Nursing student	5	8%
MD	8	12%
PT/OT	2	3%
DDS	1	1%
EMT	1	1%
Other healthcare role	3	5%

Catholics are over-represented for East Tennessee but the sample was consistent with religious affiliation percentages in the United States (U.S. Religious Landscape Survey, 2008). The religious affiliation of participants is summarized in Table 4.

The majority of participants had health care experience (46 of 65) and of those, most were nurses (Table 4). Specialty practice areas varied widely among participants and included family practice, pediatrics, women's health, mental health and surgery. Their usual practice settings included hospitals (n = 15), outpatient settings (n = 11), colleges or universities (9) and other and/or non-specified (11). Those without healthcare experience had a variety of occupations and included teachers, engineers, social workers and homemakers.

Quantitative Data

Data from the quantitative questions on the survey will be reported. There were no missing data in the completed surveys. Scores from the STS and the SIWB as well as the question related to vulnerability will be presented. Each of the quantitative research questions and their corresponding hypotheses will be reported. Central tendencies of variables and Cronbach's alphas for the STS and SIWB are reported in Appendix H.

The mean STS score in this sample was M = 3.49, SD = .29 with scores ranging from a minimum score of 2.60 to a maximum score of 3.93. In terms of individual items within the STS, the lowest mean score (M = 2.91, SD = .67) was on the item "Letting others help me when I need it". This mean score was significantly different from the mean scores of other items for this sample as tested by ANOVA (F = 3.25, p = .045). The highest mean item score (M = 3.91, SD = .29) was on the item "having an ongoing interest in learning. These findings will be discussed in

Chapter 5. Internal consistency of this scale was estimated by an acceptable Cronbach's alpha ($\alpha = .84$).

The mean SIWB score was *M* = 4.40, *SD* = .50 with scores ranging from a minimum score of 2.58 to a maximum score of 5.0. Internal consistency of this scale was estimated by an acceptable Cronbach's alpha ($\alpha = .88$). Vulnerability was measured as responses to the question, "to what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip". Scores on this question ranged from a minimum score of 1, never, to a maximum score of 7, always. The mean score was *M* = 2.97, *SD* = 1.23, thus, participants rarely felt more than moderately vulnerable, as defined in this study, during their mission trips. SIWB scores and vulnerability scores will be discussed in greater detail in Chapter 5.

Research Question 1

What are the levels of self-transcendence and spiritual well-being in this sample of mission participants and how do levels of self-transcendence in mission participants compare with self-transcendence levels in other populations that have been studied? It was hypothesized that the mean STS scores of this sample would be different from mean scores of participants in other comparison studies. A non-directional hypothesis was tested because a result in either direction would be important (Table 5). As predicted, the mean STS score for this sample (*M* = 52.49, *SD* = 4.36) was significantly higher than the mean scores of Reed's (1991) study of elderly adults and the 2.99 difference between the means was statistically significant ($t(118) = 2.80$, $p = .006$, two-tailed, 95% *CI* .87-5.12, $r_{pb}=.25$). The 2.19 difference between the mean of the Coward (1991) study of women with breast cancer was statistically significant ($t(170) = 2.76$, $p = .006$, two-tailed, 95% *CI* .63-3.75, $r_{pb}=.20$). The 4.79 difference between the mean of the

Table 5

STS Comparisons with other Studies

Study/ Population	*n*	*M* age	STS *M*	*SD*	*t*	*df*	*p*	*CI* Lower	*CI* upper	r_{pb}
Reed (1991) Elderly adults	55	88	49.5	7.2	2.80	118	.006	.87	5.12	.25
Coward (1991) Women with breast cancer	107	61	50.3	5.4	2.76	170	.006	.63	3.75	.20
Coward (1996) Middle aged adults	146	46	47.7	6.9	5.15	209	.000	2.95	6.62	.33
Ellermann & Reed (2001) Health adults	133	43	49.4	6.0	3.70	196	.000	1.44	4.74	.25
Runquist & Reed (2007) Homeless adults	61	42	46.6	7.5	5.42	124	.000	3.74	8.04	.43

Coward (1996) study of middle-aged adults was statistically significant ($t(209) = 5.15$, $p = .000$, two-tailed, 95% *CI* 2.95-6.62, r_{pb}=.33). The 3.09 difference between the mean of the Ellermann and Reed (2001) study of healthy adults was statistically significant ($t(196) = 3.70$, $p = .000$, two- tailed, 95% *CI* 1.44-4.74, r_{pb}=.25). The 5.89 difference between the mean of the Runquist and Reed (2007) study of homeless adults was statistically significant ($t(124) = 5.42$, $p = .000$, two-tailed, 95% *CI* 3.74-8.04, r_{pb}=.43). These finding will be discussed in greater detail in Chapter 5.

Although there were no a priori hypotheses comparing SIWB scores with other samples, the SIWB scores in this study were statistically significantly higher than SIWB scores in previous studies (Table 6). The 3.75 difference between the mean of the Daaleman and Frey (2004) study of adult outpatients was statistically significant ($t(572) = 3.39$, $p < .000$, two-tailed, 95% *CI* 1.58-5.92, r_{pb}=.14). The 5.08 difference between the mean of the Frey, Pedrotti, Edwards & McDermott (2004) study of Catholic high school students (age 14-18) was statistically significant ($t(640) = 4.49$, $p < .000$, two-tailed, 95% *CI* 2.86-7.30, r_{pb}=.17). The 8.69 difference between the mean of the Daaleman, Perera and Studenski (2004) study of elderly adults was statistically significant ($t(340) = 9.77$, $p < .000$, two-tailed, 95% *CI* 6.94- 10.44, r_{pb}=.47).

Research Question 2

What are the relationships between self-transcendence, spiritual well-being, vulnerability and demographic variables (i.e., age, gender and number of mission trips in which an individual has participated)? Each of these hypotheses will be briefly discussed. It was hypothesized that there would be a positive relationship between age and STS scores; however, a non-directional hypothesis was tested because a change in either direction would be important. Contrary to prediction there was not a statistically significant correlation ($r = -.21$, $p = .093$, two-tailed)

Table 6

SIWB Comparisons with Other Studies

Study/ Population	*n*	Age Range	SIWB *M*	*SD*	*t*	*df*	*p*	*CI* Lower	*CI* upper	r_{pb}
Daaleman & Frey, (2004) Adult outpatients	509	*M* = 46.8	49.14	8.63	3.39	572	.000	1.58	5.92	.14
Frey, Pedrotti, Edwards & McDermott, (2004) Catholic school students	577	14-18	47.81	8.88	4.49	640	.000	2.86	7.30	.17
Daaleman, Perera & Studenski, (2004) Elderly adults	277	65-81+	44.20	6.55	9.77	340	.000	6.94	10.44	.47

between age and STS scores in this sample (Appendix I). This finding is inconsistent with previous studies and will be discussed in greater detail in Chapter 5. It was hypothesized that mean STS scores for men would be different from those of women. A non-directional hypothesis was tested because a result in either direction would be important. As predicted, the mean STS score for men (*M* = 3.39, *SD* =.28) was lower than for women (*M* = 3.54, *SD* = .28) and the .15 difference between the means was statistically significant (t (63) = -2.012, p = .048, two-tailed, 95% *CI* = -.31- -.001, r_{pb} = .25) (Appendix J). This finding is consistent with the literature as discussed in Chapter Two. This finding will be discussed in greater detail in Chapter 5.

It was hypothesized that mean SIWB scores for men would be different from those of women. A non-directional hypothesis was tested because a result in either direction would be important. Contrary to prediction, the mean SIWB score for men (*M* = 4.36, *SD* = .49) was not significantly different from the mean SIWB for women (*M* = 4.42, *SD* = .51), (t = -.45 (63), p = .66, two-tailed, 95% *CI* = -.33-.21, r_{pb} = .05) (Appendix K).

It was hypothesized that there would be a positive relationship between STS and SIWB scores; however, a non-directional hypothesis was tested because a relationship in either direction would be important. As predicted there was a statistically significant correlation (r = .455, p = .000, two-tailed) between STS and SIWB scores in this sample (Appendix L). This finding is consistent with Reed's Theory of Self-transcendence and previous studies and will be discussed in greater detail in Chapter 5.

It was hypothesized that there would be a relationship between STS scores and scores on the quantitative question measuring vulnerability. A non-directional hypothesis was tested because a result in either direction would be important. Contrary to prediction there was not a statistically significant relationship between STS scores and scores on the question measuring

vulnerability (r = -.003, p = .98, two-tailed). To examine the possible curvilinear effect of vulnerability on STS scores, vulnerability was centered at its mean. The variable vulnerability (centered) was entered into the regression equation first, and then vulnerability (centered) squared was added to the equation. An examination of the distribution of the residuals did not indicate a problem with normality. An examination of the scatterplot of the predicted values and the residuals did not indicate a problem with homoscedasticity. Tolerance equaled .899 suggesting no problem with multicollinearity. There was not a curvilinear relationship between the variables (Appendix M). Vulnerability will be discussed in greater detail in Chapter 5.

Although there were not hypotheses related to the other demographic variables, a number of analyses were performed and no significant relationships were found between STS or SIWB scores and demographic variables including occupation, religious affiliation, number of mission trips and length of time since the last mission trip.

Qualitative Data

Research questions three, four and five were answered by analysis of free text responses to open-ended questions. There were no missing data in the qualitative text responses. Themes emerging in the responses to each of the four free text questions will be discussed. Additional comments made by participants will be reviewed.

Research Question 3

What factors and experiences do participants report as evidence of self-transcendence during and following the mission experience? This research question was answered by analysis of free text responses from the question, “what did your mission trip mean to you?” Several themes emerged from the responses and these themes will be supported by participant quotes. Further discussion of these findings will be found in Chapter 5.

Statements about faith were the most frequent responses. Gaining a different perspective of the world was also mentioned by a number of participants. Comments about working with others, both within the mission team and with those being served by the mission, were common responses. The language used by participants illustrated the impact of the mission trip on these individuals. Each of these themes will be discussed in greater detail.

Faith responses included many comments about living out one's faith through participation in the mission. Comments included, " [the mission was] an opportunity to participate in God's plan as it unfolds around us" and "I am the hands and feet of Jesus Christ".

Several participants described the mission as "life changing". One participant stated "It was actually a time where God moved me beyond myself, if that makes sense". Another said "I am acutely aware of how God has grown me, given to me in the context of my supposed 'going to serve'. My personal relationship with Christ has been strengthened in every instance…" One stated "my first mission trip…was probably the single most significant event I could have had at age 40."

Many participants commented on how the mission had broadened their view of the world and refocused their priorities with comments such as "(the trip) put my life in an incredible perspective." Responses included "I had no idea how insulated I was in my lifestyle", "It put my life in an incredible perspective" and "the world is bigger than what I am surrounded by everyday". Several participants also commented on how thankful they were for the things they had with comments such as "I came home feeling like I was indeed rich and didn't even know it".

Many participants commented on the opportunity to help others through the mission. For example one said "I was able to use gifts God has given me to help others". "It was a time of

living out my faith through trying to help others in some meaningful way and, perhaps, trying to have a positive impact in the lives of some impoverished persons whose life situations are continuously almost unimaginably dire and defeating." Another stated "…taking the eye patches off of people who had been blind and then could see- what greater experience could there be?"

Participants also developed a greater appreciation for diversity as evidenced by several statements. A participant described the experience as "a growth opportunity in appreciation of other people as part of the Body of Christ." Another stated that "there are people in the world who look differently (sic) on the surface and suffer greatly with a grace and dignity I could never even begin to comprehend, let alone imitate-although it certainly doesn't stop me from trying."

In addition, participants commented on finding meaning through working with their team members. Comments included "we found what was good in each other and maximized the gifts and talents that we brought". "We had a diverse group of individuals that volunteered for the trip, serving diverse people, yet it worked well". The camaraderie that developed was apparent in statements such as "mostly we laughed and formed a new family". "My joy increased by getting to work alongside fellow believers, Nationals and Ex-pats that I normally would not come into contact with", stated another participant. Yet another participant commented, "It was also a time of sharing with other mission team members as we learned together of the great needs and of our own potential to mitigate the crushing oppression and overwhelming poverty that we encountered on a daily basis in a variety of settings."

Research Question 4

What lessons have mission participants learned about participating in missions? This research question was answered by analysis of free text responses to the questions "after participating in a foreign mission trip, what things would you have liked to have known before

you went?" and "are there any other things that you think would be helpful for future mission participants to know?"

An important theme encompassed the need for more cultural training prior to the mission with 22 participants making comments about the need for more cultural training prior to the trip. Thirteen participants specifically mentioned the need for language skills, such as "I wish I had had a better grasp of the language" and "I still wish I had a more working knowledge of the Spanish language." Being prepared for cultural differences and realizing that different things may be valued in the country being served was also mentioned. A participant said "I tried to familiarize myself with some of the cultural norms and practices, but still probably was offensive and did not even know…"

Being prepared for the living conditions in the region being served was prevalent in the responses. Many participants stated that they were not prepared for the depth of economic differences. A participant said "be prepared for the everyday comforts to be left in the US. We even take a warm shower for granted or that there are places without an outhouse." Another commented on what future participants need to know stating "they need honest knowledge about living conditions. Some people who went with me really didn't know much about it. 'Hot' to them meant air conditioning. Somehow hot didn't equate to 115 degrees."

Cultural comments also were made cautioning against trying to Americanize other countries. A participant commented, "You are going to serve, not to be paternalistic and show people a better way." Another stated, "don't take America with you. The US is a great country but you cheat yourself of the wonder of a different country if you won't try the food, won't go out with national believers. They love their country too. Learn what they love and learn to love it yourself even if it is very different from home."

Within the cultural context, participants commented on understanding the real needs of those being served. Statements included "have your eyes always open and listen intently…" and "listen more than speak.". A participant stated, "I think one should listen to what the wants of the village people are, and not 'push' or 'force' what we, the participants think or feel is right or needed."

Being flexible and open-minded was at the forefront of responses. Thirteen participants made statements reflecting this theme, often simply stating "be flexible" and "be open minded"; however, negatively stated comments such as "watch your attitude" were also present. One participant's statement summarizes this theme; "…be open to each day's possibilities and challenges…be flexible and maintain a good sense of humor."

Some participants discussed things related to their roles and logistics of the mission trip. Some participants felt unsure about their roles and wanted those roles to be defined more clearly. One specific suggestion was to have protocols for treatments and prescribing. Several mentioned the importance of knowing what items and supplies will be needed on the trip.

Several respondents felt that mission participants cannot truly be prepared beforehand for what they would experience. One commented, "you can't prepare for it, to make someone think they can handle it before they go is a great disservice." Another said, "I was pretty well informed. They can only prepare you so much but they can't tell you everything about it and you don't understand until you go."

Finally, many participants commented on the emotions that would likely be evoked on and as a result of a mission trip. Most participants described the mission trip as "rewarding" or as "a blessing". One stated, "expect to process the experience over a long time after the actual experience itself." Another participant encouraged keeping a journal of the trip.

Research Question 5

What experiences do participants describe as evidence of vulnerability during their mission experience? This research question was answered by analysis of free text responses to the question, “Please describe any times that you felt unsafe, vulnerable or inadequate during your mission trip”. Responses to this question generally fell into two categories: safety issues or feeling inadequate. Both of these areas will be discussed.

Comments about safety issues generally fell into three categories, violence or potential for violence, infrastructure issues or being alone or lost. Inadequacies related to either not being able to meet the needs of people in the region being served or things like language deficiencies. Details about each of these areas follow.

Participants felt unsafe when they were in countries during times of civil or political unrest. One mentioned feeling unsafe “in Indonesia with contra rebel snipers in the area.” Another stated, “political unrest within the country produced feelings of uncertainty about safety and global vulnerability.”

The surroundings made several participants uneasy. For example, a participant spoke of “razor wire on walls surrounding homes, so many gates and bars on windows.” One commented, “sleeping at night in an upstairs area enclosed with locked iron gates at entrances and in a walled site with night guards on duty gave a semblance of safety but also emphasized the need for all these extra precautions.” Another said, “one night they took us out to eat and there were armed guards-not with the tiny police issue guns we see here in the states, but the military machine guns you see on TV- to look out after vehicles in the parking lot.”

Some participants mentioned specific situations that made them feel unsafe. A participant stated, “When we would leave many people crowded around our bus and several times the bus

was shaken back and forth while we were on it." Another mentioned "a mob shouting and carrying on at the gates of the hospital late into the night…" Others spoke of "rocks being thrown at us" and being "searched at gunpoint."

Participants were concerned about their safety in transit during their mission trips with concerns about navigating streets as a pedestrian, poor road conditions, mudslides in the roads and marginally maintained vehicles and aircraft. Several were concerned about being alone, possibly getting lost and not being able to see in dimly lit areas. One stated that "the taxis were a scary adventure…people in Ghana drive much worse than anywhere else I've been." Participants spoke of "traveling through the mountains on a Chicken Bus", and feeling vulnerable when they had to "trust aircraft maintained in Haiti." One mentioned "trying to pick up airspeed and altitude to clear the mountain at the end of the airstrip in South America in a small airplane during a rainstorm."

Many participants mentioned feeling inadequate on their mission trips consistent with Reed's (2003) definition of vulnerability. Some of these comments were related to the needs of those being served such as "feeling inadequate is a frequent feeling. There's no way to meet all the needs." Several people felt inadequate due to lack of knowledge of the language and not being able to communicate effectively. One participant said, "when we were seeing patients in the morning you would look up and only see a sea of people that needed medical care desperately that became overwhelming …" Another participant had a different take on inadequacy and said "feeling inadequate is one of the best things a westerner can feel and I need to feel it more…visions of hungry children, beds of TB patients or babies in need of surgery that no one there can perform, I cannot help, I go to bed often saying, 'God what are we doing to do

for them today?' They are still there. They are still hungry. I cannot forget them. What must we do?"

Summary

The mean STS and SIWB scores in this sample were higher than the mean scores from other studies and the difference between the means was statistically significant. The mean STS score for men was lower than for women and the difference between the means was statistically significant. There was not a statistically significant difference in SIWB scores based on gender and there was not a statistically significant relationship between STS scores and scores on the question measuring vulnerability. There was a statistically significant positive correlation between STS and SIWB scores.

Themes that emerged from the question "what did your mission trip mean to you" were consistent with the pandimensionality of ST. The most frequent responses were statements about faith. Some participants gained a different perspective of the world during their trips. They found meaning through providing aid to others and in the process, developed bonds with team members.

Lessons that participants learned and things they would have liked to have known before their SFHCM included more knowledge of the culture of the location being served. Several voiced the need to learn the language of the mission location. Participants also expressed the need to be prepared for the living conditions in the area being served. Some felt that there is no way to adequately prepare people before trips and that the settings must be experienced to be understood.

Participants commented about the importance of being flexible and open-minded. Some participants felt future mission participants should be made aware of the emotions that would

likely be evoked on and as a result of a mission trip. Although few in numbers, some participants discussed concrete logistical suggestions for future mission trips.

Experiences that participants describe as evidence of vulnerability tended to reflect safety issues or feelings of inadequacy. They described violence and threats of violence in the vicinity of their mission locations. Transportation problems such as poor road conditions and marginally maintained aircraft made some participants feel vulnerable. Others described feelings of inadequacy in trying to meet the needs of so many.

Chapter 5- Discussion

The purpose of the study was to investigate the presence and possible relationship of self-transcendence and spiritual well-being in persons who have completed at least one SFHCM. Very little literature exists regarding SFHCM; however, these trips are becoming increasingly commonplace. Profound personal growth is a recurrent theme in the anecdotal literature on this subject as well as in my personal experience. The descriptions of this growth experience in the literature are quite similar to the concept of self-transcendence as defined in the nursing literature.

Reed's (2003) middle range theory of self-transcendence was used as the conceptual framework for this study. The major concepts of the theory are vulnerability, self- transcendence (ST) and well-being and relationships between these concepts are posited. In Reed's theory, increased levels of vulnerability are expected to impact levels of ST positively; however, a non-linear relationship is suggested in that very high or very low levels of vulnerability may not have an influence on ST. The relationship posited between ST and well-being is a direct and positive one in that increased levels of ST are positively associated with an increased sense of well-being (Reed, 2003).

Self-transcendence has been studied in a number of different populations but has not been documented in mission participants. Thus, another goal of this study was to investigate the phenomenon of ST in a different population. Additionally, with the dearth of literature related to missions, garnering usable knowledge from those who have participated might be beneficial for future missions. Another goal of this study was to gain valuable lessons learned from participants in SFHCM.

A mixed methods design was utilized in this study. Quantitative data, including demographic variables and scores on the STS and SIWB, were collected and analyzed. Data-rich qualitative responses to open-ended questions provided a better understanding of mission experiences. Multiple levels of analysis were used with both data sets. Quantitative data were examined with descriptive statistics, determination of normality followed by inferential statistics. Qualitative data were initially read and coded with data reduction accomplished with iterative readings. Both data sets were compared for convergence in terms of the extent to which each data confirmed and supported each other. Triangulation of these data sets provided a balanced perspective of what participants in SFHCM are experiencing.

Strengths and Limitations

Strengths

There are several strengths in this study. This study provides information about an area in which little is known. The use of mixed methods through the combination of quantitative and qualitative data provides a descriptive richness not consistently found in other studies related to ST. Finally, online data collection proved to be a very useful, cost effective strategy.

This study fills a gap in the health care literature related to the thousands of people who participate in SFHCM. Nurses are frequently involved in SFHCM, as seen in the percentage of the sample who were nurses. However, the nursing literature is sparse in terms of research focusing on these endeavors. This study provides more objective data to complement anecdotal reports. The study findings provide useful, practical suggestions, such as increasing cultural training prior to missions, that can be applied in future SFHCM and might possibly have applications to humanitarian missions, military missions and disaster response.

The quantitative data provide a test and further explication of Reed's ST theory while examining a different population. This new data set allows for comparisons with previous studies and provides an additional benchmark for subsequent studies. The qualitative data supports ST with rich descriptions of the mission experience. The qualitative data also supports and clarifies the quantitative data in this study. Combining both data sets allows for greater explanation and interpretation than either data set provides individually. Conflicting findings between data sets provide ideas for future research and testing.

The actual sample obtained was a strength of this study. Individuals from a variety of churches participated in the study. A wide age range was also represented. Although a larger *n* would have been very beneficial, the sample size in this study was comparable to several of the comparison studies of ST.

Advantages of online data collection include participant anonymity and ease of data collection. Participants had the ability to complete the survey within their own time frame and to complete responses in an environment of their choice. In addition, the survey format made for a relative ease of data transmission and utilization in statistical programs.

Limitations

There are several limitations in this study. Limitations in this study relate to the sample size and composition, the measures used and online data collection. Each of these issues will be discussed.

The sample size was small and even though there were several statistically significant findings, the chance of observing small and even moderate effects was limited. The sample was obtained from East Tennessee, limiting generalization to other populations. In addition the

religious denominations represented by this sample may not be representative of other geographic areas, again limiting generalizability.

There are possible pitfalls of utilizing online surveys. The possibility existed that participants completing the survey may not be representative of the community in terms of age or gender. Since participants' self-selected in terms of participation in this study, their responses may not be representative of mission participants at large. The majority of participants had participated in multiple missions suggesting that their experiences were positive in that they repeatedly chose to participate in SFHCMs. Although participants described third world squalor, comments about the SFHCMs were positive. There may be an element of social desirability to respond positively to the survey questions. Since most of the participants had positive experiences and continued to go on missions, the potential existed to under-represent those who had negative mission experiences.

Secondly, because responses were anonymous, there was not an opportunity for clarification of participants' free text responses. Responses were limited to 3000 character spaces, in effect, limiting the length of participants' answers. The potential existed to cut off a participant's response to a free text question.

The quantitative measure of vulnerability might be considered a weakness in this study. Unfortunately, there is not a well-researched tool to measure this important construct. The quantitative measure utilized was simplistic and was derived from the ST literature. Qualitative responses helped to clarify participants' experiences of this phenomenon.

Being mindful of the strengths and limitations of this study, the findings will be discussed relative to ST theory. Implications of this study to future SFHCM follow. Suggestions for future research are then presented.

Self-Transcendence Theory

Participants in this study had experienced ST as operationalized by their scores on Reed's instrument. In fact, their scores on the STS were significantly higher than participants in five other studies examining this construct. There are a number of possible reasons why participants in this study had higher STS scores. For example, one might speculate that participants who already were actively involved in faith-based activities would likely score higher on a spirituality measure. Although a causal link between participating in a SFHCM and ST cannot be made, the qualitative responses provide support for the quantitative data that participants in SFHCM experience ST. The qualitative data also help to describe and explain how participants experienced ST.

In review, Reed defines self-transcendence "the expansion of self-boundaries in multi-dimensional ways: inwardly in introspective activities; outwardly through concerns about other's welfare; temporally whereby the perceptions of one's past and future enhance the present; and transpersonally through connections with a higher or greater dimension (Reed, 2007, page 1). Participant's free text responses highlight experiencing ST in each of these dimensions.

Inward expansion

One of the most common descriptions of participation in a SFHCM is that the experience is "life changing". This is found throughout both the anecdotal literature and the text responses in this study. While these words are often overused in describing important life events, additional free text responses speak to various aspects of the types of growth experienced.

Many participants spoke of "putting things into perspective" after participating in the SFHCM. Visual metaphors are found throughout the text responses such as descriptions of the

experience as “eye opening” and “made me look at everything with new eyes”. Certainly these comments speak to the profound introspection that accompanied this experience.

On a more concrete note, several participants mentioned that it would be helpful for future mission participants to be aware of the emotional impact of being involved in a SFHCM. Keeping a journal throughout the SFHCM was suggested. This activity aids in personal reflection both during the trip and retrospectively after completion of the trip. In addition, journaling might be a helpful tool in the exploration of the other dimensions of ST.

Outward Expansion

Helping others is a cornerstone of mission work and thus is a paramount driver for these activities. Thus, concerns about others abound in participant responses given the overt focus of SFHCMs. The growth experienced through helping others is apparent in participant comments such as “One cannot describe the look in someone’s eyes as they turn to you for help in quiet desperation or the glint of gratitude in those same eyes when you are done.”

Beyond the obvious feelings of gratification from helping others, participants also spoke of growth experienced through working with fellow participants during a SFHCM. They spoke of “sharing with team members” and relying on one another during the trip. The unique qualities and strengths of each member tended to meld into a strongly unified team experience. They also had suggestions for ways to improve preparation for future volunteers; some very concrete and some spiritual. These suggestions will be discussed in the Implications section of this chapter.

Temporal Expansion

The most profound statements were made by participants who felt that their life’s calling was identified during the SFHCM.

> God gave me a heart for missions and people of the world in need as a result of my mission trips. He has used my mission experiences to reveal His purpose for my life. That is not to say I know exactly what I'm going to be doing and where I'm going during every season of this life. But it is to say that I am secure in the fact that God has called me to love Him through loving others, both in my own personal mission field (where He's placed me for the time being) as well as all over the world.

Several individuals stated that they had decided to pursue a career in nursing to better serve in the mission field. A participant said, "During my first medical mission experience, God revealed to me what his plans were for my life. Thus, the reason that I am back in school completing my BSN degree. (sic)" Another said, "It helped shape my career path initially, and each subsequent mission re-affirmed that career." Yet another stated, "It's changed my major and gave me the desire to learn a foreign language. It's completely changed my life."

Others spoke of how the SFHCM was perhaps an opportunity to practice their profession as they had envisioned in the past.

> I felt really back to basics. Practice wasn't cluttered with paperwork, gizmos that focus attention away from the person in bed, or stress. It was great to be dealing 1:1 with people, taking time…Professionally, I did a good, good, job- real nursing.

Others spoke directly of returning to a place during their SFHCM they had lived or visited in the past and rendering help in the present, describing what might be termed a "full circle" experience.

> It was a chance to return to a place where I had lived 30 years ago. Both myself (sic) and the country had changed greatly but I felt a kinship with the people and was gratified to do something again to help their lot in life…

Transpersonal Expansion

As discussed in the findings, the majority of free text responses regarding what the SFHCM meant to participants were in the realm of transpersonal growth. Many spoke of relying on their faith and living out their faith. Being "more in touch with God" and having an awareness of "how God has grown me" were ways that participants expressed the ST that they experienced.

In summary, the free text responses are clearly demonstrative of self-transcendence through participation in a SFHCM. Aspects of pandimensional growth are evident in every participant's text responses. Most participants reported inward growth with a greater awareness of their own beliefs, values and dreams. Reaching outward to others was a main impetus for going on the trip and a benefit of participating in the SFHCM. Integration of past and future in ways that enhance the relative present was noted in several participants' comments. Finally, transpersonal growth through connection with divine dimensions beyond the typically discernible world was evident.

Self-Transcendence, Spiritual Well-Being, Gender and Age

STS scores were statistically significantly higher for women than men in this study, consistent with previous research (Bean & Wagner, 2004; Coward, 1996; Ellermann & Reed, 2001). However, qualitative responses, as related to dimensions of ST, did not appear to differ based on gender. Responses from both men and women were found in every category of coding, representing all dimensions of ST as well as all aspects of vulnerability. The possibility exists that men may express ST differently than women. Alternatively, there could be an element of gender bias in the STS.

There was not a statistically significant difference in SIWB scores based on gender. This finding is consistent with previous research (Frey, Daaleman & Peyton, 2005; Daaleman & Frey,

2004). In previous studies there have been gender differences on the life-scheme subscale of the SIWB; however, no statistically significant differences were found in this sample (Daaleman, Frey, Wallace & Studenski, 2002; Daaleman, Perera & Studenski, 2004; Frey, Pedrotti, Edwards, & McDermott, 2004). According to Frey, Daaleman and Peyton (2005) women expressed a "more coherent view of meaning in their lives"(p. 567). As previously stated, qualitative responses in this study did not illuminate a variation in types of free text statements based on gender.

STS scores in this study were not statistically significantly correlated with age. This finding is not consistent with previous research or Reed's initial conceptualization of self-transcendence (Ellermann & Reed, 2001; Reed, 1986). Coward (1996) suggested that self-transcendence may be experienced at any time during the life span and may be associated with living a meaningful life. Both quantitative and qualitative findings in this study appear to support Coward's viewpoint. While no conclusions can be drawn about the relationship between self-transcendence and age based on the findings in this study, further research may be worthwhile.

Vulnerability

In terms of vulnerability, what appears as incongruence in the quantitative and qualitative data is actually an interesting finding to discuss. Participants had relatively low scores on the question, "to what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip?" However, participants described experiences that would likely be perceived by the average reader as quite vulnerable situations. Violent encounters, dangerous travel conditions, being lost in a foreign country, and an inability to communicate all suggest vulnerability.

Reed (2003) defines vulnerability situationally as awareness of personal mortality within the broad context of experiencing a life event that heightens one's sense of mortality, inadequacy

or vulnerability. In the majority of research using Reed's theory of self-transcendence, vulnerability is assumed; for example, vulnerability is based on life circumstances such as being homeless or having a lethal medical diagnosis such as having HIV or cancer. In this study the qualitative statements provide support for the supposition that SFHCMs can place participants in vulnerable situations. Strikingly, the participants did not have the perception of being vulnerable even though they were in situations that they described to the contrary.

Two very different definitions of vulnerability are used in the nursing literature (Malone, 2000). Vulnerability is viewed in a negative context as something to be avoided or susceptibility to something harmful or dangerous. Vulnerability is also characterized as "the common condition of all sentient beings" (Malone, 2000, p. 2).

In a concept analysis, Purdy (2004, p. 28) identified "three defining attributes of vulnerability as susceptibility, chance (and) openness" with openness being the central tenet. This analysis was based in part on dictionary definitions of openness such as "exposed to general view or knowledge; exposed or vulnerable to attack or question" (Merriam-Webster's Online Dictionary, 2008). This dichotomous definition underscores being both exposed and receptive (Purdy, 2004). While few participants in this study scored high on the measure of vulnerability, the importance of "being open" during a mission trip was echoed by a large number of participants in the free text responses.

Vulnerability has been described as transforming and antecedent of well-being in a grounded theory study (Jones, Zhang & Meleis, 2003). The resultant theory generated from this study is remarkable similar to ST theory. Vulnerability was seen as stimulating a "growth process of both expanding and transcending self. The definition of vulnerability used was also

consistent with openness and the dichotomous nature of outcomes, as either positive or negative well-being was further delineated.

One might speculate that an individual's perception of minimal vulnerability, despite specifics recounted, was influenced by spiritual beliefs, positive outlook or the effect of retrospection. An example of the spiritual nature of this implied invulnerability is seen through a participant's description of her feelings of vulnerability.

> As far as safety and vulnerability, The Lord gave me tremendous peace amidst the dark spiritual environment. I was chased by a Haitian woman with a machete pointed at me but never felt fear. Later I realized that it had been a dangerous situation, but God kept me in His peace. There were voodoo drums beating at night as a warning to us, but again, I never felt fearful. I know it was because so many were praying for our protection and for us to be able to complete our mission.

The vulnerability measure used in this study was based on ST theory and was very simplistic. Instead of asking a single question, asking three different questions might have been more useful in this study and would have better quantified the extent to which participants felt unsafe, vulnerable and inadequate. Re-conceptualizing vulnerability and further delineation of this concept, may be very useful. A clearer definition could be operationalized consistently and would be a further step toward the development of an instrument to measure this concept.

Spiritual Well-Being

In this study STS scores correlated with SIWB scores. The possibility exists that the two instruments used in this study share similarities in terms of measuring spirituality. Although the instruments measure different aspects they are both solidly within the spiritual domain and it is

possible that an individual's scores on both measures would be similar. However, the findings are consistent with ST theory and with previous research.

Many studies have found significant correlations between STS scores and a measure of well-being consistent with the findings in this study (Bean & Wagner, 2004; Ellermann & Reed, 2001; Coward, 2003, Reed, 1986; Runquist & Reed, 2007; Upchurch & Mueller, 2005). ST theory postulates that well-being is both an outcome and a correlate of ST (Reed, 2003). This is an important correlation in that facilitating ST theoretically has the potential to promote general well-being.

Well-being is loosely defined within ST theory and has been defined and operationalized in a variety of ways using vastly different measures as discussed in the Review of Literature. Further delineation of this concept within this theory and its application to overall well-being and health promoting behaviors would be useful to better understand positive benefits of ST.

Unlike the gender differences on the STS, there were not significant differences in SIWB scores for men versus women. There are numerous possible explanations for this finding. The possibility exists that gender bias may be implicit within one of the instruments or subtle differences were not detected in this sample. Another possible explanation is that both men and women experience an outcome of ST equally although they might experience ST differently.

Comparisons to Non-Faith Based Mission Studies

There are differences between SFHCM conducted by faith-based teams and other types of volunteer and military humanitarian and disaster relief missions; however, the implications from this study may be beneficial in those settings as well. The literature from the aforementioned teams is remarkably similar to that of the faith-based teams as previously

highlighted in Chapter Two but the differences in groups may necessitate different training strategies.

The available literature related to humanitarian and military missions suggests that participants experience personal growth and improved morale (Beitler, Junnilla & Meyer, 2006; Bjerneld, Lindmark, Diskett & Garrett, 2004). One can speculate that these participants also experience self-transcendence. The contextual environment is different in that these participants are not part of a faith-based team and thus, may not have resources to enhance ST, particularly the transpersonal dimension. A sense of altruism or patriotism, aspects of the transpersonal dimension, may be developed in non-faith based missions. However, the holistic nature of individuals necessitates an acknowledgement of and inclusion of resources to explore the spiritual aspects of personal growth for these mission participants.

The team building implications are also very important for participants in volunteer humanitarian efforts. Participants in faith-based missions often have ongoing contact with fellow mission participants by virtue of attending the same church. Individuals in volunteer humanitarian missions may not have any further contact with team members and opportunities for group meetings after the mission become even more important for these individuals.

Educational needs for participants in disaster relief and humanitarian missions are similar to training needs of participants in SFHCMs. Albeit in different words and from a different context, respondents voiced similar concerns. A predominant theme in the humanitarian research was not being prepared for cultural differences.

Participants of humanitarian missions also stated that they did not feel prepared for some of the tasks they were required to perform or for some of the work they needed to do (Bjerneld, Lindmark, Diskett & Garrett, 2004). While voiced in a much more positive light, participants in

SFHCM repeatedly stated that mission participants needed to be flexible and open-minded. These parallel comments underscore the need for careful selection of team members and evaluation of skill mix within teams.

Implications

Nurses are often involved in SFHCMs as evidenced by anecdotal reports in the literature and the number of nurse respondents in this study. Nurses may have integral roles in training and preparation activities for missions. Findings from this study have implications in the training activities for future mission participants. Participants have stated some practical suggestions to enhance mission trips. Information from this study has potential applications to training activities for those who engage in other types of humanitarian aid and disaster responses. These areas will be discussed in greater detail.

Training Activities

In terms of specific pre-trip training, the need for more cultural training is paramount. Twenty two participants specifically suggested providing more cultural training and thirteen suggested language training prior to SFHCMs. This training should include a primer on cultural differences, value differences and basic customs. The need for language skills was repeatedly mentioned by participants. Mission sponsors should consider offering classes on the language spoken in the mission location. Additionally, hiring additional interpreters in the field can enhance communications while also boosting collegiality and adding in small part to the local economy in the area being served.

Mission participants would benefit from realistic discussions of living conditions and working conditions likely to be encountered during the mission. Many participants in this study discussed an apparent culture shock at the conditions encountered; however, several also stated

that there was no way to adequately prepare for this situation. Frank and open discussions may help to decrease the disparity between what is expected and what is encountered in the mission setting.

Some participants commented on logistic issues including team member roles, protocols and formularies. Participants mentioned that health care personnel could benefit from careful development of specific team roles. Participants also stated that it is important to allow for some flexibility in those roles. Given that team members often have not worked together, particularly in such an arena, standardized protocols for treatments and prescribing was suggested by participants and might build consistency in the care delivered. Thoughtful evaluation of supply and formulary needs prior to the trip may help to maximize the ability to properly treat patients.

Another important suggestion that thirteen participants made was to be open and flexible highlighting the importance of careful selection of participants for the SFHCM. Although any given group may not wish to exclude team members based solely on subjective evaluation of personal attributes, consideration of each team member's attitude and tolerance for ambiguity is essential. Individuals with negative, inflexible attitudes could be counterproductive to the overall mission goals.

Finally, participants in this study described many situations that were unsafe or even dangerous during their SFHCMs. Taking every precaution available to keep team members safe is important. Strict rules about traveling in groups should be enforced. Having an awareness of weather conditions and an understanding of the peril that often accompanies an event such as a heavy rainstorm is consequential to safely operate in the field. Paying heed to state department warnings about travel restrictions is another way to keep participants safe. At the minimum, organizers should make SFHCM participants aware of specific dangers in a location prior to the

trip. For example, Volunteers in Medical Missions, a Christian organization sponsoring SFHCMs, posts U.S. State Department travel warnings for countries to which trips are being planned as the first statement in the trip information section of their website (Volunteers in Medical Missions, 2008).

Disaster Response

Findings from this study have potential applications to disaster response efforts; however, differences in this form of aid may necessitate some additional considerations. Nurses participate in disaster response through a number of faith-based initiatives, government agencies, and NGOs. Comprehensive disaster responses will likely involve health care delivery in locations with disrupted infrastructure and a number of safety issues. Whereas SFHCM planners can schedule their missions to allow for planning and training, disaster response requires prompt mobilization. Potential issues illuminated in this study are particularly salient to disaster response.

Safety and security concerns are tantamount in disaster response. Stress related to security issues in the area being served and concerns about placing volunteer in harm's way are documented in military and humanitarian research (Beitler, et al., 2006; Bjerneld, et al., 2004). Participants in the current study commented on transportation issues during their SFHCM. In my personal experience, emergency flight arrangements into a bordering country were discussed with airlines in advance of a health care mission due to the risk of violence in the intended area of service and the potential need to exit the area quickly. Efforts to identify and mitigate potential security problems prior to the arrival of disaster response teams should be strongly considered. Alternative forms of transportation and/or escape routes out of dangerous areas should be a contemplated as a routine part of organizing disaster responses.

Participants in this study repeatedly mentioned the need for more training related to dissimilar cultures and languages. Due to the time-critical nature of disaster response, disaster response teams should consider developing a mechanism for “on-the-fly” education about cultural variations. Most SFHCMs have already established rapport with locals in the service area and have had an opportunity to discuss the types of services being provided. Disaster response teams are likely to be deployed to areas in which no previous contacts have been made. Good communication and negotiation skills become requisite for participating in disaster related missions. In addition, a means to secure trustworthy translators and guides could be a helpful way to deal with language differences and to clarify cultural differences.

Facing unexpected situations and thus, unexpected responsibilities could potentially be more common in disaster responses. The need to be open and flexible, as stated by participants in this study, is vital for those responding to disasters. In addition, the sponsoring organization may also need to operate with a greater degree of flexibility in providing support and guidance to response teams. More extensive pre-mission training before participants are eligible to respond to disasters may be in order due to the higher degree of uncertainty about the types of skills that will be required during the mission and the potential for disharmony as groups with different training may be working side by side.

Self-Transcendence Theory

ST theory is a middle range nursing theory. This theory can provide structure to nursing practice and research. Examination of the multi-dimensional aspects of ST illuminates some practice applications to SFHCMs as well as military, humanitarian and disaster responses.

Participants had high scores on the STS and described experiences consistent with self-transcendence. By understanding that self-transcendence is pandimensional, promoting personal

growth on all of these dimensions becomes more important. Each of these dimensions will be discussed in more detail.

ST involves a highly intrapersonal dimension toward awareness of personal philosophy, values and aspirations. One participant suggested that participants in SFHCM should consider keeping journals during the experience. This suggestion enhances reflection both during the trip and after the trip and mission leaders should encourage journaling.

Reaching out to others is another dimension of ST. Obviously helping others is a goal of SFHCMs and interaction with those being served is fundamental; however, interaction with team members must also be emphasized. Team building meetings should be part of pre-trip preparation and should possibly be continued after the trip. The lowest STS item mean score in this study was on a statement “Letting others help me when I need it”. By not asking for help, the potential for compassion fatigue (CF) exists.

Compassion fatigue may develop when individuals are empathetic and invest emotional energy in aiding the suffering. CF may be characterized as a combination of burnout and secondary traumatization (Sabo, 2006). Encouraging dialogue between mission team members is consistent with measures purported to be helpful in treating compassion fatigue (Compassion Fatigue Awareness Project, 2008; Sabo, 2006). Building a support system for mission team members may help these individuals to process their experiences and may help in other aspects of their lives.

Mission planners may need to invest in strategies to enhance the transpersonal aspect of ST. Discussing this type of growth as experienced by past participants may open the doors for growth in future participants. For example, pre-trip discussions wherein past mission participants

discuss the "life changing" aspects of the trip or in which participants comment about how the mission broadened their view of the world might be helpful.

Given the profound nature of participant responses, scheduling times for group reflection after the SFHCM would be an important consideration. Having an opportunity to share thoughts and feelings with other team members after individually processing the event may be beneficial. On one occasion in my personal experience, a SFHCM team conducted a debriefing with an outside, objective mediator to discuss both positive and negative issues associated with the mission. Information from this session was compiled to improve future missions.

The practice of debriefing has its foundations in military practice and has been characterized as a spiritual purge following a stressful mission (Overstreet, 2008). Similarly, debriefing has been used in the field of psychology for discussions on more of an emotional level. The practice of re-assembling a group to discuss what occurred during an event has also been termed "reflection" (Overstreet, 2008). In light of the significant impact SFHCMs have on participants, a scheduled time of group reflection may be quite beneficial.

Future Research

In previous nursing research, vulnerability has been somewhat vaguely defined and in large part has been assumed due to a medical diagnosis or a life situation. Findings from this study highlight the need for further research related to this concept. Qualitative work is in order to elucidate a more concrete definition of vulnerability as to whether there are objective and subjective components and to determine measurable aspects of this concept within and without the theory of ST. Conceptual refinement is needed to eventually develop an instrument to measure this concept.

Respondents in this study appeared to experience self-transcendence through participation in the trips. They overwhelmingly wanted to continue to participate in these activities. Research looking at ST in groups conducting similar missions such as volunteer responders to disasters and individuals involved in military humanitarian missions would be very useful. The anecdotal literature hints at similar positive benefits in these groups. Validating self-transcendence in other groups is a first step in developing interventions to enhance personal growth in groups who may not have a choice about participating in foreign, relief efforts.

Well-being in this study was defined in terms of spiritual well-being. Again, further nursing research about dimensions of well-being would be extremely valuable. Promoting positive health, whether that solely involves the spiritual domain, or whether that encompasses much broader physical and psychosocial domains is a charge for nurses. Understanding factors that help individuals engage in and process uniquely meaningful experiences with an eye on enhancing well-being is vital.

While this study focuses on participants of SFHCMs, the need for further research related to other types of missions would be beneficial. Organizing and conducting missions is extremely complex. Planning for disaster responses requires many of the same elements of SFHCMs; however, a different dimension in terms of planning for uncertainty exists. Further inquiry into the process of planning and training for disaster response is needed.

Conclusion

This study has contributed knowledge in general about ST theory and more specifically about vulnerability, self-transcendence and spiritual well-being in participants of SFHCMs. This knowledge provides a better understanding of the experiences of participants in SFHCMs and might be applied to training activities for future mission participants.

References

References

Bean, K. B., & Wagner, K. (2005). Self-transcendence, illness distress and quality of life among liver transplant recipients. *Journal of Theory Construction & Testing*, *10*(2), 47-53.

Beitler, A. L., & Junnila, J. L. (2006). Humanitarian assistance in Afghanistan: A prospective evaluation of clinical effectiveness. *Military Medicine*, *171*, 889- 893.

Bjerneld, M., Lindmark, G., Diskett, P., & Garrett, M. J. (2004). Perceptions of work in humanitarian assistance: Interviews with returning Swedish health professionals. *Disaster Management & Response, 2*(4), 101-108.

Christman, M.S. (2000). A personal account of a medical mission. *Journal of the American Academy of Nurse Practitioners*, *12*(8), 309-310.

Clutter, P. (2005). Medical mission to Bolivia: A photo essay. *Journal of Emergency Nursing*, *31*(2), 216-219.

Compassion Fatigue Awareness Project. (2008). Retrieved November 1, 2008 from http://compassionfatigue.org.

Coward, D. D. (1990). The lived experiences of women with advanced breast cancer. *Nursing Science Quarterly*, *3*(4), 162-169.

Coward, D. D. (1996). Self-transcendence and correlates in a healthy population. *Nursing Research*, *45*, 116-122.

Coward, D. D. (2003). Facilitation of self-transcendence in a breast cancer support group:II. *Oncology Nursing Forum* (ONF), *30*(2), 291-300.

Coward, D. D. (2006). Self-transcendence theory. In A.M. Tomey & M. R. Alligood (Eds.). *Nursing theorists and their work* (pp. 643-663). St. Louis: Mosby, Inc.

Coward, D. D. (2007). Commentary on self-transcendence and well-being in homeless adults. *Journal of Holistic Nursing*, *25*(1), 14-15.

Coward, D. D. & Kahn, D. L. (2004). Resolution of spiritual disequilibrium by women newly diagnosed with breast cancer. *Oncology Nursing Forum*, *31*(2), E1-E8.

Coward, D. D., & Reed, P. G. (1995). Self-transcendence: A resource for healing at the end of life. *Issues in Mental Health Nursing*, *17*, 275-288.

Creswell, J.W. & Clark, V. P. (2007). *Designing and Conducting Mixed Methods* Research. Thousand Oaks, CA: Sage Publications.

Daaleman, T. P. & Frye, B. B. (2004). The spirituality index of well-being: A new instrument for health-related quality-of-life research. *Annals of Family Medicine*, *2*(5), 499-503.

Daaleman, T. P., Frye, B. B., Wallace, D., & Studenski, S. A. (2002). Spirituality Index of Well-Being Scale: Development and testing of a new measure. *The Journal of Family Practice, 51*, 952.

Daaleman, T. P., Perera, S., & Studenski, S. A. (2004). Religion, spirituality and health status in geriatric outpatients. *Annals of Family Medicine, 2*: 49-53.

Decker, C. L. & Haase, J. E. (2005). The relationship of uncertainty, family, social support and resiliency to coping in adolescents with cancer. *Journal of Adolescent Health*, *32*(2), 126-127.

Decker, I. M. & Reed, P. G. (2005). Developmental and contextual correlates of elders' anticipated end-of-life treatment decisions. *Death Studies*, *29*, 827-846.

Diocese of Knoxville. (2008). Retrieved November 28, 2008 from http://www.dioceseofknoxville.org/?id=1436.

Dutt, M. (2006). Beware the long flight home. *Canadian Medical Association Journal, 175*(40) 391-392.

Ellermann, C. R. & Reed, P. G. (2001). Self-transcendence and depression in middle-age adults. *Western Journal of Nursing Research*, *23*(7), 698-713.

Ellison, C.W. (1983). Spiritual well-being conceptualization and measurement. *Journal of Psychology and Theology*, 11, 330-340.

Enyert, G. & Burman, M. E. (1999). A qualitative study of self-transcendence in caregivers of terminally ill patients. *American Journal of Hospice and Palliative Care*, *16* (2), 455-462.

Erikson, D. P. (2005). Haiti after Aristide: Still on the brink. *Current History*, *104*, 83-90.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.

Farmer, P. (2005). Global AIDS, new challenges for health and human rights. *Perspectives in Biology and Medicine*, *48*(1), 10-16.

Ferguson, L. (2004). External validity, generalizability, and knowledge utilization. *Journal of Nursing Scholarship*. *36*(1), 16-22.

Frey, B.B., Daaleman, T.P. & Peyton, V. (2005). Measuring a dimension of spirituality for health research. *Research on Aging*, 27(5), 556-577.

Frey, B.B., Pedrotti, J. T., Edwards, L. M., & McDermott, D. (2004). Cognitive spirituality and hope in Catholic high school students. *Catholic Education, 7*(4), 479-491.

Gold, S. D. (2004). Of orphans, AIDS and Africa. *Nursing 2004*, 42-45.

Goldring, M. (2006) Sowing seeds of hope. *Nursing Standard*, *20*(44), 22-25.

Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust web-based studies? A comparative analysis of six preconceptions about internet questionnaires. *American Psychologist*, *59*(2), 93- 104.

Hsieh, H., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277-1288.

Jones, P. S., Zhang, X. E., & Meleis, A. I.(2003). Transforming vulnerability. *Western Journal of Nursing Research*. *25*(7), 835-853.

Koenig, H. G. (2008, February). *Religion, spirituality and healthcare: Background, research and clinical implications*. Paper presented at the Second Annual Faith Healthcare Conference, Jefferson City, TN.

Knoxville-area churches ranked according to Sunday attendance, then total membership. (2007, September 16). *Knoxville News Sentinel*. p. C3.

Malone, R. E. (2000). Dimensions of vulnerability in emergency nurses' narratives. *Advances in Nursing Science*, *23*(1), 1-11.

Maselko, J., Kubzansky, L., Kawachi, I., Seeman, T., & Berkman, L. (2007). Religious service attendance and allostatic load among high-functioning elderly. *Psychosomatic Medicine*, *69*(5), 464-472.

McClain, C. S., Rosenfeld, B., & Breithart,W.(2003). Effect of spiritual well being on end-of-life despair in terminally-ill cancer patients. *Lancet*, *361*, 1603-1607.

McDowell, I. & Newell, C. (1996). *Measuring health. A guide to rating scales and questionnaires*. New York: Oxford University Press.

Merriam-Webster's Online Dictionary. (2008) Retrieved November 6, 2008 from http://www.merriam-webster.com/dictionary/openness.

Munro, B.H. (2005). *Statistical methods for health care research*, (Rev. ed). Philadelphia: Lippincott, Williams & Wilkins.

Nygren, B., Alex, L., Jonsen, E., Gustafson, Y., Norberg, A., & Lundman, B. (2005). Resilience, sense of coherence, purpose in life and self-transcendence in relation to perceived physical and mental health among the oldest old. *Aging & Mental Health*, *9*(4), 354-362.

Overstreet, M. (2008, October). *Debriefing*. Paper presented at the First Annual Simulation Conference Empowering Nurse Educators In Tennessee, Nashville, TN.

Purdy, I. B. (2004). Vulnerable: a concept analysis. *Nursing Forum*. *39*(4), 25-33.

Ramer, L., Johnson, D., Chan, L., & Barrett, M. T. (2006). The effect of HIV/AIDS disease progression on spirituality and self-transcendence in a multicultural population. *Journal of Transcultural Nursing*, *17*(3), 280-289.

Reed, P. G. (1986). Developmental resources and depression in the elderly. *Nursing Research 35*(6), 368-374.

Reed, P. G. (1989). Mental health of older adults. *Western Journal of Nursing Research*. *11*(2), 143-163.

Reed, P. G. (1991). Toward a nursing theory of self-transcendence: Deductive reformulation using developmental theories. *Advances in Nursing Science*, *13*(4), 64-77.

Reed, P. G. (1991). Self-transcendence and metal health in oldest-old adults. *Nursing Research*, *40*(1), 5-11.

Reed, P. G. (1996). Transcendence: Formulating nursing perspectives. *Nursing Science*

Quarterly. *9*(1), 2-3.

Reed, P. G. (1998). The place of transcendence in nursing's Science of Unitary Human Beings: Theory and research. In M. Madrid (ed.) *Patterns of Rogerian knowing* (pp. 187-196). New York: NLN.

Reed, P. G. (2003). The theory of self-transcendence. In M.J. Smith & P.R. Liehr (Eds.). *Middle range theory for nursing* (pp. 187-196). New York: Springer.

Reed, P. G. (2007). Self-Transcendence Scale. Received via email correspondence with Dr. Reed (preed@nursing.arizona.edu).

Religious organizations in Knoxville (2008). Retrieved November 28, 2008 from http://www.knoxvilletennessee.com/ch.html.

Runquist, J. J & Reed, P. G. (2007). Self-transcendence and well-being in homeless adults. *Journal of Holistic Nursing*, *25*(1), 5-13.

Sabo, B. M.(2006). Compassion fatigue and nursing work: Can we accurately capture the consequences of caring work? *International Journal of Nursing Practice*, *12*, 136-142.

Smith, S. (2006). Beyond a career: One nurse's call to care. *Nebraska Nurse*, June, July and August, 2006, p. 21.

Soliday, S. (2006). A medical mission in Jamaica. *ASHA Leader*, November 7, 2006, 55.

Stinson, C. K. & Kirk, E. (2006). Structured reminiscence: An intervention to decrease depression and increase self-transcendence in older women. *Journal of Clinical Nursing*, *15*(2), 208-218.

Taft-Morales, M. (2005). Haiti: Developments and US Policy since 1991and Current

Congressional Concerns. *Congressional Research Service Report for Congress*.

Tennessee Baptist Convention. (2008). Retrieved November 28, 2008 from http://www.tnbaptist.org.

Thompson, P. (2006) Make the time to volunteer. *PT: Magazine of Physical Therapy*. December, 42-44.

Tully, J., Viner, R. M., Coen, P. G., Stuart, J. M., Zambon, M., Peckham, C., Booth, C., Klein, M., Zaczmarski, E., & Boohy, R., (2006). Risk and protective factors for meningococcal disease in adolescents: matched cohort study. *British Medical Journal, 332*(7539), 445- 450.

United Nations Development Programme (2006) Retrieved November 3, 2006 from http://hdr.undp.org/statistics/data/country_fact_sheets/cty_fs_HTI.html

Upchurch, S. & Mueller, W. H. (2005). Spiritual influences on ability to engage in self-care activities among older African Americans. *International Journal of Aging and Human Development*. *60*(1), 77-94.

USAID (2006). Retrieved October 31, 2006 from http://usaid.gov/locations/latin_america_caribbean/country/haiti

U.S. Department of State (2007). Travel warning. Retrieved September 25, 2007 from http://travel.state.gov/travel/cis_pa_tw/tw/tw_917.html.

U.S. Religious Landscape Survey (2008). Retrieved December 14, 2008 from http://religions.pewforum.org/affiliations.

Volunteers in Medical Missions (2008). Retrieved November 1, 2008 from http://www.vimm.org

Wells, D. A. (2006). India: A pharmacist's mission. *American Journal of Health –*

System Pharmacy, *63*, 2048-2050.

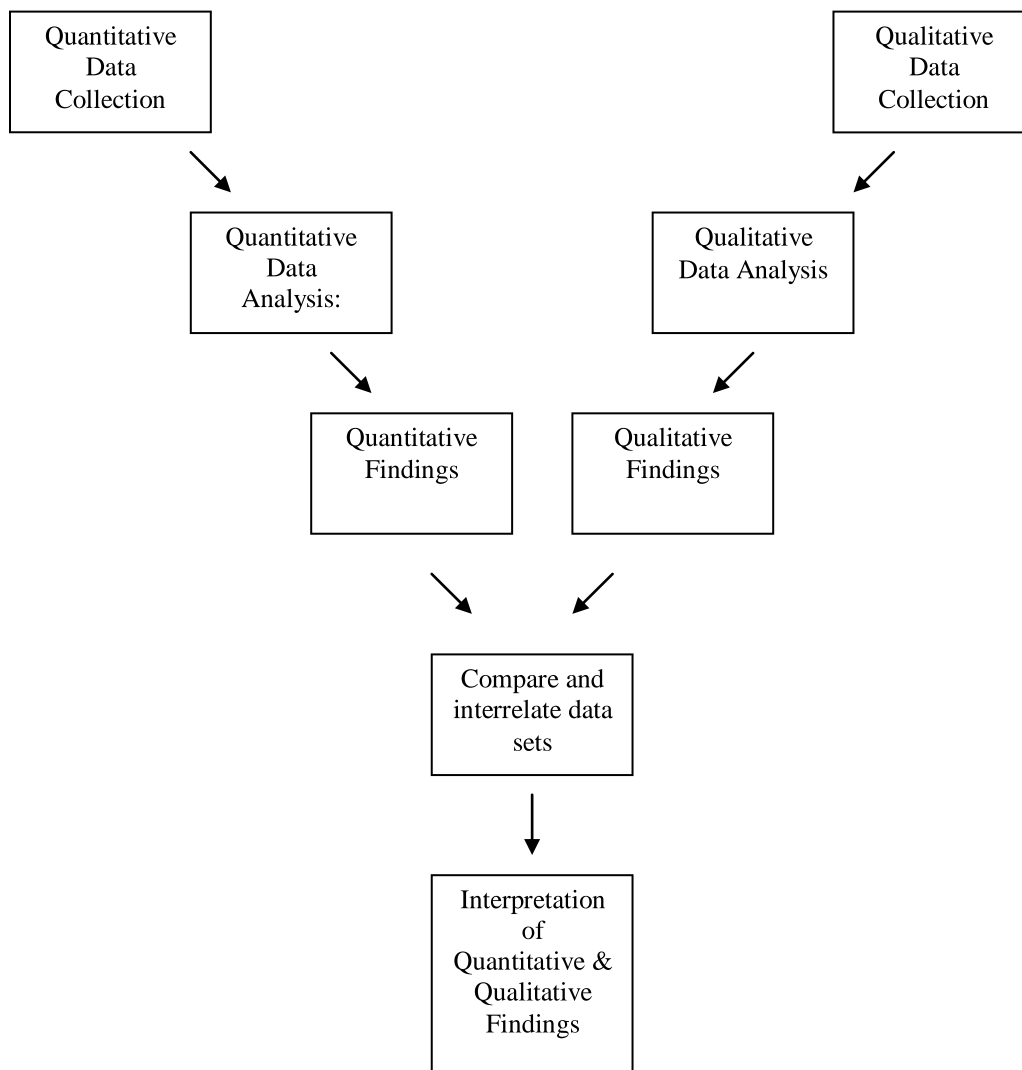
Young, C. A. & Reed, P. G. (1995). Elders' perceptions of the role of group psychotherapy in fostering self-transcendence. *Archives of Psychiatric Nursing*, *9*(5), 338-347.

Zung, W. W. K. (1965). A self-rating depression scale. *Archives of General Psychology*,*12*, 63-70.

Appendixes

Appendix A

Study Design



Appendix B

Call for participants

Have you gone on a church sponsored foreign health care mission (medical mission trip)? If you have you are invited to participate in a research study about mission trips. You will be asked to answer several questions about your mission experience. Your answers may help to make mission experiences better for future participants. The questions can be accessed at www.utk.edu/bethfiske

Please pass this website along to other people you know who have participated in medical missions.

Appendix C

Self-Transcendence Scale

Self-Transcendence Scale

©Pamela Reed, PhD, RN, FAAN 1987

DIRECTIONS: Please indicate the extent to which each item below describes you. There are no right or wrong answers. I am interested in your frank opinion.
As you respond to each item, think of how you see yourself at this time of your life. Circle the number that is the best response for you.

At this time of my life, I see myself as:	Not at all	Very little	Some-what	Very much
1. Having hobbies or interests I can enjoy.	1	2	3	4
2. Accepting myself as I grow older.	1	2	3	4
3. Being involved with other people or my community when possible.	1	2	3	4
4. Adjusting well to my present life situation.	1	2	3	4
5. Adjusting to changes in my physical abilities.	1	2	3	4
6. Sharing my wisdom or experience with others.	1	2	3	4
7. Finding meaning in my past experiences.	1	2	3	4
8. Helping others in some way.	1	2	3	4
9. Having an ongoing interest in learning.	1	2	3	4
10. Able to move beyond some things that once seemed so important.	1	2	3	4
11. Accepting death as a part of life.	1	2	3	4
12. Finding meaning in my spiritual beliefs.	1	2	3	4
13. Letting others help me when I may need it.	1	2	3	4
14. Enjoying my pace of life.	1	2	3	4
15. Dwelling on my past losses.	1	2	3	4

Thank you very much for completing these questions. On the back of this sheet, please write down any additional comments that may help us understand your views.

This instrument is copyrighted by Dr. Reed and is reprinted with her permission.

Appendix D

Spirituality Index of Well-Being

Which statement best describes your feelings and choices?

Strongly Agree 1	Agree 2	Neither Agree nor Disagree 3	Disagree 4	Strongly Disagree 5
1. There is not much I can do to help myself.				
1	2	3	4	5
2. Often, there is no way I can complete what I have started.				
1	2	3	4	5
3. I can't begin to understand my problems.				
1	2	3	4	5
4. I am overwhelmed when I have personal difficulties and problems.				
1	2	3	4	5
5. I don't know how to begin to solve my problems.				
1	2	3	4	5
6. There is not much I can do to make a difference in my life.				
1	2	3	4	5
7. I haven't found my life's purpose yet.				
1	2	3	4	5
8. I don't know who I am, where I came from, or where I am going.				
1	2	3	4	5
9. I have a lack of purpose in my life.				
1	2	3	4	5
10. In this world, I don't know where I fit in.				
1	2	3	4	5
11. I am far from understanding the meaning of life.				
1	2	3	4	5
12. There is a great void in my life at this time.				
1	2	3	4	5

Copyright 2000 The University of Kansas Medical Center.

Appendix E

Demographic Data Collection

1. How many mission trips have you been on? ______
2. When was your last trip? __________
3. List the country or countries where you have been on your mission trips

   ____

4. What is your religious affiliation?

   ☐ Roman Catholic ☐ Southern Baptist ☐ Independent Baptist

   ☐ Presbyterian ☐ United Methodist ☐ Interdenominational

   ☐ Church of God

   ☐ Other - please list _____________

5. What is the religious affiliation of the mission group with which you traveled?

   ☐ Roman Catholic ☐ Southern Baptist ☐ Independent Baptist

   ☐ Presbyterian ☐ United Methodist ☐ Interdenominational

   ☐ Church of God

   ☐ Other - please list _____________

6. Do you have health care experience?

   ☐ YES

   ☐ NO

7. If you have experience in health care:

    a. What is your professional role?

        ☐ RN ☐ LPN ☐ MD ☐ Pharmacist

        ☐ PT/OT ☐ Respiratory therapist

        ☐ Other health care professional- please list _____________

    b. What is your specialty area? ____________

    c. Where do you work?

        ☐ Hospital ☐ Outpatient setting ☐ Home health

        ☐ Other- please list ______________________

8. If you do not have health care experience what is your occupation?

    ____

9. What is your age? ______

10. What is your gender?

    ☐ Male ☐ Female

11. To what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip?

never ☐ very rarely ☐ rarely ☐ occasionally ☐ frequently ☐ very frequently ☐ always

Appendix F

Comparison Studies

Mean levels of self-transcendence in mission participants in this study will be compared with mean STS scores self-transcendence levels in other populations from foundational studies using this instrument. Older versions of the STS scored the instrument as a total score of points on the entire instrument with a possible range from 15-60. Subsequently Reed has revised the scoring of the instrument in that the total number of points is now divided by 15 (the number of items) for scores that can range between 1 and 4. For the purposes of comparison with previous studies, the total number of points on STS items will be compared among all studies. Individual *t*-tests of mean scores in this study and mean scores of each foundational study will be done. The comparison means and standard deviations that will be used to answer research question 2 are in the table below.

Study	Year	Population	n	Mean Age	STS	SD
Reed	1991	Elderly adults	55	88	49.5	7.2
Coward	1991	Women with breast cancer	107	61	50.3	5.4
Coward	1996	Healthy adults	146	46	47.7	6.9
Ellermann & Reed	2001	Middle aged adults	133	43	49.4	6.0
Runquist & Reed	2007	Homeless adults	61	42	46.6	7.5

Appendix G

Countries in which missions were conducted

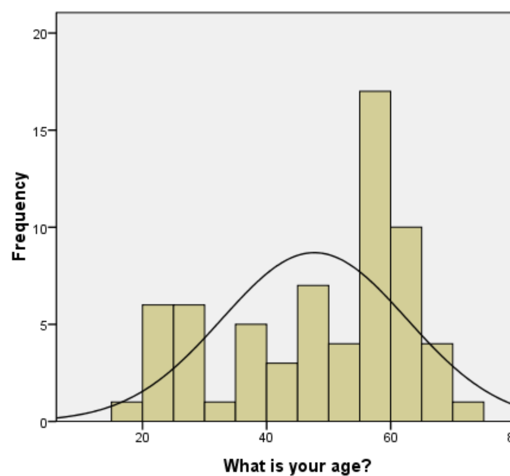
Country	n traveling	Country	n traveling
Belize	7	Kenya	4
Benin	1	Jamaica	2
Bolivia	1	Jordan	1
Brazil	6	Mexico	8
Burkina Faso	1	Mozambique	1
Cambodia	1	Nicaragua	8
Canada	2	Panama	4
Chile	1	Peru	1
China	7	Philippines	3
Coite de Ivory	1	Poland	1
Costa Rico	4	Republic of Congo	1
Dominican Republic	5	Romania	3
El Salvador	3	Russia	1
Ecuador	2	Senegal	1
Ethiopia	1	Spain	3
Gabon	1	South Africa	1
Ghana	4	Suriname	1
Guatemala	8	Thailand	3
Haiti	30	Turkey	1
Honduras	1	Venezuela	1
India	1	Vietnam	1
Indonesia	1		

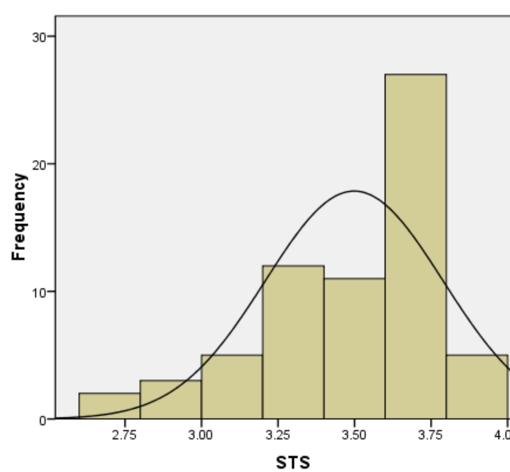
Appendix H

Demographic Data

Measures of Central Tendencies

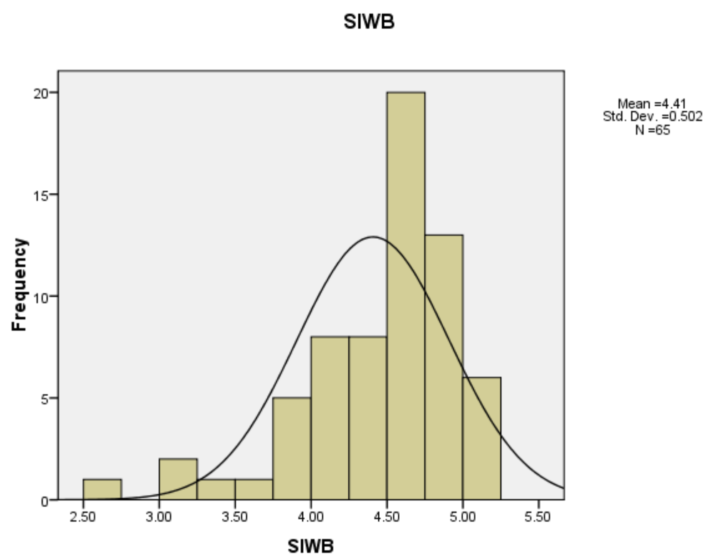
		What is your age?	What is your gender?	STS	SIWB	To what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip?
N	Valid	65	65	65	65	65
	Missing	0	0	0	0	0
	Mean	47.69	1.71	3.4987	4.4077	2.97
	Median	53.00	2.00	3.5330	4.5000	3.00
	Mode	56	2	3.60	4.50	4
	Std. Deviation	14.916	.458	.29034	.50241	1.237
	Variance	222.498	.210	.084	.252	1.530
	Skewness	-.571	-.935	-.818	-1.414	.520
	Std. Error of Skewness	.297	.297	.297	.297	.297
	Kurtosis	-.890	-1.163	.452	2.404	.701
	Std. Error of Kurtosis	.586	.586	.586	.586	.586
	Range	56	1	1.33	2.42	6





STS Reliability Statistics

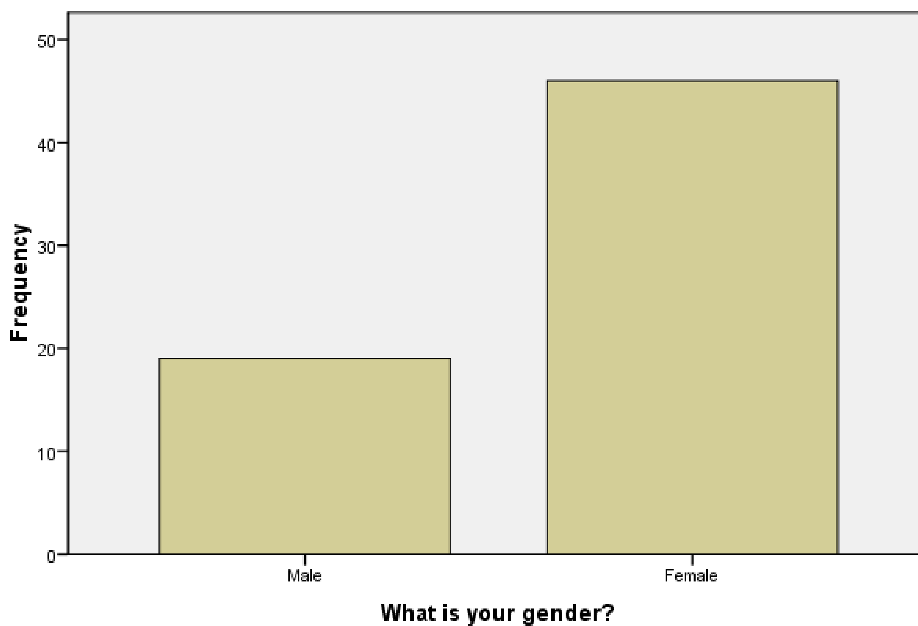
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.840	.846	15



Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.879	.881	12

To what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip?
Mean =2.97
Std. Dev. =1.237
N =65
Frequency
25
20
15
10
5
0
0
2
4
6
8
To what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip?


What is your gender?
Frequency
50
40
30
20
10
0
Male
Female
What is your gender?

Appendix I

STS and Age Correlations

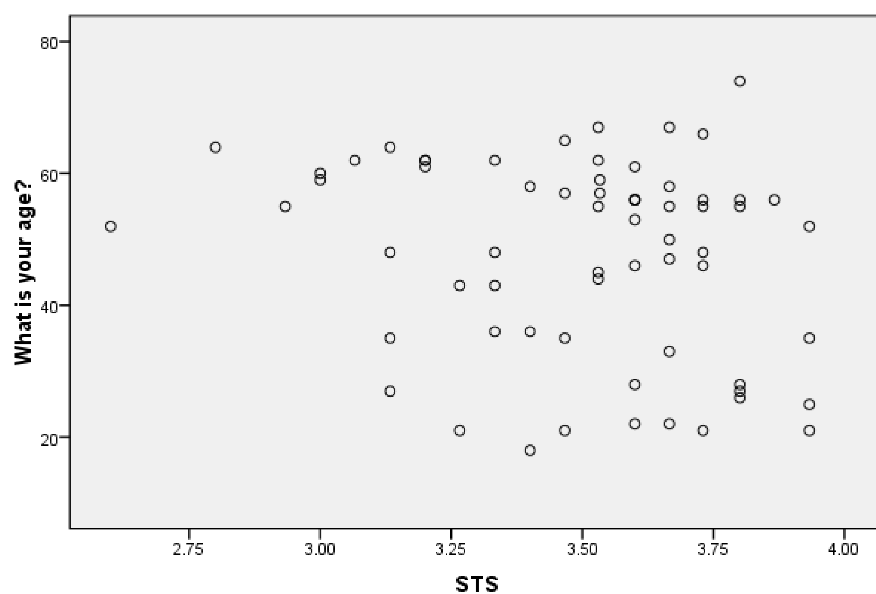
Descriptive Statistics

	Mean	Std. Deviation	N
STS	3.4987	.29034	65
What is your age?	47.69	14.916	65

Correlations

		STS	What is your age?
STS	Pearson Correlation	1.000	-.210
	Sig. (2-tailed)		.093
	N	65.000	65
What is your age?	Pearson Correlation	-.210	1.000
	Sig. (2-tailed)	.093	
	N	65	65.000

STS and Age Correlation



Appendix J

STS and Gender

Group Statistics

	What is your gender?	N	Mean	Std. Deviation	Std. Error Mean
STS	Male	19	3.3885	.27899	.06401
	Female	46	3.5442	.28551	.04210

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
STS	Equal variances assumed	.635	.429	-2.012	63	.048	-.15567	.07736	-.31026	-.00108
	Equal variances not assumed			-2.032	34.368	.050	-.15567	.07661	-.31129	-.00005

Correlations

		STS	What is your gender?
STS	Pearson Correlation	1.000	.246*
	Sig. (2-tailed)		.048
	N	65.000	65
What is your gender?	Pearson Correlation	.246*	1.000
	Sig. (2-tailed)	.048	
	N	65	65.000

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix K

SIWB and Gender

Group Statistics

	What is your gender?	N	Mean	Std. Deviation	Std. Error Mean
SIWB	Male	19	4.3640	.49473	.11350
	Female	46	4.4257	.50985	.07517

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SIWB	Equal variances assumed	.203	.654	-.447	63	.656	-.06169	.13788	-.33721	.21383
	Equal variances not assumed			-.453	34.593	.653	-.06169	.13614	-.33818	.21480

Correlations

		What is your gender?	SIWB
What is your gender?	Pearson Correlation	1.000	.056
	Sig. (2-tailed)		.656
	N	65.000	65
SIWB	Pearson Correlation	.056	1.000
	Sig. (2-tailed)	.656	
	N	65	65.000

Appendix L

STS and SIWB Correlations

Descriptive Statistics

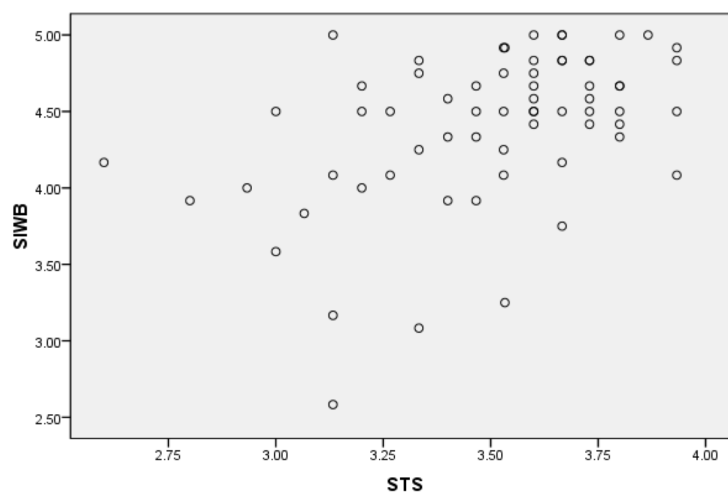
	Mean	Std. Deviation	N
SIWB	4.4077	.50241	65
STS	3.4987	.29034	65

Correlations

		SIWB	STS
SIWB	Pearson Correlation	1.000	.455**
	Sig. (2-tailed)		.000
	N	65.000	65
STS	Pearson Correlation	.455**	1.000
	Sig. (2-tailed)	.000	
	N	65	65.000

**. Correlation is significant at the 0.01 level (2-tailed).

STS and SIWB Correlation



Appendix M

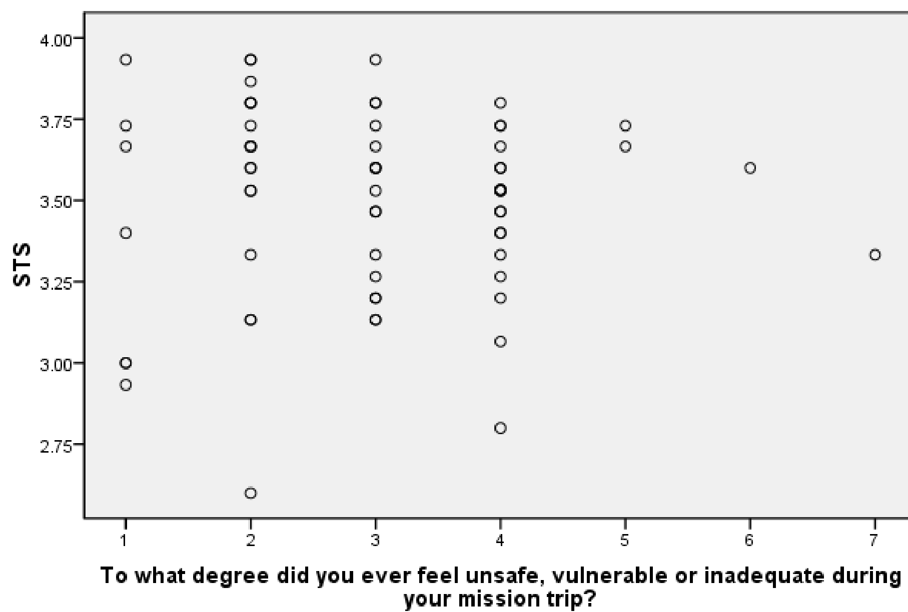
Vulnerability and STS

Descriptive Statistics

	Mean	Std. Deviation	N
STS	3.4987	.29034	65
To what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip?	2.97	1.237	65

Correlations

		STS	To what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip?
STS	Pearson Correlation	1.000	-.003
	Sig. (2-tailed)		.980
	N	65.000	65
To what degree did you ever feel unsafe, vulnerable or inadequate during your mission trip?	Pearson Correlation	-.003	1.000
	Sig. (2-tailed)	.980	
	N	65	65.000



Descriptive Statistics

	Mean	Std. Deviation	N
stsc	.0000	.29034	65
vulnerabilityc	.0000	1.23705	65
vulcsq	1.5067	2.42831	65

Correlations

		stsc	vulnerabilityc	vulcsq
Pearson Correlation	stsc	1.000	-.003	-.065
	vulnerabilityc	-.003	1.000	.318
	vulcsq	-.065	.318	1.000
Sig. (1-tailed)	stsc	.	.490	.303
	vulnerabilityc	.490	.	.005
	vulcsq	.303	.005	.
N	stsc	65	65	65
	vulnerabilityc	65	65	65
	vulcsq	65	65	65

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.003[a]	.000	-.016	.29263	.000	.001	1	63	.980	
2	.068[b]	.005	-.027	.29431	.005	.287	1	62	.594	1.893

a. Predictors:

Constant),vulnerabilityc

b. Predictors: (Constant), vulnerabilityc, vulcsq

c. Dependent Variable: stsc

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	.001	.980[a]
	Residual	5.395	63	.086		
	Total	5.395	64			
2	Regression	.025	2	.012	.144	.866[b]
	Residual	5.370	62	.087		
	Total	5.395	64			

a. Predictors: (Constant), vulnerabilityc

b. Predictors: (Constant), vulnerabilityc, vulcsq

c. Dependent Variable: stsc

Coefficients[a]

Model		Unstandardized Coefficients		Coefficients			95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.075E-7	.036		.000	1.000	-.073	.073					
	vulnerabilityc	.000	.030	-.003	-.025	.980	-.060	.058	-.003	-.003	-.003	1.000	1.000
2	(Constant)	.013	.044		.295	.769	-.075	.100					
	vulnerabilityc	.005	.031	.020	.146	.884	-.058	.067	-.003	.019	.019	.899	1.112
	vulcsq	-.009	.016	-.072	-.535	.594	-.040	.023	-.065	-.068	-.068	.899	1.112

a. Dependent Variable: stsc

Excluded Variables[b]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	vulcsq	-.072[a]	-.535	.594	-.068	.899	1.112	.899

a. Predictors in the Model: (Constant), vulnerabilityc

b. Dependent Variable: stsc

Coefficient Correlations[a]

Model			vulnerabilityc	vulcsq
1	Correlations	vulnerabilityc	1.000	
	Covariances	vulnerabilityc	.001	
2	Correlations	vulnerabilityc	1.000	-.318
		vulcsq	-.318	1.000
	Covariances	vulnerabilityc	.001	.000
		vulcsq	.000	.000

a. Dependent Variable: stsc

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	vulnerabilityc	vulcsq
1	1	1.000	1.000	.50	.50	
	2	1.000	1.000	.50	.50	
2	1	1.595	1.000	.17	.06	.20
	2	1.000	1.263	.14	.71	.00
	3	.405	1.983	.68	.23	.80

a. Dependent Variable: stsc

Casewise Diagnostics[a]

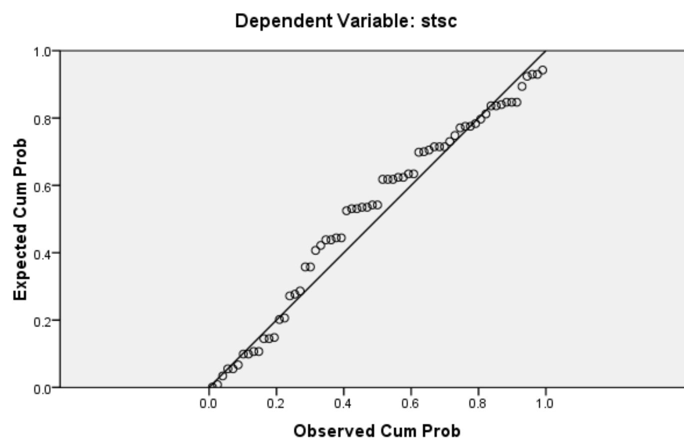
Case Number	Std. Residual	stsc	Predicted Value	Residual
11	-3.055	-.90	.0004	-.89910

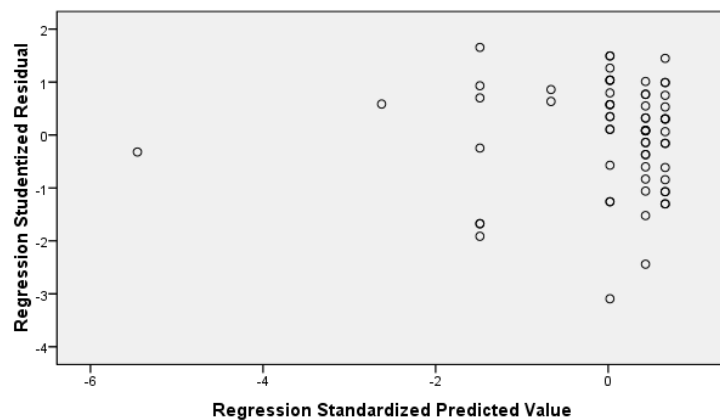
a. Dependent Variable: stsc

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.1076	.0130	.0000	.01972	65
Residual	-.89910	.46363	.00000	.28967	65
Std. Predicted Value	-5.456	.660	.000	1.000	65
Std. Residual	-3.055	1.575	.000	.984	65

a. Dependent Variable: stsc




Scatterplot
Dependent Variable: stsc
Regression Studentized Residual
Regression Standardized Predicted Value
2
1
0
-1
-2
-3
-4
-6
-4
-2
0

Vita

Elizabeth Ann Fiske was awarded a baccalaureate degree in Nursing from West Virginia University in 1979 and Master's degree in Nursing from the University of Tennessee in 1989. She is currently an Assistant Professor of Nursing at Carson-Newman College, Jefferson City, Tennessee.