LIBERTY UNIVERSITY
JOHN W. RAWLINGS SCHOOL OF DIVINITY

RECRUITMENT CONSIDERATIONS FOR CHRISTIAN, DENTAL, SHORT-TERM MISSIONS RELATING TO THE HOLISTIC DEVELOPMENT OF DENTISTS

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

by

Diane K. Meyer

Liberty University, Lynchburg, VA

2020

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Date Defended: April 2, 2020

APPROVED BY:

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Abstract

A painful toothache often becomes unbearable and an unsightly smile can bring distress. Since tooth decay is the most widespread, chronic disease globally, mission trips by dentists can make an incalculable difference when they offer dental treatment to under-resourced people around the world. Dental ministration opens the door to a caring witness of God's love where, as Jesus modeled, the physical touch may promote spiritual healing. Often, the recruitment of dentists for short-term, missions is challenging. This mixed-methods, phenomenological, research study was designed to explore the gap in dental, mission research concerning the recruitment of dentists as it relates to the benefits and the detractors of dental, short-term missions. The study utilized Christian dentists who returned 395 quantitative, research instruments from 15 countries, 44 states, and 43 Christian religious affiliations. Qualitative interviews with 60, short-term, mission-experienced, Christian dentists—who each averaged 55, short-term, dental missions—followed the quantitative study. The theory guiding this research was inspired by Lowe & Lowe (2018) who created a holistic model integrating six developmental aspects of personhood in the spiritual, intellectual, physical, moral, emotional, and social dimensions. Christian dentists revealed a relatively equal distribution in all of the beneficial motivators, highly endorsing participation in dental, short-term missions. The detractor responses were more diverse, with most Christian dentists affirming that their participation in dental, short-term missions would not be adversely affected by detractors.

Keywords: Christian, dental short-term missions, STM, STMs, benefits, detractors, holistic dimensions

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Dedication

This Dissertation is dedicated to my husband,

Colonel (Retired) Robert Meyer, DMD, ABGD, MAGD

There are no words to adequately express my love or my gratitude

for the life journey we have experienced together with Christ.

Your strength and intellect seem unending, your support is unceasing,

and your love is unconditional. You have excelled in every arena in life

and I will forever applaud, admire, and adore you.

Acknowledgments

The completion of this dissertation is a product of the influence and the encouragement of many people who have blessed my life.

First, to Drs. Stephen and Mary Lowe, who, as my dissertation advisors—my Committee Chair and Second Reader, respectively—originally sparked the idea of personal holism in an early lecture in the first class of my doctoral program. In subsequent classes, both Drs. Stephen and Mary inspired me with their spiritual and missional insights and resources. They persevered with me throughout this process and their encouraging guidance has been instrumental in my completion of this research study.

Dr. Bredfeldt, the Liberty University EdD in Christian Leadership Program Director, has created an outstanding, Spirit-infused curriculum along with many highly, encouraging professors that drew me closer to our Lord Jesus Christ through their demonstrations of the many aspects of following God in Christian leadership.

I thank those who have helped with the research process: Mark and Susan Curtis from the Curtis Marketing Group who sent out the research instrument; Dr. Robert Meyer and Dr. Jim Carney from CDS, Dr. Bill Griffin from CMDA, and Dr. Ron and Pam Lamb from WDR who helped with dentist contacts; and all the dentists who participated in the quantitative research instruments and the qualitative interviews. May the Lord bless you for your generous efforts.

Many excellent Christian dentists and dental professionals have worked with my dentist husband and me over the years as we pursued passionate service to other people through dental, short-term missions. All of these dental team members and friends have unselfishly responded to God's call to "Declare His glory among the nations." Too numerous to list, you know who you are, your many contributions have been personally addressed, and we thank you for traveling

with us on dental, short-term missions and for assisting with the Christian Dental Society in countless ways.

Christian leaders in the churches and the schools in which I have worked and volunteered have shown great examples of following Christ through prayer, Bible study, and giving to other people. It is impossible to list those who have influenced me over the decades, but I give thanks.

My family has given impressive support throughout my life. Our parents have been unwavering and consistent Christians who lovingly taught us the spiritual disciplines and the treasure of obtaining knowledge: Rev. B. Weston and Viola Tucker and Dr. Joseph (DMD) and Ora Mae Meyer. I am deeply proud of our three children and their spouses and am thankful for the encouragement they willingly give: Dan and Missy Meyer, Shari and Joey Buttenwieser, and Julie and Jru Swanty. I pray that our eight grandchildren will be inspired to use their God-given gifts to improve our world and to spread the Good News of Jesus Christ: Isabella, Bryce, Aubrey, Brooklyn, Elijah, Shayla, Deekin, and Gia. My extended family brings great joy to my life and I appreciate the Christian impact they provide.

Most importantly, I am grateful to God the Father, Jesus the Son, and God the Holy Spirit for planning, creating, and sustaining this exceptionally, diverse world in which we live, enjoy, and influence others for the glory of God.

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List of Abbreviations

American Dental Association (ADA)

Christian Dental Society (CDS)

Christian Leadership Education Doctorate (CLED)

Christian Medical and Dental Associations (CMDA)

Indigenous People's Technological and Educational Center (I-TEC)

Institutional Review Board (IRB)

New International Version Translation of the Bible (NIV)

Short-Term Mission(s) STM(s)

Volunteer Functions Inventory (VFI)

World Dental Relief (WDR)

World Health Organization (WHO)

CHAPTER ONE: RESEARCH CONCERN

Introduction

A painful toothache often becomes unbearable and an unsightly smile can bring distress. George Bernard Shaw, a playwright and activist, declared: “To the person with a toothache, even if the world is tottering, there is nothing more important than a visit to the dentist” and Miguel de Cervantes, author of *Don Quixote* (1605), pronounced: “Every tooth in a man’s head is more valuable than a diamond” (as cited by Beaglehole et al, 2009, pp. 14, 22).

In the 1870s, the first Christian missionary to Taiwan, Canadian theologian George Mackay, labored to find a connection to the local people who labeled him “the black-bearded barbarian” and ran from him in fear. After fashioning rudimentary instruments to extract their painful teeth, dentistry became pivotal in Mackay’s versatile, missionary work:

> With forceps in one hand and the Bible in the other, Mackay found himself doubly equipped. Every second person seemed to be suffering from toothache[s], and when the pain was relieved by the missionary, the patient was in a state of mind to receive his teaching kindly. (Keith, 1885, pp. 49-50)

Dentistry becomes a powerful door-opener anywhere as the universal need for dentistry persists to this day. Peres et al. (2019) explain that in adults, orofacial pain is common and is the most consistent contributor to decreased quality of life globally (p. 254) and Watt et al. (2019) agree that about 3.5 billion people around the world are affected by oral diseases that are preventable (p. 209). Kassebaum et al. (2017) claim that oral health has not improved in the last 25 years, and that “oral conditions remain a major public health challenge” (p. 380). Peres et al. (2019) describe the scope of the global epidemic of oral disease as “a neglected issue, rarely seen as a priority in health policy” (p. 250). Another study reported that untreated tooth decay is the most widespread, chronic disease worldwide and the most prevalent condition of 291 major diseases, with periodontal disease as the sixth most prevalent; tooth decay affects an estimated

60-90% of schoolchildren and nearly 100% of adults worldwide (as cited in Benzian & Williams, 2015, p. 16). Watt et al. (2019) agree that oral health is inextricably linked to other chronic diseases (p. 209; Lee et al. 2012).

Although there are shortages of dentists in advanced countries, especially in rural areas, there are disproportionately few dentists in the developing world. Watt et al. (2019) show that "with other competing demands on scarce resources, investment in oral health is very restricted, making dentistry an unavailable and unaffordable luxury reserved for the wealthy" (p. 261). O'Callaghan (2012) noted that dentist population ratios show a discrepancy between countries:

> Overall in the U. S., there is approximately one dentist for every 2,000 residents. However, in many parts of the world . . . there is little to no access to a dentist. For example, there is one dentist per 150,000 people in Africa and one dentist per 250,000 people in rural India. (p. 348; Trota, 2009)

Since most dentists who live in industrial and developed countries do not want to relocate to developing countries, short-term missions (STMs) can be utilized to help relieve the overwhelming, global need for dentistry. Dental STMs—comprised of volunteers who go for several days or weeks—provide an invaluable service not only in dental treatment for those who are hurting, but also for dental training of indigenous people, oral hygiene preventive practices, and in the education and the recruitment of dentists and dental students for STMs. From the Christian perspective, the dental need can be addressed as STM dentists alleviate dental distress and boost holistic healing which becomes a premier introduction to the biblical message. Forbes & Topazian (2000) emphasize that:

> As Christian dentists, we are obligated not only to make disciples but to use our special skills of healing for the kingdom . . . many missionaries will attest to the fact that dentistry, in some places . . . is the biggest health need of all . . . compassionate dental care prepares patients for a sympathetic hearing of the Gospel. (pp. 71-73)

However, the recruitment of Christian dentists for STMs is exceedingly difficult. Lasker (2016) agrees that there are concerns about volunteer recruitment and commitment (p. 58) and Sykes (2014) believes that knowing the motivations of prospective volunteers allows the tailoring of recruitment messages best able to attract them (p. 113; Clary, et al. 1998). Educating dental professionals to understand the Gospel-sharing opportunities and the value of serving others with their gift of dentistry is powerful.

This research explores the benefits and the detractors of dental STMs that affect the holistic growth of dentists as they volunteer to bless other people. The results will be used in the recruitment of Christian dentists for dental STMs. Chapter One will introduce the background to the research problem in the areas of theology, history, sociology, and theory. The gap in the existing literature is identified, followed by the study's research questions, the research assumptions and delimitations, definitions of terminology, the significance of the study, and a methodological summary.

Background to the Problem

Theological Aspects of the Problem

Old Testament prophets implemented STMs declaring God's word to the nations and Jesus' short ministry incorporated physical healing and therapeutic touch with anticipation of subsequent spiritual and holistic development in the individuals influenced by God's Son. New Testament churches commonly originated from STM teams, and, today, Christians in healthcare imitate Jesus' example of employing physical healing. Essentially all Christian, STM resources tout the spiritual growth and the evangelistic impact of STMs in the lives of participants and recipients. Dental STMs also give credibility to local ministries as dental care promotes outreach, may be used to plant churches, and bring attention to God's love through his Body, the Church.

Lowe notes that "spiritual formation has to do with whole-person transformation into the fullness of Christ . . . it's a combination of this vertical connection that we have to Christ and the Spirit and the horizontal connection we have to other members of the body of Christ" (as cited by Galli, 2019, p. 60). Hoekema (1986) also touts this transverse rendering of Christianity where the relationship to God finds expression in each people's relationships with their neighbors (pp. 80-81). Adding the holistic dimension to dental STMs would follow Lowe's recommendation that spiritual formation involves "submitting yourself to the way in which God has designed the world to function—socially, physically, spiritually, in every way . . . through interconnections, through interactions, through the sharing of resources" (as cited in Galli, 2019, pp. 60-61). Anderson (1991) agrees that the concept of *shalom* brings the structure of wholeness and harmony which exists as the result of the divine Word (p. 164).

Historical Aspects of the Problem

The first noted medical missionary in the modern period was Dr. John Thomas, who preceded William Carey to India (Tucker, 1983, p. 366). The modern-day, mission movement began in the late 1700s with the written challenge to Christians by William Carey (1792). David Livingstone in 1840 began his missionary career with a background in both theology and medicine and Hudson Taylor, in the mid-1800s, found "his medical equipment of the greatest value in opening the way to people's hearts" (Taylor, 1987, p. 61). By 1865, mission strategies, including medicine, became vital to effective outreach and Tucker (1983) states:

> From the beginning of the modern missionary period, medical work was a significant aspect of world evangelism, but not until the late nineteenth and early twentieth centuries did medical missions become a distinct specialty in its own right. By 1925 more than two thousand doctors and nurses from America and Europe were serving throughout the world, and mission-run hospital and clinics were increasing rapidly. The ministry of missionary medicine has been a monumental humanitarian effort the world over. (p. 366)

Prominent medical missionaries in history include John Scudder as the first American missionary to specialize in medicine in India in 1819, along with family members who later followed his example. Clara Swain, the first woman missionary doctor from America, arrived in India in 1870 and opened a hospital within four years. The first missionary nurse was Miss E.M. McKechnie, who arrived in Shanghai in 1884 and subsequently founded clinics there. Dr. Albert Schweitzer began his medical career in West Africa in 1913. While most medical missionaries spent their lives in tropical climates fighting against the ravages of fever, leprosy, and other tropical afflictions, Wilfred Grenfell had an effective medical ministry along the frozen coastline of Labrador. Carl Becker was one of Africa's most beloved doctors who began his medical studies in 1916. Tucker (1983) lauded medical missions that often "paved the way for evangelizing tribes that were otherwise very difficult to reach" (p. 373).

Sister Annie Bernsten served as a missionary nurse in China from 1938-1951 and Dr. Helen Roseveare arrived in the Congo in 1953, where rebel soldiers captured and abused her in 1964. She used her appalling experiences to comfort and to witness about God's grace to other, unfortunate people. Roseveare was touted for administering

> improvised care without drugs or proper instruments, depending on God for healing. And when she had opportunities, she told her patients about Christ and His provision for spiritual healing. Medicine was for her a way to introduce an unreached audience to Christ . . . Helen's dedication to the medical work God had given her resulted in a larger hospital and training center. (Woodbridge, 1994, pp. 224-226)

Recognition for dental, missionary services is usually lumped with other medical professionals and Tucker admits that "Medical doctors have generally received the most acclaim for their service in medical missions, but dentists, nurses, and other medical personnel have also made noteworthy contributions to the cause" (p. 366). The American Dental Association (ADA) agreed to the importance and effectiveness of STMs in all voluntary programs, particularly in

disaster situations (Dental profession, 1976, p. 4). Howell (2012) noted that in STMs, dental or medical missions seem favored (p. 38).

Colleges and other adult workers focused on STMS in the 1980s. Tucker (1983) documented that in 1982, some ten thousand students (many influenced by Inter-Varsity's triennial Urbana Conference) spent their summer vacation in STM work and also a number of nonprofessional missionaries (tentmakers) became involved (p. 397). There continues to be an increase in dentists globally who are self-supporting missionaries by utilizing their dental skills.

Livermore (2006) observed that churches across America had begun emphasizing STMs as an unprecedented opportunity created by the advent of long-haul travel to go and minister and they saw STMs morph greatly (p. 7). Wuthnow (2009) believed that health volunteering cannot be studied properly without a focus on faith-based missions that dominate the field and continue to grow and devote billions of U.S. dollars to that purpose (as cited in Lasker, 2016, p. 30). Anthropologists, Priest & Howell (2013) estimate that the number of people who go on STMs annually is upwards of two million North Americans, although not all travel for health-related mission trips (p. 125). Globally, charitable dentistry serves under-resourced people through this modern thrust of STMs.

Sociological Aspects of the Problem

Peres et al. (2019) are deeply concerned about global dental needs, observing that despite being largely preventable, oral diseases are highly prevalent throughout humanity's life course and have substantial negative effects on individuals, communities, and the wider society (p. 249). Oral diseases are a world, public health problem. Peer (2018) from World Vision has attested that, since 1990, a quarter of the world has risen out of extreme poverty—now, less than 10 percent of the world lives in extreme poverty (p. 2; Whilden, 1989). When families gradually

improve their incomes, children's health and well-being improve. However, most dentists see that cavities increase as civilization develops. Stoy, a dental lecturer in 1950, explained the growth of dental needs best:

> Dental disease and civilization go hand in hand . . . one of the chief results of civilization is a change of diet . . . the relationship between the increased intake of refined carbohydrates and caries is irrefutable . . . tissues to remain healthy must be exercised. Most jaws and teeth were developed to tackle hard, tough foods . . . the element fluorine also plays a part in preventive measures. (pp. 147, 151, 156-157)

Rehan (2018) documents current dental health as one of the most critically under-served areas of health care in many countries, where dental volunteerism is vital to global health since trained dentists are few and many people cannot afford visits (p. 13; Weng et al., 2015; Wooley, 2016). Listl et al. (2015) confirmed that the global, economic burden of dental diseases amounted to $442 billion in 2010 (p. 1360).

Holistic, dental issues are observed by Morgan, since "Saving teeth is important to patients . . . a lost tooth has serious emotional, social, and physical consequences . . . Our teams are honored to be there to relieve pain, save teeth, save smiles, and improve lives" (as cited in Burger, 2017, p. 18). Kane (2017) agrees that the benefits of good oral health are well studied and include economic, social, psychological, and physical health (p. 31) and Asa (2011) shows the depth of dental concern when he warns that some of the dental cases they saw could result in life-threatening infections if untreated (p. 29). Glick et al. (2012) insist that oral health is an essential component of good health and a fundamental human right (p. 278) and Marrelli et al. (2019) also declare that no matter where a person lives, smiling is important for all, and must be a mission for all the operators in the dental field (p. 587). Shinn notes the dental impact of people's appearance: "The best jobs in developing countries are service industry jobs. It doesn't

matter how qualified you are, you won't get the job if you don't have a pleasing smile . . . dentists can change lives" (as cited in Crozier, 2013, p. 17).

Dentistry is uniquely conducive to portable clinics in the U.S. or with STMs in the developing world as an answer to unavailable or unaffordable dentistry. Dental difficulties can often be remedied in a matter of minutes with no need for follow-up or medication. Dental supplies and instruments can be easily and inexpensively transported and portable, state-of-the-art, dental clinics set up quickly and comfortably in any location. Most dentists do not realize that they can take everything needed for a portable, quality dental clinic in four, 50-pound, luggage pieces—all while profiting the professional's own spiritual and professional life with holistic growth, the significance of evangelistic outreach, and adventurous, cultural exchange (Meyer & Meyer, 2014, p. 10; Piper, 2005). Hatmaker (2011) reiterates an anonymous quote that inspires Christian dentists to reach out to the under-served, saying "When I ask God why He allows poverty, suffering, and injustice when He could do something about it, I think He would ask me the same question" (p. 34).

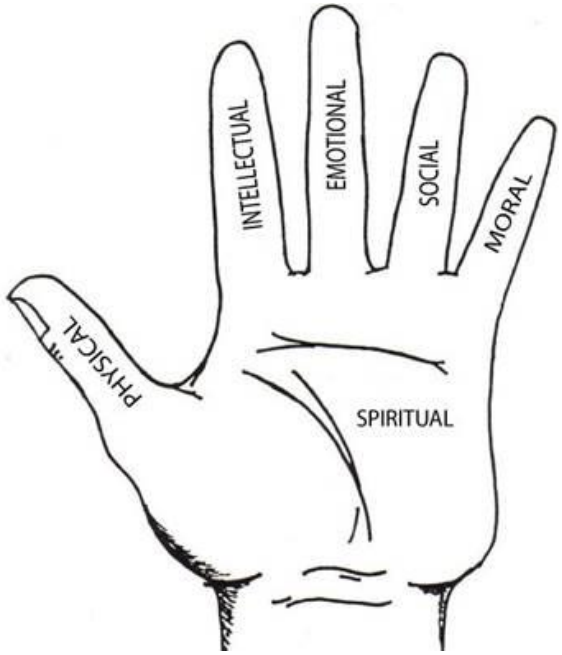
Theoretical Aspects of the Problem

The theoretical framework guiding this study involves a refinement of developmental psychology theory that was cultivated by Lowe & Lowe (2018, p. 18, Appendix H). They have created a depiction of the human hand as an ingenious illustration of the holistic person as it represents the way in which the components of an individual work together to form the whole; the digits of the hand represent five areas of human development: intellectual, physical, moral, emotional, and social, while the palm represents the spiritual facet of a person's formation which integrally affects each of the five fingers. Lowe & Lowe (2018) further expound:

> It would be illogical to think of a normally functioning, healthy hand without fingers. Similarly, we would consider a hand with no palm and only digits abnormal. Each of

these components of the hand acts in an interrelated way. The order of the way we are created suggests an interactive dynamic, rather than each aspect acting independently of the others. We might say that each one of us contains a perfect illustration of whole person ecology in our hand. (p. 132)

Figure 1: A Depiction of the Six Holistic and Developmental Dimensions



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This researcher placed the six dimensions in the order that Luke, the gospel writer, wrote about Jesus in Luke 2:52 (with the six developmental components in parentheses): "And Jesus grew in wisdom (spiritual, intellectual) and stature (physical), and in favor with God (moral) and man (emotional, social)." Lowe & Lowe (2018) state that Jesus was a perfect example of whole-person development (p. 132) and they emphasize that Christians must always insist on viewing people from a holistic perspective rather than compartmentalized; the biblical view is that of whole persons comprised of various aspects which together constitute the whole as believers desire to achieve "the measure of the stature which belongs to the fullness of Christ: Eph. 4:13, 15" (p. 18).

Developmental constructs by Piaget (1973), Kohlberg (1984), Erikson (1980), Sampson (2011), and other experts will be addressed in Chapter Two as they provide formative frameworks that bring historical and developmental perspectives.

Statement of the Problem

Since no academic research study involving quantitative and qualitative data has been published on the recruitment of dentists for STMs, this dissertation addresses the holistic growth occurring with dentists' STM involvement. The benefits of dental STMs may then be capitalized upon and the detractive issues may be addressed.

A gap concerning dental STMs exists in the current literature. This researcher discovered no systematic reviews of the literature on dental STMs. When Caldron et al. (2015) wrote his review of medical STM articles from 1947-2014 (and did not include dental STM reviews), he stated that "their consequences are sparse" (p. 1). In a second study on medical STMs that included dental articles, Martiniuk (2012) assessed

> 230 relevant articles . . . The majority of articles were descriptive and lacked contextual or theoretical analysis. Overall, this review revealed that relatively few articles are published on the topic of STMs; in some cases, fewer than 10 per year . . . oral/dental health (6%). (p. 3; Malay, 2017, p. 220)

Therefore, only 6% of medical, STM journal articles even mentioned dental health topics, Often, dental articles found in the literature are written by individual dentists who factually specify why a dental STM appealed to them by identifying the personal rewards and the challenges they, the patients, the team, and the support group experienced during the STM. These infrequent testimonials (possibly a handful annually) have no research-based content. Therefore, there is a significant gap in the literature concerning dental STMs.

In December 2019, just a few weeks before this research study was completed, Woodmansey & Serio published a three-page, journal article stating, "no study of US dentists'

international dental volunteer activities has been published to date . . . this study was designed to quantify that participation and explore the personal motivations of dentists who volunteer internationally" (p. 55). Woodmansey & Serio (2019) dispersed a 12-question survey to U. S. dentists which suggested almost unanimous support for STMs from those who responded and validated several of the positive, holistic benefits of volunteering (without mentioning detractors) that have been explored in this researcher's study.

This researcher employed an explanatory, sequential, mixed-methods design that utilized 395 quantitative, research instruments and 60 qualitative, phenomenological interviews documenting the experiences and the perceptions of Christian, STM-experienced dentists. After a discussion of the benefits and the detractors of STMs, the Christian dentists gave suggestions for the recruitment of dentists who participate in dental STMs that serve people in need.

Purpose Statement

The purpose of this mixed-methods, phenomenological research was to analyze quantitative and qualitative data to identify and to understand the benefits and the detractors of dental, short-term missions relating to Christian dentists' holistic development involving the six dimensions of spiritual, intellectual, physical, moral, emotional and social integration; the results will provide recruitment considerations for dentists who participate in missions to serve under-resourced people.

Research Questions

Creswell (2017) states that a strong, mixed-methods study contains "a quantitative question . . . a qualitative question, and a mixed-methods question: This configuration is necessary because mixed-methods [relies] . . . on both forms of inquiry" (pp. 148, 151). Therefore, the following three questions guided this study:

RQ1. Utilizing a quantitative research instrument based on the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions), what benefits or detractors did Christian dentists identify as contributory to their decision to participate or not to participate in dental, short-term missions that serve under-resourced people?

RQ2. Utilizing qualitative, in-depth interviews with Christian, highly experienced, short-term, mission dentists based on the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions), what did these Christian, dentist leaders identify and describe as the predominate benefits or detractors of dental, short-term missions and their recommendations for the recruitment of dentists to serve on these missions?

RQ3. Utilizing quantitative and qualitative data, how may Christian organizations apply the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions) to recruit Christian dentists for dental, short-term missions that serve under-resourced people?

Assumptions and Delimitations of the Study

Research Assumptions

1. It is assumed that the quantitative, research instrument had direct, measurable, valid, and reliable results from the large sample of participants that yielded a 95% confidence level with a confidence interval of five.
2. The qualitative research assumes the advantages of discovering “lived experiences” but carries an increased potential for direct researcher influence. Any research holds a measure of bias for design, analysis, and interpretations by the researcher.

3. The researcher assumes that dental STMs are worthwhile. There are some critiques in the literature concerning the value of traveling for faith-based, *medical* clinics as most countries' governments provide general health care and medical clinics are regionally available in most countries. *Dental* clinics are rare in developing countries and the shortage of dental professionals is currently in a crisis state which adds to the necessity and urgency of STM, dental care provision.
4. This researcher assumes that developmental psychology explains important concepts leading to personal holism. The premise of this research is that the benefits and the detractors of dental STMs may contribute to integrated, holistic growth for dentists and that the six areas of developmental psychology are relevant to STM recruitment.
5. It is assumed that different volunteers may have different reasons for volunteering (Stukas et al., 2009, p. 7).
6. Since this dissertation has a Christian focus, it is assumed that evangelization is an essential priority to Christian, dental STMs, whereas humanitarian trips, although admirable, do not have the faith component. It is assumed that Christian dentists desire to serve Jesus Christ and other people with the skills God has given—in this case, dentistry skills (Lasker, 2016, p. 19).

Delimitations of the Research Design

Since the targeted audience of this dissertation is Christian dentists in developed countries, this mixed-methods study was delimited to Christian dentists found at U.S. dental conferences or involved with global, Christian, mission organizations. Therefore, most dentists are products of educational institutions and Christian churches associated with industrialized and developed countries. Occasionally, Christian dentists from other countries visited the dental

conferences where this researcher collected dentist contact information and their viewpoints were welcomed. Demographic information is included in Table 2, Table 3, and Figure 2.

Perspectives and world-view differences of non-Christian dentists were observed through the research instruments that were returned by dentists without a Christian affiliation. Many of the non-Christian dentists had significantly divergent responses from those expressed by Christian dentists and it would undoubtedly skew the Christian results that are sought with this study. Therefore, this research is delimited to Christian dentists.

The qualitative, phenomenological interviews were delimited to 60, STM-experienced, Christian dentists who returned the quantitative, research instruments. This sizable group from varied demographics have each served on an average of 55 STMs and provide significant expertise in this research study.

Definition of Terms

The following terms and meanings will provide clarification of their usage in the study.

1. *American Dental Association (ADA)*: An organization established in 1859, currently with almost 200,000 dentist members, who promote oral health to the public while representing the dental profession.

2. *Christian dentist*: A licensed dentist of either gender or diverse nationalities who is involved with a Christ-centered church of any Christian denomination.

3. *Christian Dental Society (CDS)*: A 54-year-old, 501(c)3 non-profit organization, with over 600 members, who exists to equip, encourage and educate dental professionals and dental and hygiene students for dental STMs.

4. *Christian Medical and Dental Associations (CMDA)*: An organization made up of the Christian Medical Association (CMA) and the Christian Dental Association (CDA). CMDA is an 87-year-old, 501(c)3 non-profit organization that provides resources, networking opportunities, education, and a public voice for their 19,000-member group of Christian health-care professionals and students (1500 members are dentists).

5. *Christian short-term mission[s] (STM[s])*: A trip to serve other people with the focus of reaching out with Christian evangelical motives as a priority.

6. *Dental team*: A group of people that go on a dental mission that may include dentists, hygienists, assistants, lab personnel, sterilization providers, administration personnel, family members, pastors, and national helpers.

7. *Developed nation/industrialized nation*. These countries have less agriculture and more industry and service making up their gross domestic product. A *developed nation* is what most people mean to say today when they use the obsolete phrase *first world*.

8. *Developing nation*: These are usually agricultural nations with little industry making up their gross domestic product. This is what most people mean to say today when they use the obsolete phrase *third world*.

9. *Global Church*: A phrase that includes every Christian on Earth, regardless of nationality, race, or gender.

10. *Holistic*: Characterized by the treatment of the whole person in the spiritual, intellectual, physical, moral, emotional, and social facets of a person or community.

11. *Humanitarian short-term mission[s] (STM[s])*: A short-term mission that, without a faith-based component, is concerned with improving the welfare and happiness of people.

12. *Indigenous people*: An anthropological term describing people who originate from or have consistently lived in a certain region. They have a distinct culture that may be slightly or radically different from the mainstream culture.

13. *Indigenous People's Technology and Education Center (I-TEC)*: A Christian missionary ministry originated by Steve Saint that teaches national Christians the tools they need to provide for themselves within their cultural settings (including dentistry, health care, eyesight problems, film/story production, aviation, and more.)

14. *Liberty University's Doctor of Education in Christian Leadership (CLED) Program*: A fully online, leadership praxis degree, offering the theory and the practice of Christian leadership, applied theology, and integration of a Christian worldview with study in the fields of leadership, education, and the social sciences.

15. *Majority church*: A phrase that includes all Christian living in developing countries and excludes Christian living in developed countries. It is referred to as the Majority Church because the majority of the world's population lives in developing nations.

16. *mPower Approach*: A Christian missionary organization that trains, equips, and empowers indigenous believers to serve their communities in self-sustaining ways (including dentistry, medical, vision, medical, sewing, leadership, and more.)

17. *Nationals*: Citizens or members of a society are addressed with this appropriate term.

18. *Portable dental equipment*: The items needed for a portable, dental STM, which include a dental operating unit, a patient's and dentist's chair, a light (headlamp), sterilization, instruments, and supplies capable of being transported in regular, 50-pound, airline checked bags. These items must be light and consolidated so a dentist can easily set up a dental clinic in non-permanent healthcare environments.

19. *Portable dentistry*: Providing dental care using portable dental equipment to provide quality, safe, and comfortable dental care in non-permanent, often austere settings.

20. *Short-term mission(s)=(STM, STMs)*: A journey, typically lasting from a few days to several weeks, that allows people to serve nationals who are disadvantaged or under-resourced in areas of need (in this case, dental and spiritual need).

21. *Volunteer*: A person who assists people based on free will, without monetary reward, usually occurring under the auspices of a non-profit, educational, or religious cause.

22. *World Dental Relief, Inc. (WDR)*: A charitable, non-profit, relief organization, founded by Dr. R. Lamb in 1976, with a state and federally licensed warehouse to receive and distribute dental supplies/equipment to global, dental health-care missions.

Significance of the Study

Because there is an almost nonexistent body of literature on dental STMs other than testimonials and descriptions of specific STMs, significant information was collected and will be disseminated with this research study. Fulton (2018) states that oral disease is probably the most overlooked medical infection in the world today: "In almost every report one reads about an interprofessional collaboration among health care workers . . . the dental profession is omitted" (p. 13). This research informs dentists who serve on Christian, dental STMs of the current, global, dental need and consolidates the benefits and the detractors which are related to dentists' holistic personhood and developmental growth. Recruitment considerations are identified to increase dentist participation in worldwide, dental STMs.

Most importantly, Christian STM evangelical opportunities may be fulfilled as dental teams are recruited to serve and to provide spiritual hope through Christian witnessing and dental healing in Christ's name. Forbes & Topazian (2000) believe that faith-based, charitable, dental

assistance, whether at home or abroad, will provide an enduring and abundant spiritual, professional, and personal life (p. 81). Therefore, dental STMs become a winning, cross-cultural, life-changing, and hope-giving, spiritual experience for all involved as oral health needs are met and holistic growth and integration are experienced by STM dentists.

Summary of the Design

A mixed-methods, phenomenological approach is utilized in this study and Creswell (2014) notes: "The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone" (p. 4). Therefore, pulling together the benefit, detractor, and developmental psychology aspects of dental STMs, a combination of quantitative and qualitative aspects was utilized in an "explanatory, sequential design . . . collecting survey data in the first phase . . . following up with qualitative interviews to help explain the survey responses" (Creswell, 2014 p. 224). This research format undoubtedly brings a more complete research picture that can affect recruitment considerations for dental STMs.

The quantitative, anonymous, research instrument delineated what benefits and detractors to STMs were chosen or not chosen by Christian dentists, who were asked to rate statements concerning the six areas of developmental and psychological holism following the theoretical framework created by Lowe & Lowe (2018, p. 18). There were blank lines provided for the participants to submit other thoughts. The data was analyzed and illustrated using statistical Means to calculate average responses, Sample Standard Deviations to measure variations, and Standard Error of the Mean at the 90% confidence level. Graphic visualizations of the outcomes in each of the six, holistic areas and the 36 statements are shown in Tables 4 and 5, and Figures 3 and 4.

The qualitative portion of the study explored and discovered the individual, holistic, developmental growth that occurs for the Christian, STM-experienced dentist who participates in a dental STM trip in the six areas of the spiritual, intellectual, physical, moral, emotional, and social dimensions. The interviews also revealed recommendations by STM-experienced dentists for the recruitment of dentists for dental STMs. This researcher carefully followed the recommendations by Roberts (2010) on the presentation of qualitative data and coding in narrative form: "Information is organized into themes, categories, or patterns . . . Qualitative analysis is a creative process and requires thoughtful judgments about what is significant . . . rich data" (p. 174). The study is triangulated by the informed use of the literature search, the quantitative research instruments, and the qualitative interviews,

Chapter One documents the immense need for dental personnel to assist under-resourced and disadvantaged people with dentistry in the U.S. and around the world. Dentistry opens the door to show Christian hope and God's love to others by portraying a Christian worldview of service. Dental literature has little documentation on how to recruit dentists for STMs to aid in the overwhelming dental need and this research was the first to study the holistic, developmentally-integrated benefit and detractor components experienced by STM-experienced dentists who volunteer for dental STMs to under-served countries.

The skill sets of dental professionals perform well in the world of Christian humanitarian service by opening doors to offer people hope and exposure to the Gospel message. Via & Via (2012) declare that STMs play a crucial role in how the gospel is given to a world in need of hope (p. 6). Meyer & Eikenberg (2002) believe that "When dentists provide care to relieve physical suffering, the goodwill often opens doors and builds bridges for political, social, and religious opportunities" (p. 416).

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter examines the published literature concerning dental service trips, general STMs, and volunteer research. Both biblical and theological examples show STM assignments from God. Christ's example of caring (Matt. 9:35) is followed when STM dentists provide extractions and restorations for painful or broken teeth as a door opener for sharing God's love and the Gospel of Christ. Knight (2006) affirms that the essence of Christian love and the Christlike character is service to others (p. 215).

The theory that guided this review involves a developmental psychology model from Lowe & Lowe (2018) which includes the six dimensions of personhood that are cohesively integrated and gained through the experiences and the events of life, including the life-altering impact of STMs (p. 18; Richards & Bredfeldt, 1998; Sampson, 2011; Wilhoit, 1991). Lowe & Lowe (2010) describe holistic integration further:

> Aspects of this holistic development include biological, psychological, behavioral, and mental components that interact within the personal ecosystem to bring about whole person development . . . Too often we focus exclusively on the spiritual aspect of Christian development to the neglect and exclusion of other aspects of the whole person and consequently give a distorted picture of development and the created person's totality. (pp. 283-284; Howard, 2006)

Biblical texts, Christian theology concepts, developmental psychology frameworks, and theoretical writers are acknowledged as the backdrop for this research. After the literature review was accomplished, the researcher placed the findings into three benefit and three detractor categories for each of the six holistic dimensions that apply to the lives of the STM dentists who serve under-resourced and spiritually-distressed people globally.

Biblical Framework for the Study

Old Testament Examples of Short-Term Missions

God often dispatched Old Testament individuals for specific STM purposes, including these in the Pentateuch: heavenly visitors to Abraham (Gen. 18), Moses to the Egyptian royal court (Ex. 3-12), and Jewish spies and their fact-finding STM (Num. 13-14). Biblical individuals ministered on STMs: Samuel's varied STMs (I Sam. 7:16), Elijah and the widow of Zarephath (I Kings 17), Elisha and the Shunammite family on his frequent sojourns (II Kings 4), the Jewish slave girl at Naaman's house in Syria (II Kings 5), Nehemiah's wall construction STM (Nehemiah 2-12), and Jonah's assignment to Nineveh (Jonah 1:1).

Laniak (2006) cautions that God's followers who do not assist the hurting are not following God's decree: "Ezekiel's metaphor of bad shepherds warned that 'You have not strengthened the weak or healed the sick or bound up the injured' (Ezek. 34:4) . . . *True love* must be expressed by the *comprehensive care* of Jesus' flock" (pp. 204, 222). Many Scriptural passages summon humans to assist humanity and this is the goal of Christian dentists on STMs. Kilner (2015) demonstrates that both this perspective of needy people as created in God's image and that of Christian service become powerful motivators for helping people (p. 8).

New Testament Examples of Short-Term Missions

Jesus' STM example occurred throughout his ministry on earth of only three years, Wilhoit (1991) describes Jesus' model from Matt. 20:28 and Phil. 2:7-8, stating, "This example of service is to guide the church as it not only ministers to an aching world but strives to eliminate the sources of injustice, oppression, and degradation . . . as it seeks to minister to the entire person" (pp. 27-28). Griffin (2009) emphasizes that Jesus often connected physical healing ultimately with spiritual healing by forgiveness of sins and reconciliation of man with his Creator

(p. 20). Priest (2008) urges Christian involvement in delivering medical care to those in need by relating that in the parable of the Good Samaritan "there is a moral imperative to help the wounded person across the cultural and religious divide (Luke 10:33-35)" (p. 292).

In his word to the rich young ruler (Matt. 19:16-22), Jesus spoke of devotional cohesiveness: "If you want to be perfect [whole, complete, mature], go sell your possessions and give to the poor" (v. 21); Wilhoit (1991) believes that in this incident, "Jesus had diagnosed the young man's malady as loyalty divided between money and God . . . he had to become spiritually whole by repudiating the enslaving claims that money and self had over his life" (p. 70). Dental STMs would exemplify the spiritual objectives identified by Wilhoit (1991), who states that the critical factor in spiritual wholeness is not the quantity of knowledge or training but the quality of the dedication to use those God-given skills (p. 69).

On a STM, Jesus witnessed to the Samaritan woman at the well (John 4:3-43). Stott (1975) makes a case for looking at the broader mission of Jesus beyond the emphasis on evangelism: "Our mission, like his, is to be one of service . . . He fed hungry mouths, and washed dirty feet, he healed the sick . . . every Christian should be faithful to his calling. The doctor must not neglect the practice of medicine" (pp. 24, 28). Taylor, a missionary and evangelical executive, agrees that Christian churches are challenged to a biblical, holistic ministry, whereby "most evangelicals have moved beyond the false dichotomy between 'gospel' and 'social responsibility'; the Great Commission and the Great Commandment are partners in demonstrating compassion through relief and development projects serving as a bridge for the gospel to be proclaimed" (as cited in Woodbridge, 1994, p. 344).

Laniak (2006) notes that "Jesus visited villages while healing every disease and sickness; compassion is a common response of Jesus to specific human needs in Matt. 14:14, 15:32,

20:34)" (p. 185). Shearer (2005) observes that the disciples watched Jesus sacrifice, serve, love, teach, and heal and it was time to send them out on STMs to copy the ministry that they had experienced (pp. 17, 30). Jesus dispatched his 12 disciples on STMs (Matt. 10:1-5; Luke 9:1-10) and a team of 72 others, two by two ahead of him to every town and place where he was about to go. He told them, "The harvest is plentiful, but the workers are few. Ask the Lord of the harvest, therefore, to send out workers into his harvest field" (Luke 10:1-2). Recruitment of dentists to bless the dentally needy around the world promotes sharing the Christian worldview in the current age, even though the dental workers are few.

Wilhoit (1991) demonstrates that Christ measures a disciple as someone who gives attention to marginalized and unlovely people (p. 29). Priest (2008) shows that Jesus promotes rewards for "disciples who give a cup of cold water to one of these little ones (Mark 10:42), and he likened serving one of the least of these to serving Jesus himself (Matt. 25:40)" (p. 292). Jesus directed his followers concerning the Great Commission to go and make disciples of all nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit, and teaching them to obey everything he commanded (Matt. 28:18-19). Saint (2001), who began I-TEC to provide dental training for indigenous people, declares that the Great Commission is not a spectator sport and that no believer should be sitting in the stands watching (p. 171).

The church that sent Paul and Barnabas on their first and subsequent missions to the Gentiles was not planted by the Apostles but arose out of the efforts of STM outreaches from Phoenicia, Cyprus, Antioch, and Cyrene (Acts 11:19-20). Timothy and Epaphroditus, a STM team in Phil. 2:19-28, and Mark, in II Tim. 4:11 ministered to Paul. Mack & Stiles (2000) note that Paul had numerous STMs with travel stays to cities averaging three months, including the planting of churches in Philippi and Thessalonica that were established in a matter of weeks (pp.

39-40). Paul rarely stayed in a city for longer than five months and Bessenecker (1997) emphasizes that, except when imprisoned, "Paul *only* practiced and directed STM projects. That's a powerful biblical model for STMs" (pp. 326-332). Harris (1999) echoes Paul's instructions to believers who will be recompensed for doing good (Eph. 6:8); they are enjoined to love and serve one another (Gal. 5:13) and, in Eph. 4:32, to be kind and compassionate to one another (p. 50). Paul embraced STMs and Wright (2011) writes on the holism that Paul espouses:

> Paul's view of God's ultimate future for the human person is the full integration of all that we are made to be . . . for Paul it is the body, not just the soul, the mind or the spirit, which is the temple of the living God . . . the New Testament teaches . . . the powerful work of God's spirit bringing about the new creation in which the body will be reaffirmed and glorified . . . the *whole* human open to God, not the human with one 'part' only available to divine influence or transformation. (pp. 2, 10. 12)

The persecution following the stoning of Stephen dispersed Christians into mission opportunities throughout Judea, Samaria, and the Roman Empire (Acts 8:1, 9:31). Bruce (1978) documents that many New Testament churches arose out of the efforts of STM volunteers (p. 475). The Apostolic Church has numerous instances where Christians went forth with the Gospel and invested in healing ministries and acts of charity, including John 15:16; Eph. 4:11; and Phil. 2:30. Priscilla and Aquila and others shared their faith as they traveled on business.

Christians are asked to go forth with the Gospel (Matt. 10:1-5, Luke 9:1-6, Acts 13, 18:9-10, and II Tim. 4:11) and follow Rom. 10:14-15: "How shall they hear without a preacher? And how shall they preach unless they are sent?" Other representative passages relating to missions involve outreach to all Jews and Gentiles (Rom. 1:5, 1:14, Gal. 2:8-9), praying for missionaries (Rom. 15:30-31), and the admonition to evangelism readiness (II Tim. 4:2, 5).

Scripture often records outreach, including the first missionary work in the early church—Peter's visit to the Gentiles at the house of Cornelius (Acts 10), which lasted no longer than a week. Women were significant STM participants in the Gospels—both as supporters and

as those who accompanied Jesus' travels—including Mary Magdalene, Susanna, Mary (the mother of James and Joseph), Salome, and Joanna (wife of Chuza, Herod's steward) and other women (Matt. 27:55-56; Mark 15:40-41; Luke 8:1-3). Biblically, God desires that Christians serve him and all people with their God-given skills—this would include STM dentists.

Developmental teaching that is biblical encourages learners to be formed in Christ and to grow spiritually and holistically while serving others (Gal. 4:19; Col. 1:28). Other Scriptures that speak to wholeness include these thoughts: "We will grow to become in every respect the mature body of him who is the head, that is, Christ" (Eph. 4:13); "So that we may present everyone complete in Christ" (Col. 1:28); and "May the God of peace himself sanctify you entirely (*holotelos*) and may your whole (*holokleron*) spirit and soul and body be kept sound and blameless at the coming of our Lord Jesus Christ" (I Thess. 5:23).

The holistic, biblical concept is advocated by Hoekema (1986), a late theologian from Calvin Theological Seminary, who rejects both trichotomy (the human is body, soul, and spirit) and dichotomy (the human is body and soul) stating, "Recent scholarship has recognized that such terms as body, soul, and spirit are not different, separable faculties of man but different ways of viewing the whole man" (p. 210; Ladd, 1974, p. 457). Wright (2011) agrees with a holistic view of man, arguing that "faced with this richly diverse and yet richly integrated vision of being human, why would one want to argue for something so thin and flat as dualism" (p. 15)?

Representative Bible Verses that Address the Six, Holistic Dimensions

Theologians Lowe & Lowe (2018) compiled these NIV verses in the six dimensions to typify biblical truth in each holistic context (pp. 42, 57, 62, 77, 147, 152, 158, 160, 164, 166-167, 183-185, 195-197, 203, 213-214, 218, 224) and to emphasize the Scriptural *allēlōn* principles of aiding "one another." Lowe & Lowe (2010) describe further that the word *allēlōn* "expresses

concepts like mutuality, reciprocity, equality, sharing, and exchange . . . Moulton & Geden (1987) . . . list 100 occurrences of *allēlōn* in the Greek New Testament . . . the key this is social exchange . . . the building of authentic relationships among Christians" (pp. 285-286, 288-289).

Verses on the *spiritual dimension* include: "Keep your spiritual fervor, serving the Lord" (Rom. 12:11); "explaining spiritual realities with Spirit-taught words . . . The person with the Spirit makes judgments about all things" (I Cor. 2:13, 15, 14:37); "you who live by the Spirit should restore that person gently" (Gal. 6:1); "We continually ask God to fill you with the knowledge of his will" (Col. 1:9). *Allēlōn* spiritual principles include these actions for/to one another: "let us pursue building up (*oikodomē*)" (Rom. 14:19); "admonish (*noutheteō*)" (Col. 3:16); "comfort (*parakaleō*)" (I Thess. 4:18); "consider (*katanoeō*) how to stir up" (Heb. 10:24); "confess (*ezhomologeō*) your sins and pray (*euxomai*)" (Jas. 5:16).

Verses on the *intellectual dimension* include: "Trust in the Lord . . . lean not on your own understanding" (Prov. 3:5); "You will keep in perfect peace those whose minds are steadfast" (Isa. 26:3); "Love the Lord your God with all your . . . mind" (Matt. 22:37); "waging war against the law of my mind . . . I myself in my mind am a slave to God's law . . . the mind governed by the Spirit is life and peace . . . be transformed by the renewing of your mind" (Rom. 7:23, 25, 8:6, 12:2); "we have the mind of Christ . . . stop thinking like children" (I Cor. 2:16, 14:20); "we take captive every thought to make it obedient to Christ" (II Cor. 10:5); "to be made new in the attitude of your minds" (Eph. 4:23); "being like-minded . . . have the same mindset as Christ Jesus . . . guard your hearts and your minds in Christ Jesus . . . if anything is excellent or praiseworthy—think about such things" (Phil. 2:2, 5, 4:7, 8); "Set your minds on things that are above" (Col. 3:2); and "I will put my laws into their minds" (Heb. 8:10).

Verses on the *physical dimension* include: “If by the Spirit you put to death the misdeeds of the body, you will live . . . we wait eagerly for our adoption to sonship, the redemption of our bodies . . . offer your bodies as a living sacrifice, holy and pleasing to God” (Rom. 8:13, 23, 12:1); “Do you not know that your bodies are members of Christ himself . . . Do you no know that your bodies are temples of the Holy Spirit, whom you have received from God? You are not your own . . . honor God with your bodies” (I Cor. 6:15, 19, 20); “that each of you should learn to control your own body in a way that is holy and honorable” (I Thess. 4:4). *Allēlōn* actions include “to wash (*nipto*) one another’s feet” (John 13:14); and “greet (*aspazomai*) one another with a holy kiss” (Rom. 16:16).

Verses on the *moral dimension* include: “God spoke all these words (the Ten Commandments)” (Ex. 20:1-17); “be pure” (Isa. 52:11); “be perfect . . . do to others what you would have them do to you . . . all the Law and the Prophets hang on these two commandments” (Matt. 5:48, 7:12, 22:40); “What comes out of a person is what defiles them” (Mark 7:20); “We must obey God rather than human beings!” (Acts 5:29); “the requirements of the law are written on their hearts, their consciences also bearing witness . . . whoever loves others has fulfilled the law” (Rom. 2:15, 13:8); “Do not be misled: ‘Bad company corrupts good character’” (I Cor. 15:33); “Come out from them and be separate, says the Lord” (II Cor. 6:17); “walk by the Spirit, and you will not gratify the desires of the flesh” (Gal. 5:16); “Speaking the truth in love . . . speak truthfully to your neighbor . . . do not let any unwholesome talk come out of your mouths, but only what is helpful for building others up . . . no immoral, impure or greedy person—such a person is an idolater—has any inheritance in the kingdom of Christ” (Eph. 4:15, 25, 29, 5:5); and “as you have always obeyed . . . work out your salvation with fear and trembling” (Phil. 2:12).

Allēlōn actions include the commands not to "judge (*krinō*)" (Rom. 14:13); "lie (*pseudomai*)" (Col. 3:9); "slander (*katalaleō*)" (Jas. 4:11).

Verses on the *emotional dimension* include: "A heart at peace gives life to the body, but envy rots the bones . . . Better a patient person than a warrior, one with self-control than one who takes a city . . . joy to the heart, and the pleasantness of a friend . . . Fools give full vent to their rage, but the wise bring calm in the end" (Prov. 14:30, 16:32, 27:19, 29:11); "Be joyful in hope, patient in affliction, faithful in prayer . . . live in harmony" (Rom. 12:12, 16); " We are not withholding our affection from you, but you are" (II Cor. 6:12); "your love for all God's people" (Eph. 1:15); "joy in the faith . . . make my joy complete by being like-minded, having the same love . . . do everything without grumbling or arguing . . . be glad and rejoice with me" (Phil. 1:25, 2:2, 14, 18); "clothe yourselves with compassion, kindness, humility, gentleness, and patience" (Col. 3:12); "this is love: that we walk in obedience to his commands . . . walk in love" (II John 1:6). *Allēlōn* actions include "love (*agapaō*)" (John 13:34); and "be kind (*charizomai*)" (Eph. 4:32).

Verses on the *social dimension* include: Social actions include: "rid yourselves of all malice and all deceit, hypocrisy, envy, and slander" (I Pet. 2:1); "Share with the Lord's people who are in need. Practice hospitality . . . Live in harmony with one another. Do not be proud, but be willing to associate with people of low position. Do not be conceited . . . live at peace with everyone . . . love your neighbor as yourself . . . Let us therefore make every effort to do what leads to peace and mutual edification . . . Each of us should please our neighbors for their good, to build them up . . . Accept one another" (Rom. 12:13, 16, 18, 13:9, 14:19, 15:2, 7); "You are still worldly. For since there is jealousy and quarreling among you" (I Cor. 3:3); "Get rid of all bitterness, rage, and anger, brawling and slander, along with every form of malice. Be kind and

compassionate to one another, forgiving each other . . . walk in the way of love" (Eph. 4:31, 32, 5:2). *Allēlōn* actions include: "Accept (*proslambanō*)" (Rom. 15:7); "bear (*bastazō*) burdens" (Gal. 6:2); "wait (*ekdexomai*)" (I Cor. 11:33); "submit (*hupotassō*)" (Eph. 5:21); "forbear (*anexomai*)" (Col. 3:13); "show concern (*merimnaō*)" (I Cor. 12:25); "honor (*proēgeomai*)" (Rom. 12:10); and "be at peace (*eirēneuō*)" (Mark 9:50).

Theological Framework for the Study

Theologians, Christ-followers, and missionaries (both long-and short-term servants) use their gifts to witness to others concerning the hope of spiritual wholeness where humans are called to "*love* (ethical/volitional/moral) the Lord your God with all your *heart* (emotional), and with all your *soul* (spiritual), and with all your *strength* (physical), and with all your *mind* (intellectual) and your *neighbor* (social) as yourself (Deut. 6:5; Matt. 22:37; Luke 10:27). Great thoughts on Christian holism are documented throughout theological and missional writings. Hoekema (1986) stresses holism in each human where the image of God includes the whole person and human beings were created to function in certain ways: to worship God, to love the neighbor, to rule over nature (pp. 69, 203). Wright (2011) also notes that humans need spiritual restoration because left to itself, humanity fractures, fragments, and disintegrates requiring life-giving re-integration of the human being so they may reflect God into the world (pp. 12-13).

Richardson (1976) tells of missionaries' efforts to impact cultures for Christ, stating that "entire populations found dramatic release from agelong oppression of savagery and superstition. They began to enjoy the blessings of spiritual wholeness through the gospel . . . social peace and security . . . education came in to fortify them against ruthless exploiters" (p. 84).

Pettit (2008) urges all people to love God with an "integrated devotion" (p. 40) and Saucy (1993) observes that the holistic term that appears more than any other in Scripture is *heart* as

"the operating center from which all behavior flows, thought, feeling, and will all come together in a unified whole" (p. 41). Robinson (1911) adds that the dimensions to the heart are many:

> The terms for "heart" (*leb, lebab*) occur [in the biblical Hebrew] 851 times, and may be grouped in five classes [he includes many Scriptural examples and the number of times noted]: (A) physical or figurative (29 times); (B) personality, inner life, or character in general (257 times); (C) emotional states of consciousness, found in widest range (166 times); (D) intellectual activities (204 times); and (E) volition or purpose (195 times). (pp. 22-23)

Averback (2002) advocates for holism in the theology of worship that is built on the whole Bible for the whole person in every part of our lives individually and in community, "all directed toward the glory and glorification of God (I Cor. 10:31)" (as cited in Pettit, 2008, p. 52). This devotion is expressed in serving others and Pettit (2008) approves the change or transformation that occurs in the believer's life which happens best in the context of authentic, Christian community and is oriented as service toward God and others (p. 19). This research study is apropos in accommodating the framework from the Bible on STMs and the theological basis to promote STMs to reflect God's love for all people. Pazmiño (2008) calls similarly for a lifetime of following Jesus that will help the Christ-follower to "formulate a faithful Christian approach to teaching and ministering with persons across the life span" (p. 218).

Further identifying the theological basis for medical and dental STMs, Priest (2008) claims that trips are rooted in the concern God expresses in the Bible about healing and salvation for the whole person (p. 292). Faith-based, dental STMs also highlight the churches' objectives identified by Estep et al. (2008) where "ministry to the world may be seen in three modes of operation: evangelism of the unsaved, the witness of a new community to the world, and engagement in mission and sociocultural concerns . . . as a community of healing" (pp. 242-243). Sanders (2007) capsulizes this giving to others by instructing Christians to find some of the

people called “the least, and seek to meet their needs; Christ tells us we can think of them as Him (Matt. 25:45)” (p. 25).

Pettit (2008) affirms that Christians are to desire a mission focus in the world as Christ-followers are called to become “salt and light (Matt. 5:13-14)” (p. 23). The goal of STMs is to reach out internationally as God enables, either as a “goer or a sender” (Via & Via, 2012, p. 5). Piper (2003) hopes that people will not spend their lives on trivial diversions, living for comfort and pleasure (while perhaps trying to avoid sin), but challenges all people “to live and die boasting in the cross of Christ and the glory of God as their singular passion” (p. 194). Buford (1994) proposes that Christians move from success to significance while doing what they like to do and what they are good at and encourages each person to finish well (p. 89; Buford, 2004). Serio (2009) suggests dentists give back by doing STMs, noting that after practicing dentistry and achieving a certain level of success and status, dentists are looking for something to sustain a high level of commitment and interest in dentistry (p. 6).

Lucado (2010) also urges Christians to outlive their lives by living in such a way that the world will be glad that each life mattered for Christ (p. 4). Guinness (2003) discusses God’s calling on people whereby seekers and believers can find and fulfill the central purposes of their lives (p. i) and Greene (2012) insists that STMs are an “ordained calling that should not be taken lightly—the rewards of a STM can be inestimable” (p. 56). All of these great, Christian leaders inspire dentists and others to continue serving God throughout the seasons of their lives (CDS Members, 2015, pp. 27-28). All Christian, STM books espouse the spiritual growth and the evangelistic returns of STMs in the lives of the participants.

Cross-cultural STM literature includes Hiebert (2008) who provides an anthropological understanding of how worldviews can be transformed. Lingenfelter (2008) accentuates effective,

Christian, cross-cultural leadership in covenant relationships and Livermore (2015) instructs on successful leadership with cultural intelligence. Hoekema (1986) advocates for the understanding of other cultures:

> We are enriched by people of different races, different backgrounds . . . It is not good for a person to have social fellowship only with others 'of his own kind'. . . Man's relatedness to others . . . means that we should be eager to help others, heal their hurts, supply their needs, bear their burdens, and share their joys . . . love for others is an essential aspect of his humanness. (p. 78)

Archer (2014) gives insight into the preparation, the philosophy, and the application of STMs. Schuetze & Steiner (2018) encourage STMs that build international relationships and Saint (2001) powerfully calls for the inclusion and education of indigenous believers in skilled-based ministries such as dentistry (p. 80). Howell (2012) addresses universal commonalities amongst STM trip participants while addressing the implications for how North American churches understand missions, grapple with poverty, and relate to the larger global church (p. 258). Overholt (2013) draws on 70, general STMs to highlight key ingredients that need to be incorporated into the philosophy and the strategy of a church's mission program. Miller (2016) calls Christians to rethink their methods and goals before attempting STMs and Livermore (2006) believes that although STMs are a great way to impact the Kingdom, groups "can lack effectiveness because of mistakes or naiveté" (p. 194). STM teams can learn much from these knowledgeable authors of STM literature. Theological advantages to STMs are meaningful for the recipients and the STM members to study as they go forth with the Gospel.

Theoretical Framework for the Study

Developmental psychology entails scientific studies that postulate the human alterations that transpire through life passages. Robinson (1911) defines this process as "the living individuality of growth" (p. 2) and Moreland & Ciocchi (1993) discuss individual integration as

a challenging task that becomes a lifelong project that should occur within an individual believer's life and among the various members of the Christian community working together (pp. 9, 11). It is hoped that dentists will experience progressive growth in spiritual, professional, and personal maturation as they encounter STM challenges and encouragements. Oliveira (1995) is a proponent of medical and dental missions as promoting a whole view of the human "as a physical, intellectual, psychological, mental, and emotional being" (p. 43).

Haski-Leventhal (2009) notes that developmental psychology provides theories of the stages and development of altruism based on the idea that a person is born egoistic, and only through time and socialization learns to control these impulses (p. 292). STMs aid personal growth and Moreland & Ciocchi (1993) discuss developmentalist ideas that show that although humans have the capability for rational thought, this potential is not always seen in equal measure in the capabilities of evidence gathering, analysis, and reason (p. 120). Developmental growth is not evenly experienced by individual people due to the great variation in human abilities and cultural influences.

However, Christians may easily embrace the tenets of developmentalism following the documentation of Wilhoit & Detonni (1998) who show that "As a field of academic study, Christian education has gradually come to accept developmentalism as its theoretical base . . . largely because of the compatibility and consistency between its presuppositions and the essential foundations for the field in Christian theology" (p. 7). These developmental theories of growth can also be tied to personal improvement and accomplishment through events such as STMs. Wilhoit (1991) advocates for Christian programs (such as mission endeavors) that have been shaped by the study of human development as they "tend to stress holism, age-appropriateness, enriching experiences that will promote growth . . . In service, the church is to

use all of the gifts and resources it possesses as it seeks to minister to the entire person" (pp. 145, 28). These unifying principles apply to STM programs (such as dentistry) that reach the participants with integrated benefits. Various detractors may alter trip experiences, which will be addressed further in this study.

Developmental events such as STMs also foster leadership and management development. Northouse (2019) believes that developmental perspectives underpin authentic leadership and that growth can be nurtured in a leader over a lifetime, often triggered by major life events (p. 198). STMs are important developmental situations that bring growth in areas not normally addressed in the daily, home-based lives of the team members.

For further understanding of the origination and the progressions that have advanced developmental psychology, key scientists and psychologists are presented in the following historical portion of the literature review.

The Historical Antecedents of Developmental Psychology

Jean-Jacques Rousseau (1712-1778) and John B. Watson (1878-1958) are typically cited as providing the foundations for modern developmental psychology, although Charles Darwin (1809-1882) is credited with conducting the first systematic study in the field. Rousseau focused on how and why certain modifications change over time and throughout an individual's life-cycle in the cognitive, social, intellectual, and personality domains. Watson, a behaviorist, took much of his theory from John Locke (1632-1704) who was convinced that the mind was a *tabula rasa* (a blank slate) where humans have no free will; rather, a person's environment determines their behavior through classical and operant conditioning.

Sigmund Freud (1856-1939) proposed developmental concepts and substantively influenced societal perceptions by surmising that humans had a conscious, preconscious, and

unconscious level. Freud suggested three personality structures (the id, ego, and superego) and five universal stages of development, each characterized by the erogenous zone that is the source of a child's psychosexual energy. These early developmental scientists and researchers presented features that diverged from basic foundations of Christian theology.

Jean Piaget (1896-1980) and his theories of cognitive development were counter to Freudian psychoanalytic theories that encouraged parents to avoid frustrating the developing child (Piaget, 1973, p. 6 as cited in Wilhoit & Dettoni, 1998, p. 51). Piaget believed that humans do not learn unless faced with an optimum level of dissonance and disagreed with the ideas of Skinner and programmed instruction. Piaget dominated twentieth-century developmental psychology and is best known for exploring the mechanism and the stages of cognitive development from birth to adulthood. Piaget claimed that at birth the mind is not a passive, blank slate, as Locke purported, but has inherent schemata for information systematization. Environmental stimuli prompt assimilation and accommodation when accumulating additional mental files. Piaget hypothesized four stages (sensorimotor, pre-operational, concrete operational, and formal operational), but did not designate their occurrence at any given age. Since then, studies have proposed timetables for the emergence of various cognitive abilities.

Wilhoit and Dettoni (1998) summarize Piaget's ideas in application to Christian education which could also apply to lessons learned on STMs: "While Piaget made no claim of being a follower of Christ, his insights can remind the Christian educator of basic biblical principles: (1) the educational purpose is development; (2) learning is a social activity; and (3) learning is a disequilibrating and re-equilibrating process" (pp. 50-51, 59-60). Piaget's cognitive developmental theory fostered the idea that "People tend to grow and develop as they struggle with problems in a social setting. . . interactions with people who have different perspectives can

be a powerful stimulus to growth" (Wilhoit & Dettoni, 1998, p. 51). Therefore, STMs are an extremely useful tool in holistic development as participants learn, develop, and grow in relationship with others.

Erik Erikson (1902-1994) developed a model of eight stages of psychological development and articulates human passage on the way to maturity and wisdom. Erikson synthesized each stage as a combination of biological drives and societal demands where a crisis must be resolved for healthy development to proceed. For Erikson, the community becomes a part of an individual's development, which challenges and supports the growing person. Erikson's stages, in order, including their appropriate psychosocial crises and basic strengths are:

> 1. Trust vs. Mistrust = hope or withdrawal; 2. Autonomy vs. Shame, Doubt = will or compulsion; 3. Initiative vs. Guilt = purpose or inhibition; 4. Industry vs. Inferiority = competence or inertia 5. Identity vs. Identity Confusion = fidelity or repudiation; 6. Intimacy vs. Isolation = love or exclusivity' 7. Generativity vs. Stagnation = care or rejectivity; 8. Integrity vs. Despair = wisdom or disdain. (as cited in Bennis, 2009, p. 62)

Erikson demonstrated the concept of generativity (#7), which easily applies to STMs, where, in midlife, humans engage with thoughts of the well-being of future generations, having spent their earlier years establishing an identity for themselves. They desire to generate a positive legacy that will outlive them. Wilson (2012) agrees that "In later life, generative concerns become more salient . . . a need to improve the environment for future generations, a desire to volunteer as part of the maturation process, and a wish to work with the young and pass on to them their knowledge" (p. 190). Post (2005) acknowledges that Erikson similarly "surmised a connection between health and generativity—that is, altruism in older adults focused on a younger generational cohort" (p. 67). This ambition propels people to transmit knowledge to the younger generations (i.e. the generous and altruistic dentists who convey skills to students and/or indigenous learners).

A STM brings a life-changing spark and Erikson would undoubtedly concur with the value of STMs and holistic travel, with the caveat that "because persons are engaged continuously with crises and pressures of life, no one stage is resolved once and for all. Issues resurface later in life and require attention" (as cited in Pazmiño, 2008, p. 207). Erickson (2015) further agrees that humans are to be treated as unities since their nature is not reducible to a single principle; for example, a human is a complex being whereby spiritual conditions cannot be dealt with independently of their physical and psychological conditions, and vice versa (p. 200). Adjustments and flexibility are a reality in STMs and a learning curve is fundamental to missions that will generally bring developmental growth with intermittent integrative fluctuations.

Lawrence Kohlberg (1927-1987), the most influential psychologist in the field of moral development, was concerned with justice and the moral growth that continues throughout an individual's lifetime (Tavris & Wade, 1997, p. 266). Kohlberg (1984) proposed universal levels of moral development where, in Stage Five, post-conventional (principled) morality is attained as humans realize that values and laws are relative, that others hold different standards, and that laws are important but can be changed. A few great individuals reach Stage Six where a moral standard based on universal human rights is achieved. Kohlberg added a Stage Seven to his developmental progression for spiritual matters and moral development, fostering an ethical and religious orientation centered on *agape* where universal, responsible love, forgiveness, and compassion are freely given. Agape does not compete with justice principles; rather, it inspires individuals to go beyond the demands of justice (Kohlberg, 1981, p. 308). Moreland & Ciocchi (1993) agree with Kohlberg that "some human beings acquire the highest level of rational reasoning processes and are . . . capable of making better moral judgments than those who have yet to achieve these intellectual skills" (p. 128). All of these presuppositions apply readily to

STMs that advocate for morality development and expression of *agape* in the pro-justice endeavors of Christian STMs.

Two components distinguish the structures Kohlberg explored, including social perspective-taking (the ability to put oneself in the shoes of another) and justice operations (how one understands equality, equity, and reciprocity—give-and-take—in a moral conflict situation (Kohlberg, Levine, & Hewer, 1984, p. 251). Kohlberg's principles fit STM objectives in beneficial ways as STM participants desire to bring justice and Christian service to humanity.

James Fowler (1940-) is widely regarded as the seminal researcher in the psychology of religion and proposes the dominant theory of faith development; Fowler identifies himself as a 'classical liberal Protestant' (Wilhoit & Dettoni, 1998, pp. 75-76). Fowler built on the work of Piaget on cognitive development and that of Kohlberg in moral development. Pazmiño (2008) melds these concepts, stating that "Fowler views faith as active, as a verb. Faith is a process of becoming rather than something a person possesses" (p. 213). Wilhoit & Detonni (1998) summarize Fowler's six stages of faith through which human spirituality may progress, with the proviso that "because structural-developmental stages are not controlled exclusively by chronological growth, not all people progress to the later levels" (pp. 77-82). Fowler discusses stages that often lead to service to others. Stages four, five, and six all impact the developmental growth that occurs on STMs:

> Stage four—"Individuative/Reflective Faith" (young adulthood) is *individuative* in the sense that the person now establishes his or her own identity (individuates) and *reflective* in that it is marked by a stage of conscious thinking about (reflecting on) the assumptions and practices of the group. Stage five—In "Conjunctive Faith" (midlife and beyond), a person seeks and values significant encounters with other people and groups in a new quest for understanding . . . Stage six— "Universalizing Faith" (midlife and beyond) requires a radical decentralization of the self and a radical new quality of participation with God. (as cited in Wilhoit & Detonni, 1998, pp. 78-82)

Fowler speaks to holism as he insists that faith is dynamic, evolving, and relational—an integral part of each life (as cited in Wilhoit & Detonni, 1998, p. 86).

Urie Bronfenbrenner (1917-2005) developed an ecological systems theory to explain how the inherent qualities of people and their environments interact to influence growth and development in various, holistic ecosystems. The effects of external determinants would increase development considerably in STM settings. Lev Vygotsky (1896-1934) posited that people learn through hands-on experience and social interactions. Unlike Piaget, he claimed that timely and sensitive intervention by adults when learning a new task—called the zone of proximal development—could help young people learn more readily. Vygotsky was strongly focused on the role of culture and argued that development moves from the social level to the individual level (Vygotsky, 1978). He claimed that psychology should focus on the progress of human consciousness through the relationship of an individual and their environment. As proposed by Bronfenbrenner and Vygotsky, STMs would certainly include hands-on and social interactions that support the holistic development of dentists on STMs.

Developmental Psychology and Its Application to Short-Term Missions

A psychological, developmental approach relies on equipping the growing individual with useful holistic tools while building a map for life through interactions between present experiences, personal perspective, and the accumulated knowledge of society, the nation, or the church (Wilhoit, 1991, p. 102). Accentuating these interconnections, the goals of dental STMs include the integrated theories of developmental psychology that are applied to the six, holistic dimensions of personhood. Christians who serve other people may confirm the tenets of developmentalism through the theological and theoretical advice of Wilhoit and Dettoni (1998) who believe that “Bible-believing Christian education professors and publishers are increasingly

aware of developmental psychology and at the same time can integrate psychology with historic orthodox theology. This is an encouraging trend" (p. 48). Wilhoit (1991) further enlightens that developmentalists do not disparage factual information about the Bible (p. 99).

Pazmiño (2008) agrees that a Christian worldview can accommodate developmentalism, but is careful to note that "God's Spirit can intrude on the developmental process in unanticipated ways . . . The Holy Spirit encounters human spirits in gracious ways that may not always be anticipated by stages" (p. 207). Christian STMs often are impacted by interceptions by the Holy Spirit who works in the lives of the participants that are often more tuned in to spiritual interventions. Wilhoit and Dettoni (1998) show that spiritual growth is reliant on more than humans can impact by themselves by stating that "Ultimately, growth towards Christlikeness is a gift of God. Each Christian has spiritual gifts, so the group itself can become a means of grace. Though groups can facilitate growth, godly development is a result of God's grace" (pp. 51-52). The important concept to emphasize on dental STMs is that God's grace is preeminent through his desires for the growth of all team members, the door-opening ability of the dentistry, and the evangelistic, outreach goals of the dental group.

Wilhoit & Detonni (1998) are convinced that developmental leaders and teachers (and, in this case, dentists) can advocate for the development of the whole person and for the Christian, this means a "special emphasis on faith and spiritual development. . . Humans are composed of physical, cognitive, social, affective, moral, and spiritual/faith development aspects or domains of development. People do not develop in one domain apart from the others. Human beings are integrated wholes" (p. 255). Therefore, for the Christian, it becomes evident that developmentalism is in God's plan:

> God put in place elaborate processes of continuous change, maturing, and re-creating. Life itself is represented by . . . interlocking cycles . . . Thus, Christians can recognize

> this same activity of God in the sequence, stages, and patterns of human development. God's internal consistency can rightly be celebrated in the developmental view of human life. (Wilhoit & Dettoni, 1998, p. 11)

Wilhoit (1991) believes that developmentalists seek to help Christians gain knowledge of the faith and to encourage them to balance and to integrate the Bible, personal experience, and observation of the natural world (pp. 94, 100). Developmental psychology can bring awareness of growth cultivated in all domains for the benefit of every individual who serves others in the name of Jesus Christ, including participation in STMs. Wilhoit & Detonni (1998) conclude that wisdom begins with knowledge and leads to the fear of the Lord (Job 28:28) and the ongoing development of the whole person in Christ (Eph. 4:15-16) as other people are served (p. 17).

Developmental psychologists correlate thinking, feeling, and behavioral change throughout life. The following thematically-related literature review will document the effects of dental STMs on dentists and team members as they are impacted in the six integrated areas during the life-changing aspects of STMs. The quotes will be presented in the voice of each author to bring realism and richness that a mere summary of ideas could not produce; this reflects the beauty of a qualitative proclivity to the dissertation. When this researcher collated holistic dimensions wherever they were found in the literature, the results generated exceedingly more benefits than detractors for STMs. All attempts have been made to be as representative of the literature results as possible. Guttentag (2009) declares that STMs are beneficial to participants and that most studies of volunteer tourism are overwhelmingly positive about the value, but that these studies focus almost entirely on the advantages for volunteers (p. 537).

Related Literature

In this section, the relevant literature on the six dimensions of the spiritual, intellectual, physical, moral, emotional, and social aspects of personhood has been identified from the

developmental, psychological theory that is foundational to this dissertation. An outline and summary of the three, primary benefits and the three, predominant detractors in each of the six growth areas are provided in the next six paragraphs. These concepts were found repeatedly in STM and volunteerism literature. Note where these principles were tested in statements involved in the research instrument (Table 1 and Appendix A), constructed by this researcher after thorough assimilation of literature on Christian mission and service resources that involved over 250 books and journal articles.

Spiritual aspects of STMs that are beneficial include (1) following mandates and callings, (2) spiritual preparations and outreach, and (3) personal and spiritual growth. Spiritual detractors cover (1) differing doctrines and beliefs, (2) restrictive and persecution situations, and (3) disturbing awareness of sin and evil.

Intellectual benefits encompass (1) cultural and travel adventures, (2) mission and career experience, and (3) educational and mentorship exchange. Intellectual STM hindrances consider (1) dealing with planning and change, (2) personal and aggrandizement motives, and (3) dental provider inexperience controversies.

Physical benefits integrate (1) improvement for health and aging, (2) safe and comfortable missions, and how (3) therapeutic touch impacts ministry. Physical STM detractors include (1) challenges, constraints, risks, and discomforts, (2) evaluating myriad STM costs, and (3) enduring excess patient expectations.

Moral benefits of STMs incorporate (1) purposeful, significant, moral duties, (2) giving back to people, and (3) honor, respect, and social justice. Moral challenges involve (1) ethical and moral concerns, (2) dealing with poverty issues, and (3) compromised standards of care.

Emotional advantages involve STM aspects of (1) joyful, positive, empathetic living, (2) self-esteem and self-actualization, and (3) overcoming diverse, troublesome emotions. STM emotional contentions may bring (1) disturbing STM emotional reactions, (2) compassion fatigue and burnout, and (3) cultural dissonance and re-entry issues.

Social perks of STMs include (1) inspiring and encouraging followers, (2) fostering relational, teamwork benefits, and (3) relationships with nationals and missionaries. Social objections are comprised of (1) teamwork and interpersonal conflicts, (2) burdening nationals and missionaries, and (3) home responsibilities and concerns.

More extensive STM or volunteerism documentation will expand each of these concepts in the following areas of thematically related literature.

Spiritual Benefits of Short-Term Missions

Following mandates and callings. Most religions encourage helping others and Rehan (2018) believes that for many dentists, mission work aligns with their spiritual beliefs (p. 13). Grönlund et al. (2011) suggest that religion is often connected to value-based motivations for volunteering (p. 92). The Latin phrase *quid pro quo* endorses an exchange of goods or services, in which one transfer is contingent upon the other—a favor for a favor. Similar sayings occur in a Muslim orientation: “The reward of goodness is nothing but goodness” (Koran 55:61), Hindu sacred writings: “No one who does good works will come to a bad end” (Bhagavad Gita 6:40-41), and Buddhist thought: “Many good deeds should be done by one born a mortal” (Dhammapada 53). Stukas et al. (2016a) maintain that religious organizations may be a valuable source of reliable volunteers since religiosity and key other-oriented motivations of value expression are positively associated (p. 128).

This dissertation is based on the Christian worldview which espouses Christ's Great Commission. Also, Eph. 4:28b, 32a appear especially apropos to dentists when admonishing: "Work, doing something useful with your hands [dentistry], that you may have something to share with those in need . . . Be kind and compassionate to one another."

Other spiritual mantras include "Do unto others as you would have them do unto you" (Matt. 7:12), culturally labeled The Golden Rule, and the popular saying "What would Jesus do—WWJD?" (Overholt, 2013; Via & Via, 2012). Withers et al. (2012) note that many individuals want to give back to society or to return the favor for all their blessings or their good life (p. 377; Bimstein et al., 2008; Brown, 2005; Jenkinson et al., 2013). Richter (2009) deems that privileged humans have a "noble obligation (*nobles oblige*)" to help the less fortunate (p. 29) and many STM team members identify a call from God behind their desire to serve. Beyda (2015) claims that medicine encompasses a calling by its service to humanity and, although many things have gone wrong with the world, God insists on putting them right again—practicing medicine without spirituality is one of those areas needing correction (pp. 36, 45).

Serio (2009) acknowledges that people go on STMs with a desire to support a church mission, a humanitarian, or service-organization project (p. 11) and Withers et al. (2012) relate that most volunteers have a sense of personal connection to an organization or cause (p. 375). Whipps, a dentist, declares, "I feel it is my God-given ability to help people" (as cited by Burger, 2016, p. 20) and Wilson (2012) reports that religious beliefs, attitudes, and sentiments are a fertile source of volunteer motivations (p. 182; Grönlund et al., 2011; Hodgkinson, 2003; Kim & Jang, 2017). Fung (2018), a missionary leader, passionately urges Christians to live to be forgotten, Christ to be remembered and Griffin (2015) asserts that "every place your feet go is a mission field" (p. 33).

Wilhoit (1991) believes Christians are called by God to be instruments of his compassion and service in the world (p. 27). Beyda, a missionary physician, (2016) states, "It becomes evident from time to time that God wants us to feel the poke He gives us" (p. 18). Guinness (2003) defines calling as "the truth that God calls us to himself so decisively that everything we are, everything we do, and everything we have is invested with a special devotion and dynamism lived out as a response to his summons and service" (p. 4). Howell (2012) specifies that a STM at its heart and essence, is about sacrifice, service, and calling (p. 57).

Griffin (2015) emphasizes that STMs are about disciple-making and that team members must be disciples themselves to encourage disciples of Christ globally (p. 32). Howell (2012) suggests there is almost nothing the church can better do than STMs since their benefits outweigh the financial costs and become the best tool for discipleship (p. 109). Via & Via (2012) find that STMs can energize the church and increase interest in giving and that the enthusiasm brought back from STM endeavors can be contagious (p. 2). McDougall (2012) admits that

> enthusiasm and fire for mission is what is often sadly lacking in the Western church . . . members who come with me on STM visits return home with an increased living faith, a life that is centered on worshipping God and a huge desire to reach out in practical love. So, for me as a church leader, the opportunity for people to go is vital. (p. 103)

Lingenfelter (2008) endorses cross-cultural exchanges that inspire people who come from differing cultural traditions to participate in building a community of trust that empowers participants to achieve a "compelling vision of faith" (p. 30). These sentiments demonstrate the over-arching goal of Christian, dental STMs from writers on mission experience.

Spiritual preparations and outreach. Most Christian STMs would declare that the major reason for going is to build bridges towards evangelistic opportunities. Carney, a dentist who took a total of 450 dental students and mentors on 18 trips to Jamaica in 2018, states: "We are to be fishers of men and, to catch fish, we have to get up and go" (as cited in Burger, 2017, p.

18). Steffes & Steffes (2002) acknowledge the spiritual importance of STMs: “A medical cure has an effect of fewer than 70 years; a spiritual cure for the uniformly fatal disease of sin is eternal in its effect” (pp. 35, 44). Mack & Stiles (2000) report that the most powerful evangelism may come from the one who pulled the tooth (p. 114) and Warren (2002) encourages mission involvement as participants store up treasures in heaven by “investing in getting people there” (cited in Allen & Vaughn, 2016, p. 155). Beyda (2016) confirms it a privilege to be used by the Lord to improve a person’s health but believes it becomes ultimately more rewarding when the STM visit brings someone to God which is the ultimate act of healing—never forgetting that the group is the instrument that the Spirit uses (p. 50).

Christians advocate for the local ministries they visit on STMs and Lasker (2016) states that a frequent concern for STMs is spiritual readiness (p. 58). Via & Via (2012) remind that sharing the gospel in a foreign land is all about Jesus Christ and the focus must always be on him (pp. 34-35). McDougall (2012) notes that STM team members are often surprised when what they knew came to memory when they started sharing and what they knew came alive more in them once it had been exchanged instead of just stored (p. 14).

For spiritual preparation, many books list examples of effective gospel presentations, apologetical tenets, and testimonial pointers (Erickson, 2015, pp. 338-339; CDS Members, 2015, pp. 293-296; Miller, 2016, pp. 90-91). Via & Via (2011) present 16 practical methods to open doors for the gospel on the mission field, stating “be winsome to win some” (pp. 39-42). Mack & Stiles (2000) urge STM members to be both bold and contextual (p. 120). Spiritual follow-up is important as one STM leader stated that whatever church and pastor they work with, they leave the new converts in their care to be discipled (as cited in Lasker, 2016, p. 28).

McDougall (2012) reveals that the efforts to witness on STMs help participants share their faith more readily when they return home (p. 13) and Griffin (2009) suggests that when dentists get back to private practice, discussing their mission trips is a very natural way to move patient conversations in the direction of the gospel, and as patients express admiration towards the dentist, attention can be directed towards God (p. 20).

STMs aide in drawing the world's Christians together as Hiebert (2008) challenges: "In missions, we must identify with people in our common humanity" (p. 290). The mere presence of a STM visit in a community brings interest and often gratitude; Richter (2008, p. 18) identifies it as standing on common ground with others (p. 18). Livermore (2006) recounted that within their first hour in Rwanda, the local team said, "Ninety percent of your job is done. You're here. Your presence speaks volumes" (p. 95). McDougall (2012) voiced that recipients of STM groups in many countries have stated that "it's as powerful for us purely to stand alongside them as it is for us to bring them help" (p. 13). Saint (2001) believes

> The specific purpose of missions is to plant the church of Christ within every distinct people group on earth. It is then the responsibility of those churches to evangelize the rest of their group . . . to plant indigenous churches that are self-propagating, self-governing, and self-supporting [following] the "Know-Go-Show-Blow" method (Know God yourself. Go to where He isn't known. Show them how to follow God. Blow—leave to start the process again in another place). As Acts 2 shows, love between Christians can also be a very effective testimony to the unbelieving world of the truth of the gospel. (pp. 19, 149, 167)

Miller (2016) comments on local people's reactions in a developing country to a STM team, saying he could tell by the look on the national's faces that something special had happened when someone from a rich country cared enough to come and demonstrate the love of Jesus by giving them a sense of value (p. 91). Via & Via (2012) remember one national pastor who appreciated the STM visitors, saying:

> Your coming reminds me that God does love us . . . many people wanted to help Haiti after the earthquake in 2010 . . . one of our missionaries voiced her concerns about this global effort. She said, 'What we needed more during that time was a helping hand. We needed people . . . the church, not just their money.' (p. 9)

Overholt (2013) endorses the zeal and enthusiasm of a STM team that can be an encouragement to the local church members and, when a STM group leaves, the church will often continue to reach out to their community and beyond, inspiring the replication of missions (p. 95).

Richter (2008) validates that STMs show "embodied faith for the sake of the world," acknowledging Jesus' prayer in John 17:21 that all may be one (p. 3). Smith (2009) emphasizes that Christians serve the world by demonstrating what redeemed human community and culture look like (p. 207) and Estep et al. (2008) hope that the church may imitate Gal. 6:9-10 to conduct its mission as a community of healing and reconciliation (p. 243). Ivanoff et al. (2017) espouse the goal of integrating people to be cross-culturally sensitive, socially aware, and community-oriented (p. 108) and Anderson (1991) also would find that Christian activity as bringing "reconciliation as the true goal of human personhood" (p. 129).

Carson (2008) recognizes the New Testament portraits of the church showing that the locus of the new covenant people of God is not in a nation—neither Israel nor any other nation—but is a transnational community, establishing the universal sphere of Christian witness to all nations and all peoples (p. 55). Griffin (2009), a dentist, observes that after multiple STMs, he has a greater appreciation for the universality of the church (p. 22), McDougall (2012) is convinced that STMs help believers realize what God's worldwide church looks like, expanding the worldview of the believer (p. 13), and Thurman (as cited in Woodbridge, 1994) insists that the church needs a global vision (p. 333).

Lasker (2016) observes that STMs have a prevalent objective of building religious faith and church communities in other countries and developed country church members give more

generously of their time and money after seeing a mission station, school or orphanage firsthand (p. 64). Overholt (2013) reveals that when members from his congregation have been on a STM trip, they tend to be more actively involved in local outreach initiatives than those who have not had a STM encounter (p. 95). Recent studies suggest that when STM people return, they support missions at almost double the level they did before and pray more specifically for those they visited (Barna, 2008, p. 2; Mack & Stiles, 2000, p. 38). Livermore (2006) touts that after a STM, team members show an altered prayer life, a commitment to resist materialism and a newfound orientation (p. 53; McDougall, 2012). Peterson (1991) performed a thorough research study on STMs that found

> Substantial changes in prayer, financial giving, commitment to world missions, mission-related activities and education, and feelings about returning to the mission field. These findings demonstrate an increase in participants' future contribution to the Biblical mandate of world mission as a result of their STM . . . Is STM really worth the time and money? Yes, a resounding *Yes*! (pp. 1, 30)

Griffin (2015) mentions a friend who says that the Lord called him to tithe not only his money but also his time as he goes on STMs five times a year "passing out the love of Christ" (pp. 32-33). Mack & Stiles (2000) exult in changed lives after STMs as they have seen people transformed for the kingdom with fresh force and power—both those short-termers they have taken and those nationals who have hosted groups (p. 11). Chen (2016) states that learning through volunteering extends the scope of the volunteer's life, which likely deepens the development of spirituality because it involves experiences of transcendence by communion with self and others (p. 224). Offut (2011) sees STMs as key to multicausal social processes that are moving churches in the new centers of Christianity away from organizational insularity as STMs help to create a thicker global society within Christianity (pp. 809-810).

Dental STMs fit well into countries that are inhospitable to Christianity and lend credence to Christian communities. Saint (2001) identifies Gospel-spreading, door openers, such as dentistry, as the most effective method of breaking down spiritual bias against Christ's remedy for spiritual hurt as teams offer hurting people relief to their physical pain (p. 116). Archer (2014) says that a highly-specialized dental and medical team

> is a perfect vehicle to get believers into a field where usually Christians would not be welcomed. A village populated by Hindus would probably not appreciate a team of open-air evangelists bringing a new religion to them, but the same town would certainly welcome a team offering free medical care without much concern for their religion. (p. 49; Stevens, 2017, p. 18)

Overholt (2013) observes that as Jesus was not well-received in his home town, a foreign group coming in to minister often causes people to take notice and listen more carefully (p. 96).

Cultural sensitivity becomes important in the transcultural, religious exchange. Overholt (2013) feels that STM groups need to be careful to export principles and a way of doing church that can be reproduced in the country they are visiting (p. 62) and Cheek (2015) shows concern about not applying Western solutions to local problems, but instead to look for culturally friendly solutions (p. 199). Livermore (2006, p. 81) maintains that STM teams must beware of taking their agenda and arrogantly thinking they can organize the global church around some strategy they are convinced is biblical, when it might be yet another cultural model (p. 81). This calls for cultural perceptiveness and compassionate awareness during STMs.

Personal and spiritual growth. Meyer & Meyer (2019b) document that spiritual maturation and holistic development is a common quest with STMs (p. I) and Trinitapoli & Vaisey (2009) endorse STMs as a transformative experience (p. 139). Livermore (2006) suggests that the foremost reason people go on STMs is for the life-changing experience it promises them (p. 53) and McDougall (2012) touts going on STMs to grow and believes that every believer

would benefit from participating on a STM (p. 2). Lasker (2016) agrees that for some people, promoting a volunteer's personal growth is the primary goal (pp. 3, 64) and Barna (2008) suggested that STMs bring participants a deepening or enriching faith, and broaden their spiritual understanding (p. 2). Mascone (2017) affirms that volunteering helps people learn valuable things about the world and themselves (p. 3) and Richter (2008) concludes that STMs provide a powerful crucible for Christian formation, perhaps even for personal and social transformation (p. 11). Miller (2016) advises that the STM team members need not be concerned if their primary purpose is to get a better vision for their lives, and recommends that if they go humbly and are honestly seeking a closer walk with God, they will find what they are searching for as Jesus promised in Matt. 7:7 (p. 95). Via & Via (2012) believe that individuals who participate in STMs come home with a deeper love for Jesus and greater compassion for the world (p. 2) and several authors identify STMs as a contemporary form of pilgrimage (Richter, 2008; Di Giovine, 2013, as cited in Occhipinti, 2016; Howell, 2012).

STM teams may experience spiritual enrichment in other countries that might be difficult to receive in their own industrialized countries. Erickson (2015) states that in localities where medicine and other forms of technology are not yet as available as in the developed world, supernatural works of God are more widespread (p. 153). Via & Via (2012) remind that God is at work among the nations and he invites STM participants to be part of his story (p. 5) as God allows STM groups to see his power, comfort, and protection amidst new challenges (Johnson, 2003). Mack & Stiles (2000) assert that STMs are an instrument God uses to help Christians learn to trust him in more profound ways (p. 22) and Hudson Taylor purports that faithfulness in little things is a great thing (as cited in Allen & Vaughn, 2016, p. 95).

Trinitapoli & Vaisey (2009) see the STM as a formative—even transcendent—experience for adolescents and young adults (p. 139) and STMs are an eye-opening adventure for people during all life stages. Anthony & Benson (2003) speak about the enthusiastic passions of youth who were created for valor, courage, and great causes: “If the Great Commission is ever going to be brought to completion, it will require the harnessing of youthful energy” (p. 224).

Spiritual Detractors of Short-Term Missions

Differing doctrines and understandings. Tucker (2004) documents that many controversies in church history have related to outreach, evangelism, and doctrinal controversies on the mission fields; she asks: "Where do competition end and ecumenical harmony begin?” (pp. 11-12, 25). The lack of spirituality and belief differences can bring contentions between participants on STMs. Okun et al. (2015) wish that volunteers of different faiths and belief systems could interact in ways that promote interdependence, trust, and social and moral norms for helping others, although young adults are increasingly identifying themselves as spiritual but not religious (p. 868). Sykes (2014) noted that current STM efforts are increasingly secular (p. 41). Rarely do all team members on a STM see eye-to-eye doctrinally, often bringing divisiveness. Via & Via (2012) reported that one STM group

> had two men who differed on a particular point of theology. For the duration of our mission, they bickered and argued with each other without any consideration of who was watching and listening. Years later, on a return to the same country, the nationals remembered the conflict. (p. 30)

Archer (2014) expresses concern that doctrinal differences, philosophy of ministry, or style of musical worship might occur and that the team could amass questions, disagreements, concerns, and issues that can risk the unity of the group (p. 100). Other leaders worry about harmful religious messages transmitted on STMs.

Lasker (2016) states that STMs may be problematic, particularly when medical care is treated as a means to achieving the primary goal of evangelizing; tying services to prayer and preaching are potentially coercive and may denigrate the beliefs of others or even exclude some people (pp. 30, 66). Loewenberg (2009), Rodrigues-Lebrón & Rodriquez-Vasquez. (2011), and Vaughn (1991) agree that medical volunteering through religious organizations has a somewhat troubling history and a legacy that has been associated with colonial conquest and the imposition of Western institutions and values in other parts of the world (as cited in Lasker, 2016, p. 30). Kuperus & Hoksbergen (2016) discuss anti-colonialism arguments that are critical of STMs, noting that it is worth asking, as many secular critics do, how many of our modern efforts may be a new form of colonialism as STMs may attempt to civilize "backward peoples" (pp. 28-29). Doctrinal and cultural dissension can adversely affect STMs.

Restrictive and persecution situations. Historically, missionary books have often contained elements of persecution and risk. Richardson (1976) tells of the Sawi people of Netherlands New Guinea who were living in the Stone Age and, until 1962, were isolated from all but the nearby tribes. Upon receiving a missionary assignment to the Sawi, Richardson was told by previous missionaries that

> You may be called upon to make the first advance . . . where people are a law unto themselves and where savagery is a way of life . . . to do battle with the prince of darkness, who, having held these hundreds of tribes captive these many thousands of years, is not about to give them up without a fight! (p. 80)

Likewise, Shetler & Purvis (1992) spoke of a tribe in the Philippines, the Balangaos, who listened to spirits who often took the Balangaos' children or crops. The spirits would speak through a medium to explain that the sacrifice had been inadequate and one couple lost six of their twelve children—despite trying to meet every demand the spirits made (pp. 47-48). Both of these examples show what Richardson (1976) calls redemptive analogies, which are

> God's keys to man's cultures, and are the New Testament-approved approach to cross-cultural evangelism . . . redemptive analogies stand out in the legends and records of the past: Olenos the Sinbearer; Balder the Innocent, hounded to his death, yet destined to rule the new world; Socrates' *Righteous Man*: the unknown god of the Athenians, an analogy appropriated by the apostle Paul; The Logos, appropriated by the apostle John; the sacrificial lamb of the Hebrews, appropriated by both John the Baptist and Paul . . . How many more are yet waiting to be supplanted by Christ, that they may then fade from sight behind the brilliance of His glory, having fulfilled their God-ordained purpose? Only those who go and search will find them. (p. 288)

STMs can often break through the misconception of false beliefs. Many current countries have restrictions on sharing Christian beliefs, with threats of fines, jail, or harm to the local missionaries. Local hosts may inform the visiting STM teams of political or cultural faux pas or restrictions that must be avoided. Lasker (2016) agrees that many of these countries do not admit Christian missionaries so organizations have taken to gaining creative access, using medical care as an entrée (p. 29). Utilizing professional skills, STMs endeavor to cross barriers and open doors for the Gospel. Beyda (2015) advocated clinician sensitivity to patients' values and awareness of their religious beliefs or lack thereof (p. 41). These constraints may unnerve some STM participants as socio-political or religious environments may appear risky.

Livermore (2006) demonstrates that more Christians have been martyred for their faith in this century than in the previous nineteen centuries combined and that persecution is especially prevalent for Christians living in the remnant Communist countries and the Islamic world (p. 34). An editorial (Gazette, 2019) on Christian persecution stated:

> Just as Americans were woefully ill-informed of Hitler's mass killings, they know little about the mounting slaughter of Christians . . . The British report, just like a recent report by the U.S. government, found Christians are the most persecuted demographic . . . Christians suffer 80% of the global totality of religious persecution. Pew research found Christian harassment and persecution widespread in 144 countries, making Christians the world's "most widely targeted" sectarian demographic. World Watch List 2019 documents persecution affecting 245 million Christians . . . Western media hear "Christian" and think of entitled white Americans and Europeans. The millions suffering torture, murder, imprisonment, and rape are mostly poor nonwhites with minority

> religious identities in regions throughout Africa, the Middle East, the far East, Asia, and South America. (p. D2)

Tucker (2004) noted that missiologist and theologian, Newbigin, after his return to England from mission work in India, stated that England had become a foreign mission field in his absence where "a cold contempt for the Gospel which is harder to face than the opposition . . . this very tough form of paganism is the greatest intellectual and practical task facing the Church" (p. 456). Persecution in the world is a concern that STM Christians face.

Disturbing sin and evil awareness. Volunteers are often overwhelmed with spiritual wrongs that may seem accentuated in developing countries. Via & Via (2012) shared several stories of difficult situations, stating

> I share these events . . . not to create fear or to sound sensational . . . as a reminder that we are involved in a spiritual battle for the souls of humanity. We are "light-bearers" shining the light of Jesus Christ into darkened areas of our world. God's glorious light dispels the darkness but also stirs up the Prince of Darkness as we invade his territory. When the apostle Paul was proclaiming the gospel to the people of Corinth he said, "For a great and effective door has opened to me, and there are many adversaries" (I Cor. 16:9). (p. 69; Joannes, 2018)

STMs can bring religious ambiguities that are difficult to resolve. Mack & Stiles (2000) recall a letter they wrote to their home, prayer team from the STM site that depicted poverty, ignorance, disease, war crimes, ethnic hatred and racism, murder, and genocide—all in the first half of their first letter, although the last half spoke of the good that had come during the STM because of God's interventions (p. 108). Howell (2012) commented on a STM participant who described how heart-wrenching her STM experience had been, even while expressing some disgust with the "primitive church" with which her STM group worked (p. 164).

Meyer & Meyer (2013) relate stories of non-Christian populations that are difficult to influence, including a Muslim family who told their children that the white, Christians would come to boil them in oil and eat them if they disobeyed (Vol. 1, p. 4). The Voodoo challenges of

Haiti were unsettling as faith-based orphanages abused children and there were indications of the presence of generational curses due to broken covenants, defilements, bloodshed, immorality, idolatry and other challenges (Meyer & Meyer, 2013, Vol. II, p. 165). In Egypt and similar-belief countries, genital mutilation of young girls can be as high as 96 percent and corruption sometimes makes it difficult to help others in need because the authorities look to assign blame and jail anyone, especially those who might have money, as the Egyptian system appears to work on bribes (Meyer & Meyer, 2013, Vol. II, pp. 85, 87). So many developing countries bring predicaments with corruption at all levels of the government, without legal recourse, and espouse religious traditions that place harsh demands on people and bring persecution to outside groups. This is often frustrating and depressing for those from industrialized countries to witness on STMs, although there are elements of sin, evil, and injustice in all societies.

McDougall (2012) also addressed corruption, stating:

> Of all the places I have traveled to, one place is the most dangerous, troubled, destroyed, depressed, and needy place . . . At every airport, we were met with huge difficulties, but by far the biggest one was the corruption of most airport staff and military personnel . . . The human suffering . . . is terrible and is not talked about enough in our Western world. Every day people are disappearing, the rape of women is common, and children are being forced . . . into becoming child soldiers. (p. 28)

In developing countries, it is easy to feel distressed and burdened by the under-resourced Christians where, as Jenkins (2002) notes, "the 'typical' Christians in the world . . . are young, nonwhite, poor, theologically conservative, and female" (p. 2). Mack & Stiles (2000) believe that STMs may serve as a wakeup call to the injustices in the world which can bring defeat on STMs as this overwhelming avalanche of wrong can bring participants into a state of hopelessness and despair (p. 108). These concerns often do discourage and bewilder STM volunteers.

Intellectual Benefits of Short-Term Missions

Cultural and travel adventures. The holistic benefits of adventurous travel are noted by the German philosopher Count Hermann von Keyserling who maintains that the shortest path to oneself is around the world, where individuals encounter novel and unfamiliar experiences that force them to constantly adjust how they think, feel, and act and requires openness to change (as cited in Sampson, 2011, p. 155). St. Augustine alleges that "The world is a book, and those who do not travel read only a page" and Francis Bacon credits "Travel, in the younger sort, as a part of education: in the elder, a part of experience" (as cited by CDS Members, 2015, p. 20). Bennis (2009) claims that to become leaders, people must know the world as well as they know themselves since travel is another kind of revelatory learning; perspectives change as life is viewed differently in other countries (pp. 68, 83; Lasker, 2016, p. 81).

Other authors have insight into the specific benefits of STM travel. Sinha (2014) discerns that a person becomes a better individual with a balanced view of life and people (p. 31) and Salas-Provance et al. (2014) desire the expanded learning across borders that brings intellectual growth (p. 68; Bimstein et al., 2008; Frost, 2015; Meyer, 2014). Richter (2008) encourages STM participants to cultivate mindfulness as they journey (p. 18) and CDS Members (2015) relish STMs adventure and wonderment as they are enriched by the beauty and the grandeur of the world, the diversity of its people where STM teams live with, work with and enjoy the people in their environment—free from the fetters of tourism (p. 20). Lasker (2016) encourages STM travel where the volunteers see what the real world is like, giving them an exciting exposure that does not focus on museums and gift shops but focuses on poor people and how they live (p. 65).

When combining travel and dentistry, Ivanoff et al. (2017) pronounce that their research suggests that dental students would value international exchanges, which may enhance students' knowledge and self-awareness related to cultural competence (p. 107; Lasker, 2016, p. 35).

Damazo, a dentist of many STMs, chose Kenya because there is a great need for dental care, but also because it is such a beautiful place (as cited by Crozier, 2014, p. 20). Bloomer explained that he dedicates much of his life to the dentally under-served because it is an opportunity to see the world and to know people (as cited by Burger, 2016, p. 18). Serio (2009) concurs that dental STMs promote traveling to new places, meeting new people, and doing something worthwhile at the same time (p. 11).

STMs bring cross-cultural exchanges that may benefit all parties involved. Hiebert (2008) recognizes that seeing the world through two sets of eyes relativizes both and makes it easier for people to see the deep changes that are needed in their worldview as well as in those of the people served (pp. 321-322; Serio, 2009). Overholt (2013) demonstrates the importance of encountering other cultures as STM participants recognize the existence of their own culture as distinct—before that, people simply assume that their way of life and their interpretative horizons are universal (p. 93). Serio (2009) believes that after the terrorism events of September 9, 2011, it was important to educate the world about what Americans are truly like (pp. 6, 11).

Dickson & Dickson (2005/2006) hope STMs teach respect for diversity, where volunteers should strive to appreciate different realities since being fixed on single ways of doing things prevents creativity (p. 868; Brown, 2005; Bimstein et al., 2008; Caldron et al., 2015). Sanders (2007) proposes that leadership with diplomacy is the ability to manage delicate situations, especially involving people from different cultures (p. 71). There is often the challenge on STMs of being culturally-sensitive and Saint (2001) cautions that in North America, people may be so isolated that they make the additional mistake of thinking that their way of doing things is the best—these assumptions are often wrong and work against what God wants (p. 83).

Lasker (2016) interprets the benefits of international and intercultural awareness, including a reduction in prejudice (pp. 7, 98, 101) and Whipps comments that although people may have different voices, they are all singing the same song (as cited by Burger, 2016, p. 20). Johnson (2003) asserts that STMs often take students where the reality of evil is stark and where suffering is obvious and they learn compassion for people they had ignored or disdained (p. 15; Barna, 2018, p. 145). Mack & Stiles (2000) determine that people learn skills on STMs that last a lifetime as they gain greater awareness and concern for people who are different. Racist attitudes that were once seen as normal are challenged (p. 51). Trinitapoli & Vaisey (2009) inform that volunteering in a cross-cultural experience provides contact with individuals different from one's self and that the STM may contribute to either reducing or intensifying discriminatory attitudes related to race, ethnicity, and religion (p. 14). Bimstein et al. (2008) note that enhanced cultural competencies are reported by dental student participants as they provide adequate care to patients with diverse values, beliefs, and behaviors (p. 1493) and Ivanoff et al. (2017) discuss the importance of international volunteering for training culturally-competent, dental graduates who can practice effectively in multicultural environments (pp. 107-108). Sinha (2014) thinks travel volunteerism is beneficial because multicultural teams are often now the norm (p. 31).

STMs teach diverse aspects of cultural intelligence and social behaviors that are helpful in all of life's social relationships. CDS Members (2015) discuss cross-cultural, perceptual differences of time and scheduling, individuality vs. relational distinctions, high-context (much history together) or low-context (contact of shorter duration) issues, power distance disparities, physical proximity variance, privacy issues, dissimilar cleanliness standards, social stratification dissonance and more (pp. 178-201; Howell, 2012; Overholt, 2013; Via & Via, 2012).

Mission and career experience. Overholt (2013) advises that STM teams must do their homework before going on STMs to make a long-term impact (p. 59). Many sources have checklists for accomplishing this task (Johnson, 2003; Mack & Stiles, 2000; CDS Members, 2015; Overholt, 2013; Serio, 2009; Stevens, 2012). Saint (2001) determines that STMs provide learning as they take "common, ordinary men and women of uncommon commitment" (p. 173) and Mascone (2017) attests that volunteering helps people learn new ways of doing things (p. 3).

McDougall (2012) believes STMs may spring-board participants to long-term commitments (p. 13; CDS Members, 2015). Receiving a "call" in the spiritual sense is discussed by Howell (2012) who asserts that STMs produce stronger support for long-term missions (p. 200). Pettit (2008) identifies lifetime decisions promoted by STMs, stating that the student who is truly called to the mission field will find a mission experience challenging, but confirming and fulfilling, whereas the student who is not called to the mission field will only feel frustrated (p. 212). Lasker (2016) articulates that STMs may be the impetus for a choice later to pursue service or international careers" (p. 98) and Mascone (2017) relates that volunteering helps to explore new occupations or industries with an impact on career choice and growth (p. 3; Lee, 2018).

Spear (2015) purports that volunteering contributes to the stability and growth of the community and for networking with peers with common professional backgrounds and interests (p. 105; Lasker, 2016). Withers et al. (2012) examine the positive effects volunteering brings to career-related benefits, camaraderie with colleagues, and the opportunity to network with professors and other professionals in the field (p. 378). Lasker (2016) deems that STMs give credentials for careers and build leadership skills among employees (pp. 3, 65).

Many of the STMs are designed to help dental students achieve career goals and Lasker (2016) acknowledges that resumé building is one reason people go on STMs (p. 93; Withers et

al., 2012; Spear, 2015). Spear (2015) believes that volunteering can provide opportunities for career exploration and advancement (p. 106) and Withers et al. (2012) see STMs as strengthening graduate or dental school applications (p. 378; Broderick, 2007; Lasker, 2016).

Educational and mentorship interchange. STMs bring lifelong learning to participants as Seeberger (2018) proposes that doing good shall be not only for the heart but also for the mind (p. 6). Musick & Wilson (2008) state that education has been described as the most consistent, and often strongest, predictor of volunteering, as it promotes the acquisition of civic skills, social connections, civic values and social integration (p. 19). Son & Wilson (2011) conclude that people who stayed in school longer were more likely to volunteer (p. 646).

Spear (2015) emphasizes that volunteering provides the opportunity to develop new skills as it exposes people to trends and best practices within their specialty while providing leadership training and experience (pp. 105-106; Mascone, 2017). STMs promote many chances to exchange skills and learning between interested parties as Wilson (2012) documents that time spent volunteering enhances mastery experiences (p. 198). Sinha (2014) believes that volunteerism hands-on experience that becomes an integral part of the volunteer's learning process and personality (p. 31) and Serio (2009), a dentist, sees volunteering as the identification of a problem and the desire to participate in a solution (p. 6). Dickson & Dickson (2005/2006) suggest an openness to change, inquisitiveness, and receptivity to learning (p. 868) and, on STMs, Beyda (2016) valued the education of new medical ideas (pp. 89, 91).

Anthony & Benson (2003) recommend the programs developed by missionary organization for short-term professionals who can provide only a few weeks of service (p. 225) and Mack & Stiles (2000) advise STM team members to use their professional skills to best assist the local population (p. 114). Serio (2009) says dental STMs are for sharing knowledge

and skills (p. 12) and Salas-Provance et al. (2014) promote the sharing of health education that improves and extends lives (p. 68; Wearing & McGee, 2013). Frost (2015) endorses the positive impact that an individual can have on oral health care available to patients in developing countries (p. 724). On STMs, Dickson & Dickson (2005/2006) desire a wider analysis of issues affecting oral health (p. 868) and Caldron et al. (2015) believe STMs teach awareness of global healthcare (p. 8; Seymour et al., 2013).

Educating and mentoring other people (i.e. indigenous nationals, dentists uncomfortable with austere settings, and dental students) is an important role for dental STMs. Stone & Olson (2016) note that mentorship and on-site coaching have been described as indispensable for STMs (p. 242; Lahey, 2012). Some dental, STM organizations take dental personnel to teach indigenous pastors and Christian individuals how to extract teeth and to provide hygiene where there are no dentists (CDS Members, 2015, pp. 116-118). It gives income to the Christ-followers and becomes a ministry that opens doors to those with dental and spiritual needs. Serio (2009) urged dental professionals to take an interest in sharing skills and knowledge with counterparts in practice or academic settings (p. 11).

Griffin (2009) recognizes that STMs are beneficial for teaching medical and dental students because there are normally plenty of patients, less record-keeping, and more hands-on treatment with a seasoned professional nearby for back-up if the situation extends beyond the student's comfort zone (pp. 21-22). With the desperate need for care globally, patients will often be as grateful for the opportunity to see a student as they would a licensed doctor. Martiniuk (2012) wants professional schools to engage in or facilitate a transfer of skills and knowledge to local counterparts (p. 1; Dowell & Merrylees, 2009). Serio (2019) conducted an unpublished research instrument of practicing dentists where

> 41.9% of the respondents had some international volunteer experience. Fully 99.6% of these dentists reported that they had a positive experience, and 98.8% stated that they would recommend this activity to their colleagues. A total of 22% of the respondents indicated that they had participated in such trips while attending school. These data correspond with data from Lambert et al. (2017, pp. 366-372) which reported that approximately 22% of dental students had participated in such trips while attending school. Woodmansey et al. (2016, pp. 135-139) showed that 65% of dental schools offered international experiences. (pp. 1-2; Stone & Olson, 2016, p. 238)

Wilson (2012) associates a desire to volunteer as part of the maturation process and desires to work with young people by passing on knowledge in their field (p. 190). This is the concept of "generativity," a term coined by Erikson (1982) in the 1950s that denotes concern for guiding members of the next generation. Withers et al. (2012) recommend that students go on STMs to see real-life cases, away from an academic setting, and have the opportunity to put into practice the theoretical knowledge they learned at school (p. 378). Ratliff, a dental student thought his learning on STMs made a difference in changing people's lives, and he promoted "taking a leap of faith and being of service to others" (as cited in Burger, 2017, p. 6).

Bimstein et al. (2008) researched dental students' perceptions of humanitarian trips to Latin America, finding that skill development, educational opportunity, and philanthropy were the most important motivators for the trips, along with increased knowledge, self-confidence, public health awareness, and clinical experience in advance of their peers (p. 1500). Martiniuk et al. (2012) believe STMs allow doctors to hone skills and see conditions that they might not otherwise encounter (p. 5). Wilson (2012) also documented that high schools in the U.S. are mandating volunteer work as a requirement for graduation since these programs improve attitudes toward volunteer work and encourage later volunteering (p. 189; Lasker, 2016; Weinstein & Ryan, 2010).

Dental residents on STMs cite the advantages of learning from dentists within different specialties and obtaining training that was not normally obtained in dental school (Withers et al.,

2012, p. 378). Ivanoff et al. (2017) demonstrate that cultural diversity was seen as an important component of dental education and that STM training provided preparation for understanding the oral health care needs of disparate peoples (p. 107; Lasker, 2016). Ivanoff et al. (2017) discovered that among students "87.9% agreed that volunteerism and philanthropy are important qualities of a well-rounded, compassionate dentist, but only 36.5% felt that their dental education supported these behaviors" (p, 107).

Many dental professionals take dental or hygiene students on STM trips to allow them to experience volunteering, including CDS members who take over 500 pre-dental, dental, and hygiene students annually. CDS Members (2015) include information on partnering with the students' school administrators, limiting the students' treatment repertoire to their ability level, delegating leadership duties and fundraising issues, and dealing with substance use and unruliness with reasonable codes of conduct (pp. 121-128).

Asa (2011) notes that a significant part of the dental mission trip included preventive education about proper, dental, home care (p. 28). Many other dental teams emphasize prevention, defying concerns that Martiniuk et al. (2012) express about medical missions often treating rather than preventing conditions (p. 6).

Intellectual Detractors of Short-Term Missions

Dealing with planning and change. Although the CDS has perfected dental, portable, packing methods, many dentists feel overwhelmed by the task that Stone & Olson (2016) say involves "incredible complexity, challenge, and reward: both for those who serve and those who are served" (p. 243). There is much to learn when first confronting the details involved in planning and performing STMs. Dental group issues involve the items needed, the recruitment of the correct number of volunteers, and last-minute changes and cancellations. Most leaders,

including Via & Via (2012), acknowledge that taking on a STM project "is a massive task. There are numerous administrative hurdles and a thousand details to organize and manage" (p. 49). It can be difficult to align the host expectations with the dental capabilities, and it is important to fit in with the national ministry, stay flexible, and constantly readjust to different thought patterns and cultural mores. O'Callaghan (2012) summarizes:

> The provision of dental care is vastly different than offering primary medical care. Adding a dentist to a mission team is much more complex than adding another primary care medical provider. In an international setting with minimal resources, the provision of dental services requires additional, extensive planning, materials, and equipment not required by medical providers. These preparations can include disinfection and sterilization . . . provision of a generator with adequate voltage regulation, and adequate supplies, including needed equipment and armamentarium to provide the planned range of dental services . . . organizing and executing a dental STM requires a significant amount of work. (pp. 349, 352)

Lasker (2016) emphasizes that even with the best preparation, trips may not work out as planned and may involve myriad details and a steep learning curve (pp. 59, 67, 87, 122). Vrasti (2013) argues that volunteer programs are often poorly structured and unaccountable (as cited in Occhipinti, 2016, p. 259). Jordan, a clinician in Louisiana who focuses on the rural, under-served population, says volunteering has some of the same challenges as overseas mission work, including "planning, soliciting financial support, recruiting volunteers, and using bare-bones equipment" (as cited in Rehan, 2018, p. 13).

Richter (2008) wrote of concerns on STMs where groups are plagued by health problems, debts, strained relationships, and physical safety and comfort zone issues (pp. 29, 43, 45). CDS Members (2015) remind group members to be understanding and encouraging: "Even people who are expected to be in complete charge of their composure—like leaders, dentists, or host national overseers—can be having a tough day. Team members need to be as supportive as possible" (p. 116). The responsibilities of dental STMs can be daunting for many participants.

Personal and aggrandizement motives. Those contributing to STMs may tend to feel self-satisfied or smug in their efforts and Withers et al. (2012) notice that much of the volunteering literature focuses on the individual, egocentric benefits to the volunteer, either perceived or tangible (p. 375). Lasker (2016) states that some people may utilize STMs to gain bragging rights, see important benefits to their reputation, be self-serving, and add arrogance to being autocratic (pp. 3, 67, 122; Suchdev et al., 2007). Sometimes team members are publicly acknowledged which adds to their sense of pride and may irritate others. Brown (2005) admits that STMs bring status and prestige motivations, such as the desire for recognition (p. 482) and Miller (2016) thought that STM teams often tend to give off an aura of arrogance (p. 37). Pride can be a subtle temptation in any STM activity and Via & Via (2012) advise STM members to void an egotistical attitude (p. 40). Guinness (2003) agrees that "Pride is the first and worst sin, so grace is most amazing when it embraces the fruits of pride" (p. 118). Hoke & Taylor (1999) endorse that the proper stance for a Christ-follower is, and always has been that of a humble servant (p. 32). Prideful reasons for STM involvement need evaluation.

Lasker (2016) suggests that students go on STMs for personal status, to separate themselves from the pack, and to gain career advantages, while pressuring institutions to create STM opportunities and to subsidize student involvement (pp. 35, 37). Mascone (2017) agreed that volunteering can help team members stand out from the crowd but was concerned about those with "notice me and self-aggrandizement motives" (p. 3).

Sauter has led over 30 STMs and warns that participants may come in like heroes throwing around money and resources: "Then we leave. And the world we left is saying 'The church here is no good, but the Americans are amazing.' We successfully exalt and edify ourselves" (as cited in Thomas, 2017, p. 56). Lee (2018) documents studies where volunteering

that is driven less by values and conscience and more by the demands of the social position of the volunteer are less rewarding (p. 6; Konrath et al., 2011). STM participants must guard against self-centered motives and judgmentalism involved in service to other people.

Dental provider inexperience controversies. There can be concerns with unseasoned learners performing dental care. The dental mission field is often a training ground to learn dental skills and to get experience free from the restrictions imposed in the dental school. Griffin (2009) believes that dental students often pull more teeth on a week-long mission trip than they do in their four years of dental school (p. 21). Indigenous People's Technology and Education Center (I-TEC) and mPower Approach train nationals and certify and equip them to remove teeth with only one week of dental training. Ancillary dental helpers on STMs are often family members, friends, or national helpers whose only experience is that obtained during a mission. Duties may include sterilizing, dental assisting, giving anesthesia, diagnosing, and even the extraction of teeth. All of these scenarios using inexperienced workers bring considerations.

A research instrument conducted by the ADA in 2009 indicated that nearly half of all dental schools offer international volunteer opportunities to their students (Seymour et al., 2013, p. 1252). Lasker (2016) discussed issues concerning untrained workers who are allowed to work beyond their training with free access to patients and to children given to people without proper credentials or screening (pp. 16, 33, 66). Martiniuk et al. (2012) worry about trainee doctoral students without supervision performing unfamiliar procedures, although this may also be the best potential care that exists for a patient in a particular location, at a particular time (p. 5). Many universities use the standard that if the student is not ready to do a procedure in the U. S., they should not do it on the mission field (as cited in Lasker, 2016, p. 40; O'Callaghan, 2012).

These are all detractive issues that must be addressed on dental STMs and often may deter professional dentists from involvement if they are worried about incompetent practitioners.

Physical Benefits of Short-Term Missions

Improvement for health and aging. There has been great interest in the benefits of volunteerism on the health and aging of participants. Hoekema (1986) notes that "The Bible never denigrates the human body as a necessary source of evil, but describes it as an aspect of God's good creation, which must be used in God's service" (p. 206).

Jenkinson et al. (2013) document that volunteering is associated with increased health and wellbeing, improved ability to carry out activities of daily living, better health coping mechanisms, adoption of healthy lifestyles, and improved quality of life (p. 2; McDougle et al., 2014; Stevens, 2012; Stukas et al., 2016a). Health dividends occur for volunteers and Wilson (2012) is convinced that volunteering buffers against stress and lowers levels of morbidity and mortality (p. 198). Jenkinson et al. (2013) discovered that volunteering is associated with increased longevity (p. 2; Kim & Konrath, 2016; Levine & Auster, 2019) and Binder (2015) notices that volunteers tend to be healthier (p. 874; Post, 2005). Detollenaere et al. (2017) found that volunteers have a health score which is statistically higher than those who do not volunteer concerning self-rated health, functional limitations, health behaviors, depression, and mortality (pp. 1, 9; Musick & Wilson, 2003).

Broderick (2007) believes that the types of people who volunteer know they are going into more austere conditions and they tend to be those who are fit and more vigorous (p. 27). Hudson (2015) asserts that military personnel are equipped for STMs due to their ability to work in harsh and dangerous environments and their understanding of different cultures (p. 1). Kim & Konrath (2016) suggest that volunteers report engaging in fewer health risk behaviors (e.g.,

smoking, drinking, sedentary lifestyles) and those positive actions are associated with stronger immune systems, cardiovascular health, and lower mortality risk (p. 123; Piliavan, 2007). Wilson (2012) notes an excellent longitudinal study that found that people who volunteer a hundred hours a year were less likely to be hypertensive (p. 200; Chen, 2016). Kim & Konrath (2016) discovered that with larger social networks volunteers would more likely hear about healthy behaviors such as getting preventive health screenings (p. 124).

McDougle et al. (2014) reinforce that volunteers who engaged in more public forms of religiosity reported significantly better physical and mental health than non-volunteers who engaged in the same forms of religiosity (p. 337) and often Christian people turn to volunteerism when they retire. Forbes & Topazian (2000) cite a trend in recent years for older adults to serve after retirement or take early retirement, to give back as second-career missionaries (p. 76). Anthony & Benson (2003) also recommend that retired adults share their years of wisdom and experience on mission fields (p. 225; Lasker, 2016; von Bonsdorrff & Rantanen, 2011). Davis, a dentist, advised “Do what you can while you still can” (as cited in Burger, 2017, p. 20) and Damazo, another dentist, agreed: “I want my three daughters to know that the years between 60 and 80 can be your most productive years. My mother always said, ‘you retire when they close the lid’” (as cited in Crozier, 2014, p. 20).

Service to other people may delay or affect aging in positive ways. Kim & Konrath (2016) present volunteering that may be an ideal, low-cost strategy to help improve health among older adults, as it buffers against a low sense of purpose in life, especially among older adults who lack social positions in society or role-identities (p. 123). Open (2016) substantiated that volunteering seems to confer greater benefits for general well-being in middle and older age than earlier in life: “The link between volunteering and good mental health and emotional well-

being became apparent at about age 40 and continued beyond age 80" (p. 1). Infurna et al. (2016) state that volunteering is associated with greater well-being and better physical health in later life and that after adjusting for known risk factors for mortality, "volunteering reduced the risk of mortality by 24% on average" (p. 2263). McDougle et al. (2014) suggest

> that physicians should begin prescribing volunteering to promote healthy aging in older adults and produced research that suggests that volunteering helps people preserve their memory and their ability to think and make decisions as they age. It has been established in these studies that volunteering promotes good health and positive aging outcomes. (p. 337; Infurna, 2016; Okun & Schultz, 2003)

Safe and comfortable missions. It is entirely possible to outfit a portable, dental clinic as Meyer & Eikenberg (2002) emphasize that with the current availability of portable dental equipment, quality dentistry can be transported and accomplished in any environment (p. 419). Overseas, dental teams go with established ministries and knowledgeable local hosts so the risks are minimal and safety is carefully monitored by Christian, national people. O'Callaghan (2012) insists that it is important that STMs be properly organized and executed so that appropriate care is rendered safely for both the patients and the providers (p. 349). Using proper, lightweight, portable equipment makes it possible to position the dental workers and patients ergonomically with dental chairs and stools, dependable dental operating units, adequate lighting, and sterilization (CDS Members, 2015, pp. 39-41, 56, 98-101). Dental x-rays are usually not required for the emergent care provided on STMs but can be accomplished with portable hand-held units utilizing computer-generated films or self-developing film packets (Meyer & Meyer, 2014, p. 5).

Suggestions for effective STMs also include these from CDS Members (2015): scheduling STMs when the weather is most favorable and politically calm (pp. 25-26); working with national people who have obtained permission for the dentistry and know the area and local politics (pp. 132-139); accessing safe, wholesome food and clean, drinking water, along with

knowing dietary restrictions for team members; reasonable accommodations so the group will stay rested and protected; attention paid to transportation safety, and evacuation insurance and understanding local health concerns (pp. 160-177; Stoddart & Rogerson, 2004). It is best if only the dentists handle needles and sharps (O'Callaghan, 2012, p. 350) and proper immunizations and appropriate care of contaminated waste are vital (CDS Members, 2015, pp. 103-105, 163).

Providing anesthesia and pain relief helps patients gain confidence and trust in the dental team (Meyer & Meyer, 2014, pp. 9, 12). Interpreters are vital to the success of the patient's dental experience and the efficiency of the operation. Each dental practitioner needs a dedicated, conscientious, congenial, and compassionate person to reassure each patient and to communicate the patients' needs and expectations (CDS Members, 2015, pp. 87-90).

Therapeutic touch impacts ministry. Many non-medical STM leaders and missionaries have to be extremely careful when physically touching other people. Dental and medical providers, however, are instantly in people's space in an acceptable way. Boyko (2018) voices that "more than relieving suffering, the people feel God's love through our hands and they know that people from the other side of the globe care about them and their health" (p. 26). CDS Members (2015) have seen that touch is a universal language of love, and it can instantly convey warmth as those people who come for dentistry have to put their fear aside, step forward in faith, and show a willingness to let the volunteer help them (p. 10; Meyer & Meyer, 2003).

Beyda (2015) worries that medical technology has lost the richness that comes with human contact and that there is a need for a balance between "high tech and high touch" (pp. 26, 76, 89). Lingenfelter (2008) discerns that kingdom work includes both delivery of good news and a simultaneous, healing touch (p. 36). Meyer thanked the ADA for applauding dentists who

use their own time, talents, resources, and energies to help the less fortunate here and abroad (as cited in Crozier, 2014, p. 1).

Dental personnel enjoy satisfaction and gratitude after treating patients and often say they work for the blessings and hugs (Asa, 2011; Botko, 2018; Burger, 2017; Fritz et al., 2018; Withers et al., 2012). Meyer & Meyer (1998) recognized that people live with chronic dental pain from broken, decayed, abscessed teeth with little hope of relief, and, after treatment, the gratitude given is valued (p. 29; Asa, 2011, Call, 2010). Jordan said that the best payment is shown by the appreciation of the patient (as cited in Rehan, 2018, p. 17) and Vostatek (2009) reminisces: "Once you see the sheer relief on a child's face, you know this is bigger than you. It's something you'll do again and again" (p. 3). Serio (2009) provided a thank you note sent to a dental volunteer: "We cannot pay you with money . . . we say 'thank you' and pray . . . and ask Him to bless you now and forever . . . our smiles will always be our most valuable treasure, and only you have made it possible" (p. 43).

Solheim (2007) exults that when dentists get a hug from a mom after caring for her child or a handshake from the village elder for coming to help his community, they soon forget about all the blood, sweat, and tears of the preparations (p. 387). Asa (2011) articulates it well: "There, under a tin shed with a hog sleeping in the dirt, I extracted the painful teeth. She hugged me and held my hand. It does not get any better than that" (p. 27; Levine & Auster, 2019). Meyer & Eikenberg (2002) encourage others to set achievable goals and embark on an adventure to help others, as the rewards and personal accomplishments are beyond description (p. 419). These expressions of appreciation are a special benefit to STM dental professionals.

Physical Detractors of Short-Term Missions

Challenges, constraints, risks, discomforts. There are many challenges to STMs and Lasker (2016) includes food cautions, bad weather, poor road conditions, elections or territory battles, the departure of key personnel, delays of medications in customs and importing medications, and technical problems—electricity/generators/fuel (p. 59; Bimstein et al., 2008). Stone & Olson (2016) add the considerations of volunteer safety, vaccinations, travel, a basic understanding of local culture, health systems, epidemiology, resource-limited settings, and principles of health equity (p. 241). Withers et al. (2012) discuss organizational rules and inconveniences (p. 376).

Lamb (2012) recommends familiarity with the jungle animals, parasites, and diseases such as malaria, and yellow and dengue fever (as cited in Crozier, 2012, p. 12) and Bimstein et al. (2008) mentions health risks that include exposure to infectious diseases (p. 1493).

Many STM team members have difficulty tolerating the lack of amenities and Bimstein et al. (2008) noted the lack of creature comforts on the trips where participants reported being hot, sick, and sometimes encountering problems with housing (p. 1501; Whilden, 1992). Lasker (2016) quotes a national host, who decried high maintenance volunteers that do not want to lose their comfort when they are on STMs; the host concluded that “Volunteering isn’t romantic. It’s dirty. And if you can’t stand to be dirty and dusty and uncomfortable, then you should just go to Montego Bay” (pp. 119, 123). Archer (2014) warned against the STM discomforts of early mornings, late nights, indigestion, mild heatstroke, crankiness, fatigue, physical tolls, and fermented beans that would be considered hazardous waste back home (p. 101). Richter (2008) acknowledged that travel away from home takes team members out of their comfort zones and challenges their sense of entitlement (p. 29).

Overholt (2013) realized that “Sometimes we don’t appreciate what we have until it is taken away: no electricity, flush toilets, or clean water, and the average family sleeps, together, on wooden pallets for a bed” (p. 93). Damazo told Crozier (2014) that he could be his most productive when comfortable, so no matter what sacrifices he made to provide free dentistry to the people of Africa, he was happy to know he had a commodious place to sleep and a nice meal at the end of the day (p. 20). Binder (2017) told of his STM where “the accommodations were spartan, to say the least. Basic food was provided, but I also brought many boxes of nutrition bars to snack on and share with the local people” (p. 12). Asa (2011) realistically advised that STM participants select a project based on their comfort level: “Some people need a nice hotel while others are backpackers. Some are picky eaters or have a religious affiliation. You need to figure out who you are. The third world is different from the first world and comes in many flavors” (p. 25; Lasker, 2016). The loss of creature comforts may be a detractor for STM dentists, although Via & Via (2012) remind that God has called us to take the gospel to all and he did not exclude from the Great Commission areas that may be considered dangerous (p. 13).

Evaluating myriad STM costs. The expenses associated with STMs can be deterring. Lasker (2016) said that funding was the top challenge cited, including additional funds for equipment, supplies, and unexpected costs (p. 59). Martiniuk et al. (2012) believe that many people question if medical missions are an appropriate allocation of already scarce resources, both financial and human (p. 4). Lasker (2016) quoted host nationals’ opinions that teams bring no financial disadvantages and only advantages with no extra expenses (p. 145). Some dentists enjoy serving and traveling in inexpensive countries, like Damazo who said, “If the truth be told, I’m a cheapskate. I like to get my money’s worth” (as cited by Crozier, 2014, p. 20).

The cost of STMs is often a discouraging factor to potential STM members. Fulton (2018) says a STM can contribute substantially to student debts, noting that "in 1974, the cost of dental education was $20-30,000. Today in 2018, the cost has risen tenfold to $200,000-300,000" (p. 12; Bimstein et al., 2008). Dentists can be more monetarily challenged in today's economy than in previous decades and the financial costs of STMs often dissuade participants unless they can believe that the Lord will provide. Many missionaries in the past considered faith missions, where God provided without denominational backing. Taylor (1987) spoke of his father, Hudson Taylor in the mid-1800s, who endorsed faith as a sufficient financial basis for missionary undertakings (p. 117).

There are often concerns about disturbing the local economy by overpaying or upsetting national people. Shetler & Purvis (1992) listened to a local person who advised

> not to pay people for helping us learn the language. When we wanted to give people used clothing—and they needed it—he warned us not to do it. 'If you give things away, people will hate you because you'll never be able to distribute them equally. . . When we insisted on paying wages to get our airstrip built or our wooden floors polished, he set the price for us. If we paid too much, he explained we'd ruin the pay scale and everyone would be angry. (p. 42)

These thoughts bring financial items to digest and process cross-culturally and may detract dentists from STM participation because of the cost complications.

Enduring excess patient expectations. Almost everyone can benefit from dental services—even in developed countries—and dental need causes an overwhelming number of individuals wanting care which especially complicates triage decisions on STMs. The selection of patients to be seen and treated may become problematic (Stone & Olson, 2016, p. 239).

Hobdell (2007) explains that people in advanced countries take access to medical and dental care for granted, but for many people, lack of access to dental care is an everyday experience (p. 1433). Binder (2017) relates that in Haiti he discovered an endless unmet need for

dental treatment, as most of the patients seen had never received dental care (p. 12). Hall (2014) said, “Lines formed in the morning and we worked until sundown each day. The need for dental care was dire. . . we left frustrated and discouraged . . . We knew we must do more” (p. 23). Hall and her daughter and two friends eventually established a clinic at that location.

Jordan, a dentist, says, “It’s a trip, but it’s not a vacation. Be prepared to be worn out at the end of the day” (as cited in Rehan, 2018, p. 14). Griffin (2015) commiserated: “I cried because I was so incredibly inept . . . I could not even come close to providing even an ounce of relief to the enormous weight of the need” (p. 31). Wilson (2012) notes that volunteers may suffer from empathic over-arousal (p. 199) and Seung noticed that when so many patients were in line the street vendors showed up (as cited in Burger, 2017, p. 18). Asa (2011) agrees that

> it is folly to work at breakneck speed the first two days only to hit the wall and be ineffective from the third day onward . . . Once a local leader announced by megaphone that a dentist had arrived, hundreds of parents and children trekked to the site . . . crowd control was the order of the day. (p. 27)

Coleman instructed clinicians to be flexible on STMs and forget about their watches (as cited in Rehan, 2016, p. 14). Dental needs are often overwhelming, but by prioritizing treatment and focusing on the chief complaint, patients’ expectations can be aligned with the dental team’s capabilities (CDS Members, 2015, p. 50). Lasker (2016) supposes that STMs bring a sense of urgency and a greater sense of needing to make the time count as part of the American mentality (p. 66; Withers et al., 2012). A lack of control concerning the number of patients can be a distractor for the nurturing and efficiency-oriented, STM dentist.

Moral Benefits of Short-Term Missions

Purposeful, significant, moral duties. STM participants are often searching for significance in their lives. Pearcey (2004) opines that all people long for a sense that they are contributing to something larger than themselves, to a greater good, to God’s purposes in the

world (p. 346). Frankl (1963) voices that man's search for meaning is a primary force in humans' lives—the meaning of existence is not invented by people, but rather detected (pp. 154, 157). Guinness (2003) articulates similar desires:

> Out of more than a score of great civilizations in human history, modern Western civilization is the very first to have no agreed-on answer to the question of the purpose of life. . . Thus, more ignorance, confusion—and longing—surround this topic now than at almost any time in history . . . in material plenty, we have spiritual poverty. (pp. 3-4)

Son & Wilson (2011) found that frequently, churchgoers in the United States are not only more likely to believe that they have a moral duty to help others, but also that it is in their power to do so (p. 646; Musick & Wilson, 2008; Weinstein & Ryan, 2010). Withers et al. (2012) validate volunteers' desire for the opportunity to serve disadvantaged communities and the personal relevance of the mission (p. 374). Wilhoit (1991) relates that ministry for meaning works in conjunction with mission evangelism and social service—all of which can contribute to a person's sense of purpose (p. 17; Brown, 2005; Cheek, 2015; McDougle et al., 2014; Stukas et al., 2016b).

Many dentists follow their familial or church orientations towards volunteering. Wilson (2012) found that the roots of prosocial behavior are embedded in the family of origin and when parents volunteer, they are acting as role models for their children (p. 188; Withers et al., 2012). Kim & Jang (2017) add that early socialization in the family plays a pivotal role in the formation of religious and volunteering practices (p. 415).

Occhipinti (2016) sees that STM team members define themselves as moral agents in opposition to an image of the tourist as an amoral agent involved in a hedonistic experience (p. 266). Mostafanezhad (2013) suggests that participation in STMs has become an increasingly popular way for individuals to become international humanitarians (p. 323). Occhipinti (2016) contrasts the tourist who, in the eyes of the mission participant, only sees a sanitized,

Americanized version while the mission participant is embedded in the local culture "as a moral agent, with self-aspirations and self-realization as a moral being" (p. 263; Baptista, 2012). Muehlebach (2013) notes a global trend towards collective moral responsibility, an emerging concern for poverty, and an emphasis on humanitarianism and voluntarism as a "struggle to find a moral compass that shapes the understanding of relations between poverty and the market" (p. 455). Most STM volunteers would embrace Spear's (2015) discovery that STMs can foster actions towards making a moral impact (pp. 105-106; Okun et al., 2015).

Giving back to people. STMs are known for their attempts to reach out to others that are in need. The Preamble of the ADA Code states that dentists should "follow high ethical standards which have the benefit of the patient as their primary goal . . . dentists should share in providing advocacy to and care of the under-served" (American Dental Association, 2012). Damazo (2007) prefers to give back through action and by using his talents, rather than just writing checks; he believes that giving money is not nearly as personal as giving of his time as he removes pain (p. 381). Serio (2009) purports that STM volunteers have a desire to give something back to the world that has provided the volunteer with so many advantages (p. 11; Bimstein et al., 2008) and Richter (2008) acknowledges that STMs explicit purpose is to serve others (p. 11; Okun et al., 2015; Wilson, 2012). Whipps, a dentist, said that from his and his wife's perspective, true happiness will never be gained by the financial whims of people, while "true satisfaction will only be gained by learning how to give yourself away" (as cited by Burger, 2016, p. 20).

Bimstein et al. (2008) speak of STMs as pure practice, with the opportunity to do helpful dentistry without charging fees, extensive paperwork, and other administrative tasks (p. 1500). Withers et al. (2012) quoted one dentist as saying that he

> regarded STMs as less stressful than daily practice in California replete with annoyances and frustrations that included negotiating with insurance companies, the risk of being sued, scheduling, and many regulations. . . while he never compromised the quality of his work he actually enjoyed his volunteer work more because he was just able to do what he loved to do without worrying about any other details. (p. 378; Brown, 2005)

Malay (2017) comments that STMs play a restorative role for volunteers by reconnecting them with the altruistic values that steered them toward a health care career in the first place (p. 222; Martiniuk et al., 2012; Pezzella, 2006). STM dentists are gratified when they give quality care to patients who would not have access to treatment in their current world context. These patients have significant emotional reactions to dental disfigurement because the esthetic components have an impact on their self-esteem, their image, and even their career advancement. There are ecstatic feelings reflected by the patients and warm responses by the dental professionals who make such a difference by relieving dental flaws. Damazo (2007) recounted that "a Maasai warrior pleaded for new front teeth after a fight. He was embarrassed and self-conscious. We think our role is to relieve pain and suffering, but sometimes it involves alleviating emotional pain as well" (p. 78).

Meyer & Meyer (2013) describe incidents of dental success, concerning a Christian leader in Argentina who was given a partial to replace his missing front teeth and "our new best friend smiled widely for the first time in many years . . . his wife was enamored, too" (Vol. 1, p. 88). A distinguished district superintendent of a large denomination in Mozambique had been persecuted, tortured, and imprisoned fifteen years before the dental team's arrival; several of his front teeth had been knocked out in torture and persecution for being a Christian. After a partial was made for him, the dental group thrilled to his quiet elation (Vol. II, p. 101). Similarly, a pastor's wife had teeth also knocked out due to radical persecution in India and was ecstatic when a dental professional fixed them for her (Vol. II, p. 121).

Helmer said that his most rewarding experience was to construct acrylic partials to give to young women who had lost their front teeth and see their eyes as they looked in the mirror (as cited in Rehan, 2018, p. 16). Withers et al. (2012) relate a sense of belonging or feeling useful, contributing to the community, increased empathy and self-efficiency while helping those in need (p. 375; Asa, 2011). Call (2010) commented that although dental humanitarian service could be difficult and, even though his dental assistant who volunteers with him mentioned that "he would never work this hard for money," the caring for people who have no other options brings an emotionally-deep satisfaction with immeasurable rewards (pp. 285-286).

Reynolds (2014) also acknowledges that the mission services that dentists provide within this country and internationally are tremendous and that the experiences are, for many professionals, one of the reasons they chose dentistry as a profession (p. 486). Atkins emphasized that wanting to serve people and making a tangible difference immediately is what drew him to dentistry; during student trips, he saw many people helping others and wanted to emulate them (as cited by Burger, 2017, p. 28). Giving to others in altruistic capacities is motivating for most dental professionals.

Honor, respect, and social justice. Inequitable health resources are a justice issue globally. Law & Shek (2009) notice that people with a higher purpose in life devote more time to service and commitment to larger social causes (p. 864). Dickson & Dickson (2005/2006) demonstrate a belief in global equity and an opportunity to redress injustices in health care; they felt it not acceptable that some people enjoy comprehensive services while so many other people received nothing (p. 868; Occhipinti, 2016). Broderick (2007) touts assisting countries through hard times, which may contribute to a more stable future as STM teams reach out a hand of friendship (p. 27).

Mack & Stiles (2000) endorse STM participants' cultivation of a compassionate heart, development of an understanding of what the Bible says about injustice, and a new willingness to take action (p. 109). Wilhoit (1991) proposes that Jesus' example of service is to guide the church as it not only ministers to an aching world but strives to eliminate the sources of injustice, oppression, and degradation (p. 28). Lasker (2016) hopes that volunteers may develop a greater concern about social justice and become more involved over their lifetimes in advocacy and social movements (p. 98). Justice is an important aspect of STMs and there are healthcare and dental perspectives on the lack of care that must be addressed.

STM trips provide an opportunity for self-sacrificial giving, with larger donor outcomes because they have seen the needs first-hand. Miller (2016) is concerned that material wealth is a snare and has a blinding effect in peoples' lives (p. 74) and Griffin (2009) advocates that STMs increase appreciation for what a person has as they decrease dependence on material things, noting that "a lot of the 'stuff' that we accumulate serves as an obstacle to recognizing the Lord as our provider" (p. 21; Overholt, 2013).

Smith (2009) identifies the confusion of those accustomed to the American way which often requires massive consumption without the possibility that this way of life could be universalized without creating a system of privilege and exploitation (p. 101). CDS Members (2015) note that STMs give perspective to life and are a stark reminder that people do not really need as much as they might think (p. 20). Lasker (2016) reminds that exposure to unattainable wealth (in the form of expensive items exhibited by visitors) may create problems (p. 144). Shinn advocated volunteering that "makes life so much more delicious, exciting, and worth living. When you work for money, you have all the things money can buy. When you work unconditionally, you have all the things money can't buy" (as cited in Crozier, 2013, p. 17).

Moral Detractors of Short-Term Missions

Ethical and moral concerns. Many sources speak against STMs for the moral issues they foster, including a poor investment of money. Overholt (2013) identifies the criticisms:

> Would it not be better to simply send money? Are not the benefits more for the people who are going than for those who are receiving teams? Are we not in danger of creating dependency with our giving or causing unintended harm by our kindness? Are we really making an impact? (p. 7; Corbett & Fikkert, 2012; Lasker, 2016; Lupton, 2011; Schuetze & Steiner, 2018)

Dickson & Dickson (2005/2006) identify undesirable side effects and disabling international initiatives that decide and do for others while eroding the recipients' self-confidence, capacity, empowerment, and self-respect (pp. 865, 867; Johnson, 2012; Lasker, 2018; Montgomery, 1993). Dickson & Dickson (2005/2006) note the transfer of Western dental approaches that compete against, rather than complement, the host country's own oral health structure and strategies—for example, extensive composite restorations of posterior teeth that local dental workers cannot produce (p. 867).

Mack & Stiles (2000) also warn that there are moral issues of culture that the Christian must always stand against, regardless of its roots in the culture, including child sacrifice, slavery, and more (p. 86). Other moral concerns that invade STMs include inappropriate team members' use of addictive substances, unseemly dress, improper behavior, and a host of unbecoming and unfitting cultural practices that affect the national people in the STM setting. Immorality issues may arise on STMs as a result of liaisons between volunteers and hosts (Lasker, 2016, p. 144). Infrequently, STM volunteers may find new affiliations with other team members that may cause marital discord. This researcher has seen contention, immoral conduct, and divorce when STM proponents and their spouses are not mutually supportive.

There have been debates advocating leaving cultures to themselves without interferences, but Richardson (1976) believes that proponents do not realize how naïve this notion is since the world is not big enough anymore for anyone to be left alone; he is concerned that the most sympathetic person might not get there first and that lumbermen, crocodile hunters, prospectors, or other human predators will still go in to take from local people (pp. 118-119). There can be diverse moral and ethical concerns on STMs that can be unsavory and distressing to participants.

Dealing with poverty issues. Often people from an advanced country perspective who serve on STMs have difficulties processing the actualities of poverty. Green et al. (2009) speak to the complexities of corruption, lack of resources, and insufficient education which are associated with poverty as the root problem (p. 5). There is often inadequate public health infrastructure, little primary care coverage, and poor dental healthcare due to a shortage of financial resources. Barna (2008) documented that, in STMs, the most common areas of personal growth include becoming more aware of other people's struggles (25%) and learning more about poverty, justice, or the world (16%) (p. 1). Binder (2017) noted that it took some adjustment when he was surrounded by extreme poverty (p. 12) and Martiniuk et al. (2012) quoted American students who also were unprepared for the realities of privation (p. 6; Howell, 2012).

Lupton (2011) warns that effective service among the less privileged requires a significant degree of awareness and delicacy as even the most innocent and well-meaning attempts to help may inflict pain (p. 147). There are concerns about cultural insensitivity or neglect of the locals' desires and Corbett & Fikkert: (2012) analyze destitution by stating that low-income people daily face a struggle to survive that "creates feelings of helplessness, anxiety, suffocation, and desperation that are simply unparalleled in the lives of the rest of humanity" (p. 66). Beyda (2016) explains that to be forgotten is tantamount to being excised from humanity

with no safety nets to keep their lives together: “I say a prayer, and know that they are children of God, a Father who never forgets the least among us” (p. 25).

Miller (2016) realizes that the people whom STMs visit have natural abilities and untapped resources that could be utilized if other Christians could come alongside to provide vision, teaching, and hope (pp. 54-55). Thurman desires that the good news of the gospel be not only about spiritual conversions but also about “helping the poor—those who are broken and desperately hurting—to find Christ’s new life and the Father’s heart” (as cited in Woodbridge, 1994, p. 333).

STM team members have much to learn from other societies and Miller (2016) observed that the STM to Haiti had the team marveling at the locals’ patience, their ability to smile during disappointment, their quiet endurance of discomforts, their fervency in prayer, and the way they assist others in difficulty (pp. 49, 59-60). Corbett & Fikkert (2014) were encouraged by the attitudes of those who live in developing countries where STM teams can see poverty alleviation as “a process of reconciling both the materially poor and non-poor to a right relationship with God, self, others, and the rest of creation (Col. 1)” (p. 22). Miller (2016) observes that those who go in the posture of humility, freely acknowledging that they have poverty themselves, are the ones who do the most long-term good on STMs (p. 95). Richter (2008) insists that humility is the real Christian virtue as it staying close to people, to everyday life, to what is happening with all its down-to-earthiness, and allows teams to live grateful lives (p. 25; Levine & Auster, 2019).

People from more affluent countries may feel moral conflicts when they see others with few resources. Miller (2016) urges STM team members to ask if a person who knows Jesus can be poor or whether poverty should be defined relative to one’s relationship with God where all have traces of poverty in their lives (p. 47)? Howell (2012) recounts that team members usually

had an easier time as they understood poverty in a more spiritual, less material sense (p. 159) and Johnson (2003) sees the benefits to youth when STMs take them face-to-face with the poverty, the persecution, and the suffering Christians in other cultures experience as a direct result of their faith (p. 16; Howell, 2012). STMs teach all participants morality lessons as they experience interactions with other people around the globe.

Compromised standards of care. Many issues concern the dangers of harming people—physically, mentally, or emotionally—including the breaking of trust and other damaging relationship issues. These thoughts can be overwhelming for people from advanced countries as they travel to foreign cultures and cause detractors and weighty issues that seriously affect some dentists' ability to embrace STMs. Lasker (2016) believes medical STMs (she did not address dental STMs) may

> cause a neglect of locals' desires. To make recruitment effective, a program may be more focused on the volunteer's satisfaction than on host needs . . . a promotion of dependency . . . deference to outside expertise, diminishing self-sufficiency. (p. 14)

Shanley (2009) affirms that, in the case of dental services, however, over 90% of people do not have access to proper dental care (as cited in Beaglehole et al., 2009, p. 74). Therefore, Lasker's concerns are not an issue with providing dental care in developing countries as hosts give almost unqualified receptiveness to dental assistance (CDS Members, 2015, p. 3).

The delivery of health care brings concern in the under-developed world as Reynolds (2014) admits that even the most experienced and able dentists are often uneasy about the dentistry they provide if they do not feel it is the same high-quality care that they give in their dental offices (p. 486). Suchdev et al. (2007) discuss that, ethically, STMs may provide care that is inappropriate and fails to follow current standards of health delivery—continuity and access—or public health programs—equity and sustainability (p. 317). Lasker (2016) said that some

professionals are troubled that there may not be adherence to pertinent legal and ethical standards or availability of follow-up care after the team leaves (p. 33; Martiniuk et al., 2012).

Lasker (2016) is uneasy about the possibilities of voyeurism and objectification of poor people and abused or abandoned youngsters who might form emotional attachments to the visitors—with increased trauma for the youngsters if teams disappear back home (pp. 14-15). Stone & Olson (2016) include the risk of exploitation by STMs, raising ethical concerns about informed consent, beneficence, coercion, autonomy, justice, and follow-up of outcomes (p. 239). Beyda (2015) believes that less-fortunate people deserve dignity and the best that the STM team can give (pp. 29-30, 53).

DeCamp (2007) scrutinizes global STMs and questions whether they foster dependency on foreign aid or disenfranchisement with the local health system; his example told of women in the community who preferred to get their medical care from the STM student rather than the local physician (p. 22; Tepe & Tepe, 2017). Green et al. (2009) worry that

> STM medical volunteers often bring with them, albeit unconsciously, attitudes that foster dependence and lack of respect for local practitioners and local knowledge and practices related to health. Is it paternalism or cooperation? Is it charity or aid? Patients get used to the free care and end up waiting for the next group to arrive to give them free care rather than seeking out ways in which they can help themselves. (pp. 2, 6)

Trota (2009), a volunteer who visits Afghanistan, documents that there is only one dentist per 200,000 patients. Sterilization practices are lax and treatment methods are often crude—untreated dental conditions resulting in death do occur occasionally (pp. 10, 12). Green et al. (2009) also demonstrate concern that some dental STM teams do not observe standard sterilization protocols (pp. 2, 6) and Martiniuk (2012) was agitated that universal precautions were an unfamiliar concept, citing that at the end of each day, the hospital staff would go through the trash and sharps containers, pulling out items that they could sterilize and use again (p. 6).

CDS Members (2015) provide training and resources on their website to show how sterilization can be done with simple, yet effective, methods and insist that safety measures need to be in place to protect the caregivers and the patients (pp. 43, 93, 98).

CDS Members (2015) also speak against contributions that may affect quality care:

> Donated equipment that is often used and dated is given frequently by well-meaning dentists or supply houses for use in developing countries. People seem to donate their 'junk for Jesus' without thinking that in the developing country it will not only be very expensive and difficult to get into the country but also almost impossible to maintain without replacement parts and some who know how to repair it. (p. 72)

Miesen (2013) corroborated that donations often do not work. It is almost always the case that without spare parts or trained technicians, technological items stop working almost immediately (pp. 1-3). Using expired medications or giving medications indiscriminately and unwisely can also be unethical. Many issues of standards of care can be overwhelming to dentists on STMs.

Emotional Benefits of Short-Term Missions

Joyful, positive, empathetic living. There are emotional perks to STMs and volunteerism and Levine & Auster (2019) state that

> Even dentists, as satisfying as our careers may be, can feel an absence of completeness [and] giving back provides a level of fulfillment that is absent in our day-to-day existence . . . dental mission veterans 'light up' when they speak about their experiences. (pp. 3, 5)

CDS Members (2015) believe that even though mission dentistry involves hard work, it can be the kind of good stress which lets a person sleep well at night and can represent some of the most memorable aspects of a dental career (p. 21). Albert Schweitzer surmised that "the only ones among you who will be really happy, are those who have sought and found how to serve'" (as cited in Allen & Vaughan, 2016, p. 3). Botko (2014) suggests beneficial feelings with dental volunteering and STMs, stating that doing good for others creates a natural sense of accomplishment, happiness, and well-being (p. 22; Bimstein et al.; Binder, 2015; Lancee, 2014;

Lee, 2018; Piliavan, 2007; Spear, 2015). Serio (2009) finds that most people who return from a volunteer project feel that it is one of the most rewarding ventures they have pursued in their lives—by helping others and doing so under less than ideal circumstances (p. 12; Schenberg, 2018). McGregor (2006) suggests that typical, industrial organizations often offer only limited opportunities for the satisfaction of egoistic needs to people at lower levels in the hierarchy and there remains the needs for self-fulfillment (p. 51)—this often occurs for newer dentists who work for large, corporate, dental organizations. A STM may meet those individual needs.

Solheim (2007) hopes that a STM can fulfill a lifelong dream if it is well planned (p. 387) and Mascone (2017) touts the enriching of life through volunteerism (p. 3). Brown (2005) asserts that volunteering has been documented as beneficial to the well-being of the volunteers (p. 483; Weinstein & Ryan, 2010) and Botko (2014) notes that STMs result in a helper's high or a happiness effect (p. 22; Brown et al., 2012; Lee, 2018; Piliavan, 2007; Post, 2005; Spear, 2015; Stukas et al., 2016b). Withers et al. (2012) discern that motivating factors to STMs include psychological and emotional rewards, where instead of just complaining about the world, the volunteer can actually come and do something good for someone else (pp. 374, 378). Whetsell effuses: "I have fallen in love with [dental STMs] and will do this forever . . . I don't think I could feel complete if I'm not doing things like that" (as cited in Broderick, 2007, p. 20) and Bloomer, a dentist, states that STMs recharges his batteries (as cited by Burger, 2016, p. 18).

Lee (2018) suggested that volunteering was associated with happiness according to the income of volunteers; extroversion and emotional stability were significantly and positively associated with happiness, as were generalized trust and self-rated health (p. 6). Trinitapoli & Vaisey (2009) report that volunteering teaches industry (p. 113) and STM teenagers declared, "I

enjoyed getting my hands dirty—getting involved on a trip" (as cited by McDougall, 2012, p. 99). Damazo affirms that he wants to be productive (as cited by Crozier, 2014, p. 20).

Campbell (2009) notes that he didn't realize how much he would benefit from STMs and that when he thought he was giving to other people, they gave more to him; he felt free to spend as much time with patients as he desired, which is not always possible with home employment constraints (pp. 627, 637; Bimstein et al., 2008; Iserson, 2018; Serio, 2009; Stone & Olson, 2016). O'Connell wonders if it is a little selfish on his part to do STMs because there is nothing greater than the huge smiles he gets from helping the poorest of the poor (as cited in Griffin, 2009, p. 23). Beyda (2016) described how he met two joyful men, who moved his spirit and that many times the healer was touched by those he was sent to heal (p. 58). Post (2005) spoke of the wisdom in the words of Prov. 11:25 where generous people prosper as they refresh others and a generous life is a happier and healthier one (p. 73).

Caring is fostered in many who go to serve others as Frank (1975) told John Hopkins University School of Medicine graduates that any treatment that does not also minister to the human spirit is deficient since healing and the maintenance of physical health involve the whole person (as cited in Hoekema, 1986, p. 225). Occhipinti (2016) trusts that STMs demonstrate an empathic connection to the suffering of others (p. 266) and Brown (2005) shows volunteering as concern for others while generating a sense of deep personal fulfillment (p. 484). Okun et al. (2015) found that older adults report their primary motivation for volunteering is the expression of altruistic values (p. 868). Therefore, appeals to older adults are most likely to be effective if they are focused on eliciting compassion and on the importance of helping others. These emotional needs can be realized by STM activities.

Self-esteem and self-actualization. The self-concept of volunteers may be improved as they experience STMs to help people in need. Jenkinson et al. (2013) found that volunteering was associated with self-esteem (p. 2; Weinstein & Ryan, 2010) and Withers et al. (2012) documents that volunteering leads others to feel good about themselves as their role identity improves (pp. 375, 377). Bimstein et al. (2008) said STMs provided dental students with an opportunity to reflect on their own lives and culture and the experiences that helped to define them as a person (p. 1500) and Thoits (2012) judges that the more time spent in volunteer activities, the greater the identity importance, and the more volunteers perceive they matter to other people (pp. 360, 380; Stukas et al., 2016b; Wilson, 2012).

Botko (2014) asserts that volunteering provides a health boost to self-confidence and self-esteem in participants (p. 22; Brown, 2005; Chen, 2016; Mascone, 2017; Wilson, 2012). Brown (2005) acknowledges five successive levels of travel motives: relaxation, stimulation, relationship, self-esteem/development, and fulfillment, concluding: “Unless individuals have their physiological and safety needs met, they are less likely to be interested in traveling to make a difference. Self-actualization can be considered the end or goal of leisure” (p. 481).

Overcoming diverse, troublesome emotions. STMs may assist volunteers in overcoming emotional issues present in their lives as they serve other people. Anderson (1991) directs individuals toward the point of becoming whole persons, where love replaces hate, self-acceptance replaces self-condemnation, hope replaces despair, and communion replaces estrangement and aloneness (p. 186). Jenkinson et al. (2013) found volunteering associated with reductions in dispiritedness, stress, hospitalization, pain, and psychological distress (p. 2; Brown et al., 2012; Open, 2013). Wilson (2012) has seen that volunteering both enhances mental health and protects against symptoms of mental illnesses such as depression (p. 198; Brown, 2005;

McDougle et al., 2014; Stone & Olson, 2016). Chen (2016) said that volunteering was an effective way to transfer volunteers' focus from physical discomfort and to keep living positively (p. 226). Spear (2015) determines that volunteering combats the risk of depression by preventing social isolation, loneliness, and exclusion due to the contact with others (p. 105; Farrell & Bryant, 2009; Sevigny et al., 2010) and Cheek (2015) addresses volunteering benefits as those that dampen negative feelings, avoid discouragement, and keep emotional reserves high (p. 197).

Campbell (2009) conducted a study of medical professionals, concluding that reduction in burnout is one of the benefits of STMs (p. 627). Since stressful aspects of medical practice—such as lack of control over personal time and pressure to see more patients in less time—were rated and correlated with the burnout scales, Campbell (2009) was gratified when burnout scores improved following STMs and continued to improve at a six-month follow-up (p. 627). Serio (2009) notes that boredom and stress are two of the major factors contributing to burnout among dentists (p. 6) and Fritz (2016) states that "Over the years, I have advised many colleagues that, when that exhausted feeling of burn-out syndrome hits you, it's time for a mission trip . . . people had their burn-out cured by the rich, often emotional blessing received" (p. 2).

Hall (2014) agrees that her mission of improving dental care in a village in Haiti included restoring her ardor for dentistry and rekindling a can-do outlook—the one that tends to dissipate as professionals progress in their professional lives (p. 24). Spear (2015) touts volunteerism as a break from the day-to-day routine (p. 106) and Griffin (2009) likes dental STMs for their freedom from the Western pace of life, where it is observed that people who have less are often more laid back about life, more concerned with enjoying their families and getting to know their neighbors (p. 21). Damazo (2014) affirms that he does the same thing over and over with enthusiasm and still enjoys restoring teeth even though he has done tens of thousands (p. 85).

Iserson (2018) showed that studies repeatedly demonstrate the positive relationship between volunteering and psychological health; medical volunteer activities help physicians reengage with their profession, provide personal growth, promote renewal by refreshing a sense that the work they do is personally rewarding and serves a greater good (p. 519; Duffy, 2014; Jager et al., 2017). Midlarsky (1991) indicated that volunteering helps those under stress as it distracts from a person's difficulties, enhances the meaningfulness and value of each life, enhances the perception of the participant's competency level, improves one's mood, and provides a connection to different cultures (pp. 238-264; Brown & Okun, 2013; Kim & Konrath, 2016; Pilivan & Siegl, 2007; Weinstein & Ryan, 2010). Iserson, (2018) proposed that studies have suggested that regular volunteering improves mental health (p. 516).

Mack & Stiles (2000) remind STM participants to stay emotionally healthy while staying calm and compliant: "When things do go wrong, give yourself a break. There's no sense heaping guilt on top of mistakes. Know that God is honored by your risk for him" (p. 150). Cheek (2015) suggested that viewing events through the lens of personal values helped the volunteers to cope, to maintain emotional stability in the midst of trying circumstances, and keep the ability to regulate emotions in the face of intense experience (pp. 184, 197; Chen, 2016). Sanders (2007) recommends that humor is a great asset and an invaluable lubricant in missionary life and believes it a serious deficiency if a missionary lacks a sense of humor (p. 66). Bennis (2009) agrees that adaptive capacity is made up of resilience or what psychologists call hardiness (p. xxvii). Snyder (2010) notices that STM participants often do not sweat the small stuff anymore as the experience makes them realize how easy life is at home (p. 32).

Emotional Detractors of Short-Term Missions

Disturbing STM emotional reactions. Emotive outcomes on STMs may be detrimental in various ways. Serio (2009) summarizes several distinct phases of culture shock (paraphrased by this researcher): 1) initial euphoria; 2) irritation and hostility at the situation and conditions; 3) gradual adjustment; 4) adaptation, or biculturalism, after having come to an understanding of the situation on local terms, not the volunteer's terms (p. 42). This is often experienced by teams.

Guilt is a hard emotion for STM participants to process as they navigate cultures. Richter (2008) deems that the two most damaging motives in the makeup of missionaries seem to be guilt and the desire to save and "both are forms of idolatry and make missionary work very hard and eventually impossible" (pp. 24-25). Kuperas & Hoksbergen (2016) caution that

> Maybe we have a false sense of superiority, perhaps even 'savior complexes,' that keep us from connecting with people in other countries in helpful ways . . . Will we focus too much on material goods and ignore other important parts of people's lives like dignity, cultural integrity, and a sense of belonging. (pp. 15-17; Lasker, 2016; Miller, 2016; Schuetze & Steiner, 2018)

McDougall (2012) affirms that guilt may affect STM teams who can be overwhelmed by their wealth in the face of poverty (p. 14). Archer (2014) also identifies the STM guilt about how little may feel they do for the kingdom compared to the missionaries met. Guilt may come from how much the STM participant owns, compared with the starving orphan—bringing emotions that are raw and reeling (p. 104).

STMs can be challenging emotionally as McDougall (2012) identified his team's struggles with delays, charges, bribes, corruption, and severely stretched patience (p. 29). Joannes (2018) spoke of one missionary who listed emotional struggles on the mission field, including rejection, betrayal, territorialism, competition, homesickness, guilt of not being with family during crises, guilt of not doing enough, disillusionment, fear of failure, perfectionism, depression, anxiety, burnout, and cross-cultural fishbowl; she finished with the thought to

"remind ourselves to fix our eyes on Jesus" (p. 152). McDougall (2012) recommends on STMs that "acceptance is peace and trying to manipulate things to be different, or just plain fighting against what God is unfolding creates frustration and failure—for 'control freaks' it is the best way to learn to trust God" (pp. 25-26). These detractors would be ominous without the calling and comfort of knowing that God accompanies the STM trips and that obedience brings rewards.

Compassion fatigue and burnout. Compassion fatigue is a common emotional and mental state of weariness that can afflict anyone who has a tender heart and the challenge is in learning how to sustain that compassion when faced with the overwhelming needs experienced in charitable work (CDS Members, 2015, p. 98). Joannes (2018) acknowledges that the stress of cross-cultural life often leads to ill health, broken relationships, wounded spirits, and even abandonment of the Christian faith (p. 119).

Withers et al. (2012) believe that emotional costs of volunteering, such as burnout, contribute to high turnover (p. 376) and Stevens (2012), a medical missionary—speaks to what he calls "flameout," involving the stress of overwork (p. 330). When his wife remarked that he had lost his congeniality, he realized that his flameout had happened because he had gone too hard for too long; he concluded that if the devil cannot get missionaries to ignore God's call, he will get them to work themselves to death. STM volunteers can push themselves for a short time, but balance is important. Koteskey (n.d.) identifies the three main causes of missionary burnout:

> 1) Social: problem people; 2) System: the job setting; and 3) Self: the missionary mind lacks self-confidence or has low self-esteem, is unassertive, submissive, passive, anxious, and blames themselves for failure. Needs for achievement, approval, and affection are too high, causing impatience, irritability, and difficulty knowing how to handle anger and conflict. (as cited in Joannes, 2018, p. 150 and paraphrased by this researcher)

CDS Members (2015) remind of the importance of preventing compassion fatigue by remembering that "the need is not the call" (p. 258). They suggest that this saying be recited

daily since there are so many needs everywhere. God has created a vision and spiritual blessings that are received by members as they provide dentistry and minister to disadvantaged people at home and abroad as equilibrium is maintained.

Johnson (2017) advises that STM teams can be prepared to spend themselves and be spent as they work overseas, with jet lag, and in a strange environment: “Let even your weariness remind you of the worth of the gospel” (p. 96). Via & Via (2012) suggest that STM leaders

> carefully consider the emotional stability of the volunteer as well. The great poverty, disease, and hardship encountered on one of our recent trips proved to be too much for one of our team members. This individual became very depressed and lethargic and was unable to continue with the mission. Travel and ministry . . . may be too emotionally demanding for some people. (p. 31)

Cultural dissonance and re-entry issues. Another concern (although remedies and suggestions are given) is the reverse culture-shock upon return (McDougall, 2012, p. 14; CDS Members, 2015). Frost (2015) warns that upon their return home, volunteers may encounter a difficult period of readjustment that can make an individual feel out of place in his or her own home country because of disconnections with STM experiences (p. 726). Mack & Stiles (2000) advise persistence and resilience for the inconvenient occurrence of re-entry issues, suggesting that cultural dissonance brings change which is not known until confronted with life at home; the conflict between pre-trip and post-trip self may be disconcerting (pp. 89-106, 157-164).

Joannes (2018) is concerned about a large number of missionaries who crash and burn after returning to their passport countries, often feeling jaded and fatigued (p. 155). Archer (2014) shows that re-entry is a physical, emotional, and spiritual challenge, with the need for a team debriefing session (p. 100). CDS Members (2015) also comparably note that overseas backlash syndrome is often a surprising experience faced by some returning group members (p. 255; Joannes, 2018; Serio, 2009) and Dearborn (2003) articulates the hurt participants feel when

they come home from a STM and no one seems to be interested in their experience, compounded by the STM member who misses the understanding of their team (pp. 95-96). These difficulties can be detractors for STM dentists and affect their motivation for repeat STMs.

Social Benefits of Short-Term Missions

Inspiring and encouraging followers. There are varied, unique social relationships available on dental STMs. Lowe & Lowe (2010) reinforce that "humans develop and grow within a social ecology through reciprocal interactions, transactions, and exchanges" (p. 61; Lerner, 2002; Magnusson & Allen, 1983). When other people see charity and generosity is given, it may spark them to contribute. Barna (2008) says STMs boosts team members' financial generosity (p. 2) and Botko (2014) notes that charitable acts empower and inspire others to give; these STM actions are contagious and cause a ripple effect, driving change in communities (p. 22; Broderick, 2007). Withers et al. (2012) lauded a volunteer who was seen as a role model to the children she helped at the clinic because like them she had grown up in Latin America in a poor family (p. 378) and Offut (2011) saw national people mimic the practice of STMs, sending their own teams to remote locations (p. 806). CDS Members (2015) say

> Service examples are set by team members who travel. Family, friends, church, and community are all watching the members give globally . . . a mission trip brings opportunities to witness and to share Christian beliefs in dental practices and in our community. It raises the importance of missions for the home church. (p. 14)

Vostatek (2009) relates that with his young family, he sees STMs as an excellent opportunity to teach his children about various cultures and lifestyles in other parts of the world so they can feel a connection and a responsibility to help others (p. 4). Serio (2009) has seen that patients at home become very supportive of humanitarian efforts and are proud their dentist possesses altruistic motivations (p. 44).

After a family STM to Belize, one parent wrote that all family members agreed that the STM had been the best trip experienced together and the mission often surfaces in conversations of memorable family moments (Meyer & Meyer, 2013, p. 54). Asa (2011) recommends that professionals bring their spouses along and have them help during the dental work, whether their spouses are dental area professionals or not since there is always plenty of support work to be done (p. 25; Brown, 2005). Cheek (2015) heard one Mennonite couple describe working in Cambodia with people who had lived through the Khmer Rouge genocide. They were embraced as older family members by many people because they were the generation that had been lost and many of the children did not have grandparents (p. 197).

Barna (2008) attests that people frequently go on STMs with immediate family members, most often with siblings, and only 14% of these trips were parents facilitating a family learning experience and just 1% of Americans had ever taken a mission trip as a family (p. 3). This seems a sad commentary since STMs can be beneficial family bonding experiences and it is slowly changing. Mack & Stiles (2000) announce that one of the best things about taking children to other cultures is the bigger picture they have of the world and believe it is best is to minister as a family (p. 153). Influencing people to join or to contribute is a substantial boon to dental STMs.

Fostering relational, teamwork benefits. Jenkinson et al. (2013) found that volunteering was associated with social support and interaction (p. 2; Kim & Konrath, 2016; Nencini et al., 2016; Weinstein & Ryan, 2010). Withers et al. (2012) saw that volunteers liked feeling useful and enjoyed being a part of a team and a program that was changing lives (p. 277; Cheek, 2015; Soderland, 2011) and Jordan commented that it was gratifying to be involved in a huge undertaking and to work with many professionals who give of their time and ask for no recognition (as cited in Rehan, 2018, p. 17). Meyer & Meyer (2010) cite local dental resources in

the U. S., like the Mission of Mercy weekends in many states, that provide energy and goodwill suffused from 800 plus volunteers working together at over 100 portable, dental operatories to provide free dental care to some of the most destitute neighbors within the communities (p. 5; Paramore et al., 2018).

Open (2016) thinks volunteering can improve one's social life (p. 1) and Brown et al. (2012) believe that volunteering brings social connectedness (p. 468). Serio (2009) comments that making new friends is another benefit that contributes to a positive STM experience (p. 12; Barna, 2008) and varied research studies advocate that volunteering brings satisfaction with one's social life and develops stronger networks that may garner new professional contacts (Chen, 2016; Mascone, 2017; Miller, 2011). Spear (2015) touts volunteering as enhancing social skills as well as relationship skills, while alleviating shyness, as "it allows individuals to open up, blossom, and become socially engaging and actively involved" (p. 105).

Griffin (2009) related that STMs brought a profound friendship when he met one of his dearest friends on a mission trip (p. 22; Brown, 2005; Burger, 2016; Withers et al., 2012) and Bimstein et al. (2008) spoke to stronger social bonds with other trip participants than with their other peers (p. 1501; Konrath, 2012). Salas-Provance et al. (2014) said the connectivity provides a psychological boost to individuals (p. 68; Burger, 2016).

One church reported that their STMs include a three-month preparation time that lends itself to the deepening of relationships among the team members that continue beyond the actual outreach into the life of the church (Overholt, 2013, p. 95). Via & Adams (1979) recommend that "Truth cannot be taught effectively outside close relationships . . . The truth of the gospel becomes compelling as we see it transforming lives in the rub of daily, messy relationships . . . Whole persons must teach whole persons" (pp. 89-91 as cited in Chester & Timmus, 2008, p.

118). Via & Via (2012) connect STMs with Eph. 4 where Christians are reminded to strive and work for the unity of all believers (p. 29). Lowe relates that "The New Testament teaches that . . . in those reciprocal relationships between members of the body of Christ . . . we encourage one another and promote one another's spiritual growth and development" (as cited in Galli, 2019, p. 60). Teamwork advantages and social interaction growth are strong benefits of STMs.

Relationships with nationals and missionaries. STM teams often go to developing countries to build social relationships with the national people they are serving which develops common humanity and a sense that suffering can be borne together (Stone & Olson, 2016, p. 243; DeCamp, 2007). Shetler & Purvis (1992) believe that hearing the same truths about Jesus Christ from people from all over the world validates those truths and greatly enlarges the faith of all involved (p. 120).

Archer (2014) builds off the famous quote of William Carey that STMs are designed to "hold the ropes" for long-term missionaries (p. xii) and Chen (2018) relates that convivial volunteer-host relationships can serve as acts of validation and empowerment for national hosts (p. 140; Palacios, 2010). Griffin (2009) enjoys the idea that he can meet a Christian for the first time in a foreign country, and in less than two minutes they may have more in common than he does with an unbelieving neighbor he had known at home for much longer (p. 22).

Hoekema (1986) agrees that

> the church must be concerned about the whole person . . . though the chief purpose of missions is to confront people with the gospel . . . the church must never forget that the objects of its mission enterprise have bodily as well as spiritual needs . . . opt for the *holistic* or *comprehensive* approach in missions . . . improving the living conditions of these converts and their neighbors, working in . . . health . . . an essential aspect. (pp. 222-223)

CDS Members (2015) add that STM members build lasting bonds of friendship with local people and often return to work with the same people. Some have also had the chance to

host their international friends who visit the STM teams' country (p. 13). Relationships with national people may continue as Offut (2011) told of a young man who partnered with an American during a STM and the South African now keeps him informed through e-mails and occasional phone calls; the partner reciprocates by sharing about life in the U.S. and by sending an occasional monetary gift (p. 807; Levitt, 2007).

Frost (2015) acknowledges that STMs bring improved global connections (p. 724) and Mack & Stiles (2000) advise that STM groups find a place to which they can return rather than world-hopping so they may see God work over time (p. 47). Dickson & Dickson (2005/2006) said that while teaching a group of Mozambican health professionals that included dental therapists, they asked them how outsiders could best contribute and interestingly, they spoke less about skills and more about personal attributes (p. 868).

Archer (2014) promotes STMs that take the soothing balm of fellowship and encouragement to global service areas since "our missionaries are our mission" (p. xii). Overholt (2013) identifies a distinction between a STM going to do ministry in partnership *for* churches rather than doing ministry *with* churches and emphasizes that STMs are more about building relationships with the nationals and partnering with them (p. 31). Miller (2016) believes that groups will learn from national people and come home with a long prayer list (p. 90; Overholt, 2013; Howell, 2012) and Via & Via (2012) request that teams bless missionaries and care for them (p. 10). Physical efforts partnered with financial help can leave a missionary and church encouraged and strengthened to press on for the gospel. Miller (2016) advocated for STMs that may be a bright spot in long-term missionaries' lives as the group comes to encourage them (p. 89). Support among mission-minded people, both in short- and long-term service, is an essential component of the outreach of STMs.

Social Detractors of Short-Term Missions

Teamwork and interpersonal conflicts. Communication is difficult in cross-cultural settings and Stone & Olson (2016) listed significant obstacles that are compounded by cultural and language barriers (p. 239). CDS Members (2015) also identify issues with interpreters and desire to find a dedicated interpreter who returns each day to the same dentist as the learning curve is steep with dental terminology (pp. 87-90). Praying for good interpreters is significant as the desire is for Christian helpers who will be sensitive to opportunities to share the Gospel with the patients. Unfortunately, translators may be distracted with cell phones or will sit far back from the patient, showing they are not actively engaged in the process. Some interpreters are not empathetic or caring, are easily distracted, and do not desire to be part of the dental team. CDS Members (2015) speak to the various options involved with translators (p. 89) and Miller (2016) maintains that relational cultures rarely verbally disagree with visitors and will do almost anything to avoid direct conflict due to their 'shame and honor' worldview (pp. 64-65).

Bimstein et al. (2008) discussed the fairness of picking STM members due to limited trip spots and the competition among classmates who want to participate on the STMs (p. 1502). Other interpersonal issues include poor inter-team relationships. Archer (2014) explains that since people are sinners, there will be personality issues that arise. For example, relational conflict, tensions, annoyances, rivalries, romantic interests, and other occupational hazards of being human may occur (p. 100; Van Yperen, 2002). Tucker (2004) demonstrate that missionaries are ordinary individuals, plagued by human frailties and failures (p. 13) and Joannes (2018) documented problems with peers and relationship issues with the mission field leaders or fellow missionaries as the fifth top reason for missionary attrition (p. 129).

Overholt (2013) advises that with larger groups, the tendency is for much of the interaction to take place within the group itself, while smaller groups tend to interact more with the local people (p. 53). Richter (2008) recommends that STM team leaders set guidelines about electronic devices, suggesting that conversations with fellow group members and listening to common music is best during transportation times (p. 73).

Burdening nationals and missionaries. Green et al. (2009) express concern that STM volunteers have the potential to be quite burdensome (both financially and in terms of personnel time) for host organizations and communities (pp. 7-8; McDougall, 2012). Corbett & Fikkert (2014) warn that unless a church is very experienced, the elephant-sized feet of the STM team may cause damage, create conflict, cause discouragement, and be a poor witness in the community (p. 84). Overholt (2013) remarks that

> it is all too common for mission teams to come with the attitude of a teacher who has the answer . . . before they play the role of a student to find out what the specific problems and needs are . . . we need to do it in conjunction with the missionaries who have boots on the ground and the local church leaders involved. (pp. 39, 43)

Livermore (2006) agrees that STM participants must be careful as conclusions about why the group should go, the sense of urgency, and the use of Scripture and money all flow from the tendency to oversimplify complex issues (p. 100). Archer (2014) remarked that advanced-world countries seem to get more out of the trip than the missionaries if they do not foster deep relationships with them and without talk of the team going back or becoming supporters (p. 3; Lasker, 2016; McDougall, 2012). Overholt (2013) insists that STMs need to be honoring to God by loving the people in the countries where they are going, not just using them for some experience for the group members (p. 37). Archer (2014) reminds leaders that the team should not view the missionaries as personal tour guides, but rather as friends and partners in the mission to bring Jesus glory (p. 110). Corbett & Fikkert (2014) hope that STMs teach humility

and willingness to submit to local leaders, even if doing so goes against the groups' own preferences (p. 102).

An imbalance often occurs between the STM team and the nationals involved. Chen (2018) identifies that the coming together of volunteers and hosts of starkly different countries, cultures, wealth, and levels of privilege may set up unequal power relations (p. 145). Reciprocal relationships built over time are crucial in reducing these power relationships as they help with the mutuality of participation. Corbin & Fikkert (2014) state that the provider-receiver dynamic inherent to relief work, if applied outside the context of a crisis, can deepen poor communities' existing feelings of inferiority or inadequacy as the pride of the givers are enhanced (p. 37).

CDS Members (2015) advise that team expenses should be paid ahead as much as possible since the locals usually do not have reserve funds to cover costs. Even if the group plans to settle up later, the local budget leader may agonize over the need for more money until that happens. Seeing and understanding the work of the local missionaries is an important aspect of all trips. CDS Members (2015) note:

> It is essential to honor and to respect local missionaries and nationals who are taking time from their responsibilities and busy schedules to host the team. As visitors, the team members may not be aware of what the hosts are facing. . . show flexibility to changes in daily schedules . . . look for opportunities to help the missionaries . . . doing dishes . . . watching their children . . . try to do more than your share. (p. 136)

Suchdev et al. (2007) demonstrate concern for imposing burdens on local health facilities, providing culturally irrelevant or disparaging care, and leaving behind medical waste (p. 317). Livermore (2006) proposes local ownership which means letting the local churches direct and shape what happens in the cross-cultural efforts as they direct the STM group rather than vice versa (p. 94). CDS Members (2015) concur that it might be necessary to perform a task the local

way with a cooperative spirit—which might be different from how the STM team might approach the task. No job should be beneath the volunteers' dignity (p. 137).

Home responsibilities and concerns. Difficulties in committing to STM volunteering by dentists especially include not having the time because of family or professional commitments. Vostatek (2009) worries about leaving his family and office, since time away for a mission can be challenging for those in charge at home (p. 4). Bimstein et al. (2008) spoke of family obligations, cost, and time commitments as significant barriers to STMs (p. 1501). If the spouse is not on board with spending family time and resources for STMs or working in more austere settings rather than comfortable vacations, then STMs can definitely stress family relationships.

Most dental personnel worry about leaving their home offices. Many dentists are solo practitioners and the fixed overhead costs continue when they are gone, often exceeding trip expenses. Serio (2009) discusses these concerns as major hurdles where

> the practitioner's perception that ten days to four weeks away from the practice will be disastrous . . . With proper planning, a volunteer mission need not be a financial hardship. Patients will . . . [have a] favorable view of their practitioner. My practice has never suffered because of the mission trips I have participated in. (p. 44; Adams, 2013)

Arranging a group practice can help with ongoing, rotating volunteerism of the dentists involved and solo practitioners can hire retired dentists or a recent dental school graduate. Often, the local dental association will have a list of locum tenens dentists who will be able to cover the practice during the absence. The office can be shut down and all staff may take their vacation days at the same time (Serio, 2009, p. 44).

Rationale for Study and Gap in the Literature

Rationale for Study

There is a significant gap in the literature concerning dental STMs and the occasional book or article that is produced on dental STMs is usually the testimonial of an individual dentist concerning an isolated, dental, STM trip. Although there are few dental sources available, similar responses to STMs may occur within volunteer studies, medical, or general STM literature that offer valid input into the six dimensions of holism on STMs.

When the quantitative, research instrument and the qualitative interviews were accomplished, this researcher coded responses into similar, six categories of developmental psychology to investigate whether the study's STM-experienced dentists yielded similar thoughts to those found in the literature or whether other factors emerged that added differing or additional benefits and detractors that will aid in the recruitment of STM professionals. The assimilation of the thoughts from the STM literature search and the study outcomes were correlative and will be discussed together in Chapter Five.

Gap in the Literature

Caldron et al. (2015), Shrime et al. (2015), and Sykes (2014) comprehensively reviewed medical STM literature but did not include dental journal articles on dental STMs since they are almost nonexistent. O'Callaghan (2012) states that although many dental professionals serve on international mission trips, little has been published in the professional literature to guide dentists (p. 348). Surveying more than 50 popular books on STMs, this researcher found the word "dental" mentioned only five times, and then only in brief sentences correlating with medical, physician-led STMs.

Most dental STM articles are written by individual dentists who factually specify why STMs appealed to them and/or their group and identify the personal benefits, the blessings, and the challenges they and the patients, team, and support personnel experienced from the STM.

Asa (2011) relates that “Virtually every dental volunteer who travels to a remote location returns with an inspirational story to tell” (p. 29). This researcher has found articles describing isolated dental STMs that date as far back as the Farrell (1974) article on the CDS and an ADA (1976) story where dentists helped in a Guatemalan earthquake. Forrest (1974) commented on “dentists who have given of their talents, skills, and compassion to relieve pain and suffering in lands where the ravages of dental disease abound and dentists are few” (p. 28).

Since the literature study has revealed notably few resources addressing dental STM—other than descriptive articles about specific missions, a notably large gap in the dental literature exists. No resources to date have been published on how to recruit participants to dental STM, and this study adds the holistic benefits and/or detractors that are part of dental STM experiences in the areas of the spiritual, moral, social, emotional, intellectual, and physical components.

Profile of the Current Study

This chapter presented a literature review pertinent to the research problem concerning the recruitment considerations for faith-based, dental, STMs as related to the holistic development of dentists and participants of STMs. The findings are foundational to the research outcomes discovered in Chapters Four and Five. The literature search addressed the benefits and the detractors of STMs in the six areas of personhood—the spiritual, moral, social, emotional, intellectual, and physical aspects. The theological foundation showed, through biblical texts and theological writers, the Scriptural examples of STMs, current-day STM practices, and the foundational ideals that impact the lives of STM participants as they serve God’s beloved human creatures. The theoretical portion of the literature review displayed the origins of developmental psychological theory and the supporting literature on the six integrated areas that dental team

members experience during the life-changing aspects of STMs. Barna (2008) notes that the label "life-changing" is pasted on many things, but the description fits most STM trips (p. 1).

Dentistry opens the door to show Christian hope and God's love to other people by portraying a Christian worldview of grace and service. Serio states that through a STM, national people know that God has not forgotten them and that the giving of this hope is perhaps the greatest power as "We aren't offering dental care. We are offering hope. That's the most important thing we can do" (as cited by Crozier, 2015, p. 14).

Although the dental literature currently offers few considerations concerning the recruitment of dentists for STMs, this study appears to be the first to document the holistic, developmentally-integrated benefit or detractor components associated with the encouragement of STM volunteers for dental trips to under-served countries. This mixed-methods research questioned Christian dentists concerning the phenomena of dental STMs utilizing quantitative, research instruments and qualitative interviews that apply the six, developmental, psychological dimensions to provide recruitment considerations and recommendations when persuading participants to join Christian, dental STMs.

The skill sets that dental professionals possess serve well in the realm of Christian, humanitarian service. The good that can be achieved through oral health and spiritual healing is immeasurable. Forbes & Topazian (2000) believe that "faith-based, charitable, dental assistance, whether at home or abroad, will provide an enduring and abundant spiritual, professional, and personal life" (p. 81). Christian, dental STMs become a winning, life-changing, and hope-giving, spiritual and evangelistic experience for all involved as oral health needs are met.

CHAPTER THREE: RESEARCH METHODOLOGY

There are few literature resources on dental STMs and no research studies addressing the benefits and the detractors of dental STMs concerning the holistic integration and the developmental growth of Christian dentists as they participate in dental STMs and give recommendations for the recruitment of dental professionals for STMs.

Chapter Three includes a synopsis of the research methodology by incorporating the research problem, purpose, and questions. Further aspects identify the populations, limitations of generalization, the role of the researcher, ethical considerations, data collection methods, instruments, and data analysis.

Research Design Synopsis

The Problem

The single, most widespread, chronic, global disease is tooth decay (Benzian & Williams, 2015, p. 16). Since Christian dentists can use their specialized skills of healing for Christian evangelism and serving other people, dentistry is uniquely conducive to STMs. Dental treatment is rarely available or affordable in the developing world and under-served areas of more advanced countries (see dental need discussion on page 22). Dental-specific, STM clinics are especially advantageous because dental problems can usually be remedied in a matter of minutes with no need for follow-up or medication.

This researcher is interested in the education and the recruitment of Christian dentists who will be informed of the benefits of becoming leaders and participants on dental STMs. Additionally, by discovering the detractors of dental STMs, recruitment efforts may be directed to overcoming the hindrances. This area is currently most useful to the hundreds of Christian organizations and mission departments of churches who attempt to recruit dentists to address the

great dental need around the world, which then opens the door for potential spiritual healing to those people touched by the charitable dentistry.

Purpose Statement

The purpose of this mixed-methods, phenomenological research was to analyze quantitative and qualitative data to identify and to understand the benefits and the detractors of dental, short-term missions relating to Christian dentists' holistic development involving the six dimensions of spiritual, intellectual, physical, moral, emotional and social integration; the results will provide recruitment considerations for the professionals who participate in Christian missions to serve under-resourced people.

Research Questions

Creswell (2017) states that a strong, mixed-methods study contains "a quantitative question . . . a qualitative question, and a mixed-methods question: This configuration is necessary because mixed-methods [relies] . . . on both forms of inquiry" (pp. 148, 151). Therefore, the following three questions guided this study:

RQ1. Utilizing a quantitative research instrument based on the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions), what benefits or detractors did Christian dentists identify as contributory to their decision to participate or not to participate in dental, short-term missions that serve under-resourced people?

RQ2. Utilizing qualitative, in-depth interviews with Christian, highly experienced, short-term, mission dentists based on the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions), what did these Christian, dentist leaders identify and describe as the predominate benefits and detractors of

dental short-term missions and their recommendations for the recruitment of dentists to serve on these missions?

RQ3. Utilizing quantitative and qualitative data, how may Christian organizations apply the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions) to recruit Christian dentists for dental, short-term missions that serve under-resourced people?

Research Design and Methodology

A mixed-methods, phenomenological design combined quantitative and qualitative approaches in a single study to

> complement each other by providing results with greater breadth and depth. Combining *what* with *why* adds power and richness to your explanation of the data. With quantitative methods, you can summarize large amounts of data and reach generalizations based on statistical projections. Qualitative research tells a story from the viewpoint of the participants that provides rich descriptive detail. (Roberts, 2010, p. 145)

After a literature search of over 250 STM resources, this researcher gleaned the major ideas that could be categorized into the six, holistic dimensions and led to the creation of the research instrument. The statistical outcomes concerning the benefits and the detractors of dental STMs from the 395 returned, quantitative, research instruments were followed by 60 qualitative interviews with STM-experienced dentists that brought rich descriptions of dental STMs and recommendations for the recruitment of dentists for dental STMs.

Quantitative design and methodology. This researcher first collected data utilizing a research instrument (Appendix A) with a "religious affiliation" reporting area. The random sample of self-identified, Christian dentists at CDS dental convention, exhibit booths, dental outreaches, and through member lists from CDS, CMDA, WDR, and other Christian, missionary organizations provided contact information and the research instrument was e-mailed to

participants. The 395 research instrument results were used quantitatively to determine Christian dentists' perceptions concerning the benefits and the detractors acquired from STM involvement relating to the six, holistic dimensions—the spiritual, intellectual physical, moral, emotional, and social categories. Each of the six areas was represented by six statements on the one-page, research instrument of 36 statements. Creswell (2014) validates the research instrument method as a chosen research design because the results "provide a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (p. 155). Blank lines were available for spontaneous input and demographic information was collected.

The quantitative data was primarily a trend-setting tool documenting the dentists' convictions (on a Likert scale ranging from "strongly agree" to "strongly disagree") concerning the benefits and the detractors to dental STMs. The data analysis used statistical Means to calculate average responses, Sample Standard Deviations to measure variations, and Standard Error of the Mean at the 90% confidence level for graphic visualizations of the outcomes.

Setting for quantitative research. Contact information was gathered at the major, dental conference, exhibit halls where dentists walked by a CDS recruitment and educational booth. These exhibit booths sell and promote dental products and services, engaging the 15,000 to 50,000 attendees (depending on the location of the convention) who participate in the two-to-four (nine-hour) days that the exhibit hall is open. The quantitative research instruments were then sent by e-mail or with stamped, researcher-addressed envelopes to Christian dentists, who may or may not have experience with dental STMs, and were taken at the respondents' convenience and returned by e-mail to the researchers' personal computer or mailbox. Some research instruments taken on-site at the dental convention booths were immediately secured.

Qualitative design and methodology. The qualitative interviews were focused on 60, STM-experienced dentists after they each responded to the quantitative research instrument. Those dentists with three of more STMs had indicated on the research instrument interest in helping with more in-depth information through an interview concerning the benefits and the detractors of dental STMs and recommendations for the recruitment of dentists for dental STMs. Leedy & Ormrod (2019) endorse interviews stating, "phenomenological researchers depend almost exclusively on lengthy interviews . . . with a small, carefully selected sample of participants . . . who have had direct experience with the phenomenon being studied" (p. 233). This is precisely what this researcher found that captured the best information about dental STMs—by connecting with highly, STM-experienced dentists.

Setting for qualitative research. The setting for the qualitative interviews occurred twice in face-to-face encounters which were held at a neutral location without distractors. The other 58 dentists lived in varied demographic areas of the U.S. and the interviews were, by necessity, held on the telephone where times were arranged when neither party was disturbed by other people during the approximately 20-minute, recorded interview. The interviewee was informed concerning the taping on the Evistr Digital Voice Recorder and the qualitative interview asked what each Christian, STM-experienced dentist believed were their benefits and detractors concerning dental STMs and their recruitment suggestions for obtaining volunteers for dental STMs. The respondents' answers were transcribed and subsequently coded into the 36 areas identified by the researcher as benefits or detractors that were consolidated from the literature search and that provided the 36 statements of the quantitative, research instrument.

Populations

Quantitative Population for the Research Instrument

In 2018, the dentists working in dentistry in the United States totaled 199,486, according to the American Dental Association (2019). Pew Research Center (2015) identified Christians at a total of 67.4% of the U.S. population, including Evangelical Protestant (25.4%), Mainline Protestant (14.7%), Historically Black Protestant (6.5%), and Catholic (20.8%). Therefore, when calculating 67.4% of the total number of dentists in the U.S., it is computed that 134,454 dentists would be Christian according to the Pew Research proportions. This is a quota sampling, defined as a selection of subjects in the same proportion found in a population. Using the current formula at Survey System, a sample size of 383 representative, Christian dentists was the goal for receiving statement evaluations from the research instrument. That would allow for a confidence level of 95% with a confidence interval of five. It is documented by Survey System that "Most researchers use the 95% confidence level." The confidence level represents how often the true percentage of the population would pick an answer which lies within the confidence interval—which identifies the margin of error. The confidence interval is the plus-or-minus figure usually reported in research results.

The research sampling frame for the quantitative research instrument involved a single-stage, simple sampling through research instruments (either e-mailed instruments or paper-copy instruments) utilizing members from the CDS, the CMDA, WDR, and other organizations that have volunteer, Christian. dentist contacts. Accessible dentists who self-identified as Christians at regional, dental conventions and humanitarian dental events were asked for contact information so that research instruments could be e-mailed to them or sent with a stamped, researcher-addressed, return envelope to them (See Appendix E). The conferences where the

dentist contact information was accessed represented U.S. regional perspectives: the American Dental Association Convention in San Francisco, California with 10,000 dentists; the Chicago, Illinois Midwinter Dental Convention (Midwestern) with 10,000 dentists; the Greater New York Dental Convention in New York City (Eastern) with 21,000 dentists; the Rocky Mountain Dental Meeting in Denver, Colorado (Western and Central) with 1500 dentists; the Texas Dental Convention in Dallas (Southern) with 1500 dentists; and the Yankee Dental Convention in Boston, Massachusetts (Eastern) with 10,000 dentists;. This researcher has experience in conducting Christian Dental Society booths at over 30 different dental conventions across the United States during the last five years. She finds that most dentists are helpful and will engage in discussions about STMs.

The demographics of the Christian dentists were obtained, including ages, genders, states of residence, the number of dental STMs previously experienced, and religious affiliations. Ethnicity was not a significant factor or concern in this study—all humans are equal and loved without bias in God's eyes (Lev. 19:33-34, Acts 10: 34-35, Rom. 2:11, Gal. 3:28). The dental conventions often include international dentists, pre-dental students, dental hygienists, and/or non-dentist personnel, but the study only included Christian dentists (both U.S. and international Christian professionals) since that is the target recruitment group for Christian, dental STMs.

Qualitative Research Interview Population

Qualitative research interviews (Appendix B) followed the quantitative research instruments with personal interviews of 60 Christian, STM-experienced dentists—about 15% of those respondents who participated with the research instrument—and who have led or participated in at least three, Christian, dental STMs. These 60 dentists were highly STM-experienced dentists who averaged 55 STMs each. Interviews with Christian dentists were

chosen from among diverse demographics and assorted Christian, denominational backgrounds. Non-random, purposive sampling was used to select the STM-experienced dentists. This follows recommendations from Galvan & Galvan (2017) that "researchers strive to use *purposive samples* . . . based on the careful judgment of the researchers regarding the types of individuals they consider to be good sources of data for a particular research topic" (p. 82).

This phenomenological approach, defined as the study of lived experience in a given constructivist phenomenon has a research focus involving "the perceptions and the perspectives relative to the particular situation" (Creswell, 2014, p. 14; Leedy & Ormrod, 2019, p. 417). In this research, highly, STM-experienced dentists were questioned concerning the benefits and the detractors of dental STMs as these factors relate to recruitment considerations. Moustakas (1994) emphasizes that "Through a phenomenological design, the research seeks a relatively small number of participant experiences to analyze for patterns of meaning and experience" (p. 48). This researcher's use of phenomenology was applied to the understanding of retroactive data from the lived experience of the STM-experienced dentists.

Limitations of Generalization

Role of the Researcher

Although the passion and interest this researcher has held through her 25 years of experience in dental STMs was an asset in this research, she was fore-warned to stay as impartial in the interviews as possible, following the advice of Leedy & Ormrod (2019): "Actively restrain yourself from forming any a priori hypotheses about what you might find in your own study" (p. 234). This researcher has participated in 60 dental STMs to 35 different countries and is currently on the Advisory Council of the CDS, a 501(c)3 non-profit ministry organization where volunteer members educate, equip, train, and encourage over 500 dental STMs annually. This

researcher's husband is the full-time, volunteer, Executive Director of the CDS and together they have authored three, nonfiction books on dental STMs. This researcher has written or consulted on journal/feature articles concerning dental STMs and speaks regularly at dental conventions concerning the "why and how" of doing dental STMs. This researcher believes this focus on dental STMs is God's calling and is motivated to continue pursuing education, leadership, and recruitment excellence in this field since there innumerable opportunities to use physical healing to open doors for spiritual healing.

The trustworthiness of the researcher, Diane, must be established in a qualitative study and this researcher desires to tell her story to demonstrate credibility in this research field of dental STMs. Diane felt called as an eight-year-old child to global, missionary work and obtained her Bachelor's Degree in Nursing and later a Master's Degree in teaching. After marrying Bob, a dentist, they decided 25 years ago to serve on dental STMs as God opened the doors. For about 17 years, Diane and Bob sporadically did STMs, but two events changed that to full-time mission work starting eight years ago.

Diane was diagnosed with cancer, which resulted in God's healing after extensive chemotherapy and surgery. It was during her recovery time that she spent her days writing their dental stories (*Truth, Teeth, and Travel: Heartwarming, Adventurous Journeys into Fascinating, Exotic Cultures, Vol. I & II,* 2013 published by OakTara, where the Meyers' editor was formerly a senior editor of Tyndale House Publishers). A year later, as Diane felt fully-recuperated and was looking for direction in her life, she opened a devotional book that instructed (in all capital letters): FIND A NEED AND FILL IT! Bob came home from work that day and told Diane of the need for leaders for the non-profit, dental organization, the CDS. Diane informed Bob that

God had given his instructions to her that morning in the devotional book and Bob took over the Presidency of the CDS with Diane's assurances of support and assistance.

Several busy years passed as Bob worked in his private, dental office and they attended to the myriad needs of leading the CDS and multiple, dental STMs. Diane was praying about their overworked schedule, and the Lord extricated Bob from his dental practice through a retinal, eye detachment that sidelined him from dentistry for a year. Diane and Bob realized that God was working and they were able to finish the *CDS Dental Mission Manual for Portable, Short-Term Dental Trips* (2015) during his eye recovery time. Diane and Bob have continued to serve the Lord full-time in the CDS through dental STMs, dental recruitment at CDS exhibit booths at major dental conferences, and through writing on dental, STM topics.

It was God's leading that brought Diane to the Liberty University CLED program and Diane can say with confidence that it is the Lord who has given dental STM experience, confidence, knowledge, and organizational connections to complete this dissertation study. It is this trustworthiness as a researcher that Diane submits to the dissertation audience—with the help of (1) God (through prayer); (2) Drs. Stephen and Mary Lowe (Dr. Stephen, the Liberty University Dissertation Supervisor with his theological and theoretical background and Dr. Mary, the Dissertation First Reader with her Christian and Haitian missionary experiences), (3) Dr. Gary Bredfeldt (Liberty University EdD in Christian Leadership Program Director); (4) Dr. Bob Meyer, Diane's STM-experienced husband; and (5) many STM-experienced, dentists.

Quantitative Limitations of Generalization

A quantitative limitation of this study is that it utilized only Christian dentists, although that is an appropriate population since the study audience is targeted to a Christian dentist

demographic. This limitation was minimalized since the quota sampling was proportionate to a 95% confidence level and a confidence interval of five.

Other limitations might have involved the length of the study, the response rates, the environmental context, the lack of demographic variabilities and the researcher's ability to draw correct inference from the data. However, this researcher mitigated those issues by pursuing large response rates (395 research instrument participating dentists and 60 STM-experienced dentist interviews), excellent environmental contexts (the research instruments and interviews occurred in private settings), and a wide range of feedback from Christian dentists in differing demographical categories of gender, age, STM experience levels, locality, and denominational backgrounds; the dentists represented 15 countries, 44 states, 43 church denominations (see Figure 2, Tables 2 and 3).

Most of the factors under consideration as benefits or detractors for Christian, dental STMs might also be applied to Christian STM medical endeavors and other Christian, non-medical/non-dental STM teams in the U.S. and other countries.

Qualitative Limitations of Generalization

The qualitative research could bring limitations because it builds upon the experiences of Christian, STM-experienced dentists and has a smaller sample size than the quantitative dentist participants, although the study is targeted to a demographic of Christian dentists. The 15% interview proportion of the dentists from the quantitative research instrument is a significant sample. There is also the concern that the researcher has possible biases, even though she followed the advice of Leedy & Ormrod (2019) to "try to suspend any preconceived notions or personal experiences that may unduly influence what [the researcher] 'hears' participants say" (p. 233). It is encouraging to note these comments from Schram (2006) concerning a topical-

experienced researcher: “Your task, both derived from and constrained by your presence, is thus inherently interpretive . . . It is not necessary (or feasible) to reach some ultimate truth for your study to be credible and useful” (p. 134 as cited by Leedy & Ormrod, 2019, p. 242). This researcher was primarily interested in the study outcomes for its use in recruiting dentists for STMs and strove for impartiality, and open-ended, non-steered, unguided questioning, with—as far as possible—impartial interpretations to obtain the most accurate data possible.

Another limitation included the variable of self-awareness and accurate self-reporting by the participants. Since the study focused on the perception of dentists concerning their developmental experiences, their insights may have had limitations and their degree of memory and self-reporting may have some discrepancies since some dentists were older, retired, or several years removed from their STM encounters (Goleman et al., 2013).

Leedy & Ormrod (2019) laud “qualitative studies for their generalizability and applicability due to their naturalistic, real-world setting vs. artificial, laboratory-based research methodology” (p. 95). The authentic sample from different demographics and the ability to replicate the results in different contexts of volunteering may provide opportunities for further, transferable research concerning volunteer situations in other Christian fields. Most of the factors being considered as benefits or detractors for dental STMs might also be applied to Christian STM medical endeavors and other Christian, non-medical/non-dental STM teams in the U.S. and in other countries.

Ethical Considerations

General Ethical Considerations for Quantitative and Qualitative Research

The researcher followed all Institutional Review Board (IRB) guidelines from the Collaborative Institutional Training Initiative (CITI), including the key ethical concepts and

principles (virtues) of "integrity, honesty, transparency, competence, collegiality, social responsibility, respect for persons, and informed consent. Beneficence, which obligates researchers to protect and uphold the well-being of others, justice, and fairness also was pursued" (Belmont Report, 1979). All IRB proposals were submitted to and approved by the IRB before any data was collected. The consents are shown in the Appendices and document all of these necessary procedures (Appendix C: Recruitment Letter; Appendix D: Consent Form for the Research Study; Appendix E: Introductory Script for Dental Conference Exhibit Hall Booths; Appendix F: IRB Consent Form Approval; and Appendix G: IRB Approval).

Since all participants of this research were mentally competent, doctoral-level, educated, and 22 years or older, the participants easily understood the research process after appropriate, informed consent was provided. They had either given or been included in prior research surveys. The decision for the dentists' autonomous involvement was entirely voluntary with the freedom to discontinue the quantitative research instrument and the qualitative interview at any time. The participants were told that "the research outcomes will provide a benefit to the dental community under the topic of *Recruitment Consideration for Christian, Short-Term Dental Missions Relating to Dentists' Holistic Development."*

All data collected was confidential and without identifiers unless the respondent desired to provide contact information on the quantitative research instruments for possible involvement in in-depth qualitative interviews. The contact information was cut off the research instruments after the researcher printed them off her personal computer and the contact information was placed in a separate, locked drawer away from the stacked research instruments, which were tabulated anonymously later. There was no compensation other than the participant's knowledge that they had aided non-profit, Christian, STM organizations in discovering the benefits and the

detractors for dental recruitment for dental STMs. There was no deception inherent in the research processes, and no conflicts of interest, conscience, or commitment.

For all aspects of the study, these recommendations were followed: "informed consent, protection from harm, and confidentiality . . . to protect participants from stress, discomfort, embarrassment, invasion of privacy or potential threat to reputation" (Madsen, 1992, p. 80, as cited in Roberts, 2010, p. 32; Sieber, 1998). This researcher also complied with the advice of Israel & Hay (2006): "Researchers need to protect their research participants; develop a trust with them; promote the integrity of the research's guard against misconduct and impropriety that might reflect on their organizations or institutions" (as cited in Creswell, 2014, p. 92).

Additional Quantitative Ethical Considerations

Legally-informed consent was established using the IRB template. Since the research instrument respondents evaluated the statements online or on paper copies at the CDS exhibit booths, or received them by mail with researcher-addressed, stamped envelopes, the research instruments came back exclusively to the researcher. They were printed off of the researcher's personal computer, any personal identification was cut off, and they were piled for later anonymous tallying. They will remain locked in a file drawer until the three-year, holding time is over, after which time they will be shredded.

This researcher used 60 STM-experienced dentists from the quantitative research instruments for the qualitative interviews; therefore, to ensure that confidentiality was not compromised, she followed Leedy & Ormrod (2019), who suggested that the participants in the quantitative research instrument collection be given "the option of participating—voluntarily—in a second, follow-up part of the study by supplying a place for contact information on the . . .

research instrument" (p. 273). This option was provided on the quantitative research instrument (Appendix A).

Additional Qualitative Ethical Considerations

Although transcript recording occurred with the interviews, it was only shared anonymously in the reporting of the data. Legally-informed consent was established verbally at the beginning of the interview (Appendix B) with the statement: "The completion of the recorded interview will be taken as your consent to use the interview data." The dentists would have been allowed to withdraw at any time from the interview, although none took that option. They were informed that the recordings would only be heard by the researcher.

All data were stored in locked files and interview responses were transcribed by paper-and-pen transcription and coding; all interviews will be erased from the recorder and papers will be shredded after the three-year, holding period.

Data Collection Methods

Quantitative Research Procedures

The quantitative portion of the mixed-methods research design focused on the research instrument (Appendix A) and could be replicated. The research instrument was e-mailed to self-identified, random, Christian dentists who were identified at dental conference exhibit booths in 2019/2020 and who were recruited through membership lists of the CDS, the CMDA, WDR, and through snowball sampling.

Utilizing the research instrument, the dentists were asked to evaluate the six-dimensional, holistically-designed statements according to the Likert scale (Appendix A) and were advised that it would take around 8-10 minutes for completion.

Constructed from the theoretical substance of Piaget (1973), Kohlberg (1984), Erikson (1980), Fowler (2000), Lowe & Lowe (2018) and others, the developmental, psychologically-integrated theory that guided this study's quantitative research instrument provided the framework to discover what holistic elements of dental STMs are benefits or detractors for dentists. The research instrument items that were highlighted were also culled from this researcher's 25 years of experience on 60 dental STMs, five years of 30 dental conference, STM-recruitment booths, from STM-experienced dentists, and from extensive, general STM and volunteer literature (although there is little literature that addresses *dental* STMs).

The quantitative research instrument (Appendix A) asked Christian dentists to evaluate why they might serve on a dental STM using a Likert-styled, gradated structure to assess statements concerning dental missions. The research instrument included six statements per each developmental area—three reflecting benefits and three based on detractors—of the six components: spiritual, intellectual, physical, moral, emotional, and social dimensions.

Qualitative Research Procedures

The qualitative portion of the study is not as easily replicated as the quantitative research instrument. The outline for the qualitative interviews (Appendix B) is open-ended, subjective, and based on the competence of the interviewer to elicit and to capture the dentists' expertise. Few interviewers would have a passion for STMs, the 25 years of STM, lived experience, and the literature research base that this researcher has experienced in her Christian endeavors. Therefore, the trustworthiness in the replication of this qualitative research by any other given researcher may not match the aptitudes of this qualitative researcher. Roberts (2010) emphasizes the importance of this: "The researcher is the instrument . . . trustworthiness depend[s] on the

researcher's skill and competence" (p. 144). For a further amplification on the researcher's credibility, please see the "Role of the Researcher" section on pp. 133-134.

The qualitative interview content (Appendix B) occurred after the quantitative research instruments. The qualitative portion of the study utilized 60 STM-experienced dentists—the average number of trips by each interviewee was 55 STMs. The interviews explored the dentists' lived, STM experiences and the emphasis was on the benefits and the detractors they had personally encountered on STMs and the recommendations they had for featuring the benefits and addressing the detractors of dental STMs for a dentist, STM recruitment.

Since the mixed-methods study involved the use of the quantitative, data-collection research instrument before the qualitative, phenomenological interviews (Creswell, 2015; Leedy & Ormrod, 2019; Polkinghorne, 1989; Roberts, 2010), the dentists' research instrument experience helped to prepare for the interviews.

The dentists were informed that the interviews would be recorded, that the researcher alone would hear the recordings, and that the responses would remain anonymous in any written outcomes. The data requested during the recorded interview would have subjective aspects as it was gathered in the narrative form. In the interviews, this researcher attempted to elicit responses following the suggestion of Moustakas (1994): "The way a person lives, creates, and relates in the world is the concrete and dynamic reality phenomenology seeks to unearth" (p. 48).

This researcher collected STM-experienced dentists' responses concerning the STM benefit, detractor, and recruitment aspects following the qualitative interview definition by Bredfeldt (2018): "a method used when the researcher wants to say something about phenomena, a few select cases to answer 'how' and/or 'why questions . . . using 'informants' that tell us about the representative group" (CLED Class Presentation, Module 4). This researcher imitated

the qualitative questioning that Creswell (2014) demonstrates which focus on learning "the meaning that the participants hold . . . researchers try to develop a complex picture of the problem under study . . . reporting multiple perspectives, identifying the many factors involved in a situation, and generally sketching the larger picture that emerges" (p. 186). These questions were grounded in the theoretical basis of the six dimensions of developmental psychology.

Proposed Quantitative Instrumentation

The dissertation's research instrument had an organizational outline which followed the six, developmental categories with six statements for each area given randomly in the research instrument—three statements for each dimension's benefits and three statements for each dimension's detractors for a total of 36 statements on the research instrument.

The germination of the idea for a research instrument to reflect the Lowe & Lowe (2018) developmental dimensions (p.18) was instigated from the seminal research on volunteerism by Clary et al. (1998), who used a functional, theoretical approach which this researcher found repeatedly in the literature concerning the motivations of volunteers. Clary et al. (1998) hypothesized six functions potentially served by volunteerism and designed a research instrument to assess these functions—the Volunteer Functions Inventory (VFI). The six functions Clary et al. (1998) included that motivated volunteerism were (1) protective, (2) values, (3) career, (4) social, (5) understanding, and (6) enhancement.

After noting the example from Clary et al. (1998), this researcher realized that the six dimensions of holistic development could also be evaluated using statements that were related to the six Lowe & Lowe (2018, p. 18) categories being utilized in her study—the spiritual, intellectual, physical, moral, emotional, and social categories. Listed below are the concepts in each of the six dimensions that this researcher discovered through the literature search of 250+

STM resources, her 25 years of STM experience, and from the feedback of STM-experienced dentists. The associated research instrument statements were randomly placed in the research instrument (Appendix A) for participant responses, utilizing three benefit statements and three detractor statements for each of the six dimensions—for a total of 36 evaluative statements.

Table 1: Organizational Chart with Spiritual (Sp), Intellectual (I), Physical (P), Moral (M), Emotional (E), and Social (So); Benefit (B) and Detractor (D) Dimensions Using Three Different Concepts (1,2,3)

	Benefit and Detractor Dimensions	Associated Research Instrument Statement
SpB1	Following Mandates and Calling	I feel a calling to dental, short term missions.
SpB2	Spiritual Preparations and Outreach	Sharing my faith is important to me.
SpB3	Personal and Spiritual Growth	I desire to receive spiritual growth on missions.
SpD1	Differing Doctrines and Beliefs	Discussing differing beliefs upsets me.
SpD2	Restrictive and Persecution Situations	Sharing religious views feels too risky in other cultures.
SpD3	Disturbing Awareness of Sin and Evil	Confronting sin and evil disturbs me.
IB1	Cultural and Travel Adventures	I like adventure and travel.
IB2	Mission and Career Experience	I relish learning through new experiences.
IB3	Educational and Mentorship Interchange	I like dental teaching and mentoring.
ID1	Dealing with Planning and Change	Adjusting to change is difficult for me.
ID2	Personal and Aggrandizement Motives	I'm bothered if people boast about volunteerism
ID3	Dental Provider Inexperience Controversies	I have little tolerance for inexperienced dental providers.
PB1	Improvement for Health and Aging	Dental volunteerism helps to revitalize me.
PB2	Safe and Comfortable Missions	Dental trip benefits outweigh the discomforts.
PB3	Therapeutic Touch Impacts Ministry	Physical contact warms my heart on missions.
PD1	Challenges, Constraints, Risks, Discomforts	The risks and hardships impact my involvement.
PD2	Evaluating Myriad STM Costs	Mission expenses are too high for me.
PD3	Enduring Excess Patient Expectations	Excessive, unmet dental needs overwhelm me.
MB1	Purposeful, Significant, Moral Duties	Doing right, despite sacrifices, compensates me.
MB2	Giving Back to People	I like to help disadvantaged people everywhere.
MB3	Honor, Respect, and Social Justice	Differing familial and social values intrigue me.
MD1	Ethical and Moral Concerns	Differing team member behaviors/standards conflict me.
MD2	Dealing with Poverty Issues	My priorities don't include STMs overseas.
MD3	Compromised Standards of Care	Doing quality, portable dentistry seems overwhelming.
EB1	Joyful, Positive, Empathetic Living	I find it emotionally uplifting to help people.
EB2	Self-esteem and Self-actualization	Dental mission trips personally fulfill me.
EB3	Overcoming Diverse, Troublesome Emotions	Gaining new perspectives on my life is helpful.
ED1	Disturbing STM Emotional Reactions	A STM would be out of my comfort zone.
ED2	Compassion Fatigue and Burnout	I often feel guilt, being more blessed than others
ED3	Cultural Dissonance and Re-entry Issues	Adjusting to change is difficult for me.
SoB1	Inspiring and Encouraging Followers	Influencing others is a goal of my mission activities.

SoB2	Fostering Relational, Teamwork Benefits	Working on a team is rewarding for me.
SoB3	Relationships with Nationals/Missionaries	I embrace socializing and relationship building
SoD1	Teamwork and Interpersonal Conflicts	Group dynamics are a major stressor on missions.
SoD2	Burdening Nationals and Missionaries	Sending money for missions is better than sending teams.
SoD3	Home Responsibilities and Concerns	My family and friends don't encourage my mission trips.

The concepts of reliability, validity, trustworthiness, credibility, confirmability, and transferability are vital to establishing a mixed-methods research study. Quantitative validity and reliability will be discussed in this quantitative instrumentation section and qualitative validity, trustworthiness, credibility, and transferability will be addressed in the qualitative instrumentation section below.

Validity

Quantitative validity entails the degree to which the research instrument consistently measures what it purports to measure—in this case, the benefits and the detractors of dental STMs. Leedy & Ormrod (2019) give this advice in establishing validity: "Take steps to ensure that their [researcher's] analyses and interpretations will ultimately be credible and defensible in the eyes of colleagues and other well-informed "individuals. Such steps include the following: Triangulate multiple data sources" (p. 356).

This researcher ensured triangulation while creating the quantitative research instrument by (1) assimilating over 250 STM literature resources; (2) utilizing 25 years of personal, STM experience, and (3) adding professional input given by STM-experienced dentists.

Assimilation of STM literature resources. This researcher has conducted detailed research for three, co-authored books on STMs (CDS Members, 2015 and Meyer & Meyer, 2013, Volumes I & II) and other professional journal articles on the subject (see References under Meyer & Meyer). These writings on STM topics has brought eight years of research

experience on the topic of STMs by this researcher and fulfills Leedy & Ormrod's (2019) idea of "collecting data until you have completely saturated the categories—that is until you are no longer gaining new insights about the phenomenon of interest" (p. 357).

The STM resources show what Leedy & Ormrod (2019) recommend as "content validity [which] is the extent to which an assessment instrument . . . adequately reflects the full breadth of the characteristic being assessed . . . people's *achievement* in some area—typically using either paper-and-pencil instrument" (p. 104). These numerous STM resources did enable the creation of a research instrument that had breadth in reflecting 36 statements (three benefits and three detractors in each of the holistic, six-dimensions being explored). The over 250, STM-related resources were assimilated by this researcher and used to create the research instrument.

Further content validity occurred as Leedy & Ormrod (2019) verified that "an assessment tool has high content validity if its items . . . reflect the various parts of the content domain in appropriate proportions" (p. 105). This occurred as the distribution of the statements in the research instrument of this study was equal and balanced and the information gleaned for the research instrument's design was enabled by the STM literature search.

Utilization of the researcher's STM experience. In addition to published writings on STM topics, this researcher has garnered STM experience through 60 STMs to 35 countries and through manning 30 dental convention, exhibit-hall booths—which involved over 100 days of talking with STM-experienced dentists. Certainly, biases could occur through this researcher's experience, which was addressed in the "Role of the Researcher" (p. 133). Creswell (2014) uses a researcher's familiarity with the field of study positively by advocating,

> *Spend a prolonged time* in the field. In this way, the researcher develops an in-depth understanding of the phenomenon under study and can convey detail about the site and the people that lends credibility to the narrative account. The more experience that a

> researcher has with participants in their settings, the more accurate or valid will be the findings. (p. 202)

Addition of professional input given by STM-experienced dentists. With over 25 years of contact with STM-experienced dentists, this researcher has gathered many ideas on the topic of the benefits and the detractors of dental STMs. In preparation for the creation of the research instrument, this researcher had frequent conversations with numerous, demographically-varied, Christian dentists who gave invaluable, expert advice on the STM topics that applied to the categories examined by the research instrument. This fulfilled Leedy & Ormrod's (2019) suggestion to "seek feedback from both participants and professional colleagues" (p. 357).

The research instrument suggested validity in that it consistently measured what it purported to measure—in this case, the benefits and the detractors of dental STMs that were designed to measure the "specific intended domain of content being tested" (Bredfeldt, 2018, CLED Class Presentation Module 5).

The fact that the study was delimited to Christian dentists, consistent in educational levels and professional qualities, shows greater validity because the outlooks of non-Christians would possibly be quite different and would skew quantitative results if the entire population of dentists in developed countries would have been represented. Some research instruments were disqualified from the study because the orientation of the dentists was not Christian—this researcher noted the divergence of those results, especially on the statements evaluating spiritual and moral dimensions.

Reliability

Reliability involves the degree to which the research instrument results consistently measures something from one time to another. Using the current formula on Survey System, 383 representative, Christian dentists was the goal for receiving statement evaluations from the

research instrument. That would allow for a confidence level of 95% with a confidence interval of five. Since 395 research instruments were received, the confidence level and interval were achieved. (It stated on Survey System that "Most researchers use the 95% confidence level.")

For the establishment of rigor and quality for the study instruments, the researcher followed a process where the Mean, the Sample Standard Deviation, and the Standard Error of the Mean at the 90% confidence level were calculated for the results of each statement. The benefit statements on the research instrument (see Table 4) resulted in Sample Standard Deviations (SSDev)—all less than 1, and the Standard Error of the Means (SEM)—all less than .071; these calculations demonstrated a high level of consistency in the responses. There was slightly less consistency in the responses on the detractors of dental missions in that the Sample Standard Deviation and the Standard Error of the Mean were larger (see Table 5), but not significantly high to detract from the reliability of the research instrument.

Also, to promote reliability, each of the six, holistic dimensions being evaluated had six statements (three benefit statements and three detractor statements) that applied to that particular dimension; this validated consistent patterns in the dentists' attitudes and perceptions for each given category. The varied aspects of each dimension could be assessed more completely by having six statements to evaluate; all six were statistically analyzed both individually and as a group of statements in each category.

The trends documented by the quantitative, research instrument were encouraging, not only in the positive outcomes toward dental STMs (with detractors shown to be insignificant in keeping dentists from STM participation) but also in the consistency of the 395 respondent's evaluations of the research instruments' statements. The research instrument also offered the spontaneous addition (in the form of an "other comments" category) for each participant to

provide further responses. The comment area of the research instrument was used by over half of the dentists to bring clarification to various items that piqued their interest in the 36 categories of STM benefits and detractors that were being evaluated. These additional comments brought further reliability to the research instrument as individual comments by the participants could be registered. The beauty of the mixed-methods research approach is that the qualitative interviews also added more depth to the understanding of the quantitative research instrument themes.

Proposed Qualitative Instrumentation

The qualitative interviews focused on the amplification of 60, STM-experienced dentists' responses of their quantitative, research instrument results. The interview areas covered the six holistic dimensions (Appendix B), with a focus on recommendations the STM-experienced dentists might have for featuring the benefits or addressing the detractors in the recruitment for STMs. They were asked to describe the lived experiences of dental STMs and the researcher factually asked non-leading questions for clarification.

Validity

Leedy & Ormrod (2019) define qualitative validity as a strategy that "yields an accurate assessment of the characteristic or phenomenon in question" (p. 104), in this case the benefits and the detractors of STMs as they relate to the recruitment of dentists for Christian, dental STMs. The research study suggests validity through the phenomenological, mixed-methods design which provided the overlap and the assurance of correlative results that occur "when multiple sources of data are collected with the hope that they will all converge to support a particular assertion" (Leedy & Ormrod, 2019, p. 93). Because the mixed-methods approach provides a multi-dimensional range of outcomes, Leedy & Ormrod (2019) validate the research to the extent that other people "(a) agree that the design and methods are appropriate for the

research problem or question, (b) judge its results as being reasonably accurate and trustworthy, and (c) find the researcher's interpretations of the data to be plausible" (p. 93).

Roberts (2010) recognizes that "in qualitative studies, techniques such as triangulation . . . are used to validate findings" (p. 161). Leedy & Ormsrod (2019) define triangulation as "pulling together two or more different sets of data to determine whether they lead to similar conclusions" (p. 104). This mixed-methods, research approach triangulated in these three areas: (1) the literature search results identified and reported in Chapter Two; (2) the quantitative research instrument evaluated in the previous section for validity and reliability; and (3) the validity of the qualitative interviews which will now be assessed. The triangulation assurances reflect Creswell's (2014) recommendation to

> Triangulate different data sources of information by examining evidence . . . build a coherent justification for themes. If themes are established based on converging several sources of data of perspectives from participants, then this process can be claimed as adding to the validity of the study. (p. 201)

To maximize trustworthy outcomes, the qualitative data was obtained from highly-experienced, STM dentists who had first taken the quantitative, research instrument and then volunteered for the in-depth interviews to discuss the research topic. *Face validity* was recognized by Leedy & Ormrod (2019) as "useful for ensuring the cooperation of people who are participating in a research study. But . . . relies entirely on subjective judgment" (p. 104). This researcher did assess who would be involved in the qualitative interviews based on their demographics, personal qualifications that were often known to the researcher (who has contact with many STM dentists), and the number of STMs they had done—which showed expertise concerning the topic of STMs.

Trustworthiness

Trustworthiness in quantitative studies involves validity and reliability. However, in qualitative studies, this concept seems more obscure because qualitative researchers do not use instruments with established metrics of validity and reliability. Rather, Roberts (2010) states that "qualitative researchers often use the term *trustworthiness* to refer to the concept of validity" (p. 161). Dependability is important and defines the extent that the study could be repeated by other researchers and that the findings would be consistent. To replicate a study, researchers should have enough information from the research to do so and to obtain similar findings.

Credibility

Roberts acknowledges that "It's the credibility factor that helps the reader trust your data analysis" (p. 161). Credibility establishes how confident the qualitative researcher is in the truth of the research study's findings and reflects on how the outcomes are known to be true and accurate. Credibility essentially asks the researcher to link the research study's findings with reality to demonstrate the truth of the research study's findings. Triangulation and member checking are the two most important techniques.

Triangulation involves using multiple methods, data sources, observers, or theories to gain a more complete understanding of the phenomenon being studied. Credibility concepts verify that the research findings are robust, rich, comprehensive, and well-developed. Creswell (2014) concurs that researchers use

> *rich, thick description* to convey the findings. This description may transport readers to the setting and give the discussion an element of shared experiences. When qualitative researchers provide detailed descriptions of the setting, for example, or offer many perspectives about a theme, the results become more realistic and richer. This procedure can add to the validity of the findings. (p. 202)

Leedy and Ormrod (2019) also recommend "*Member checking*, in which a researcher asks participants to review interview transcripts to double-check their accuracy; sometimes a researcher also seeks participants' feedback and possible validation regarding findings" (p. 241). This was not a possible feature of this study since most of the interviewees lived far from the researcher.

Confirmability

Confirmability is the degree of neutrality in the research study's outcomes, assuring that the findings are based on individual responses and not any potential bias or personal motivations of the researcher. This involves making sure that researcher bias does not skew the interpretation of what the research participants said to fit a certain narrative. Creswell (2014) advises researchers to

> clarify the *bias* the researcher brings to the study. This self-reflection creates an open and honest narrative that will resonate well with readers. Reflectivity . . . contains comments by the researcher about how their interpretation of the findings is shaped by their background, such as their gender, culture, history, and socioeconomic origin. (p. 202)

This advice was followed in the "Role of the Researcher" (p. 133). To establish confirmability, qualitative researchers can provide an audit trail, which highlights every step of data analysis that was made to provide a rationale for the decisions made. This helps establish that the research study's findings accurately portray individual responses. This researcher has provided a confidential audit trail and her data will be made available for review by other researchers upon request. This researcher can track the process and procedures she used to collect and interpret the data.

Leedy & Ormrod (2019) recognize that *construct validity*

> yields credible results regarding a characteristic that cannot be directly observed but is assumed to exist based on patterns in people's behaviors . . . when researchers . . . ask

> questions . . . as a way of assessing an underlying construct, they should obtain some kind of evidence that their approach does assess the construct in question. (p. 105)

By assessing the results of the study to reflect credible results, this researcher does trust that the dentists thoroughly confirmed the study's outcomes do to the mixed-methods approach that utilized both quantitative and qualitative data with large sample sizes of each. The goal of this researcher was to follow Leedy & Ormrod (2019), who further state that researchers adhere to the standard of confirmability when they make a "concerted effort to base their conclusions on their *actual data* as much as possible—and to describe their data-collection and data-analysis processes in considerable detail—such that other researchers might draw similar conclusions from similarly collected and analyzed data" (pp. 239-240). This researcher expended conscientious effort to collect, report, and analyze the data. Therefore, conclusions and parallels were drawn in the mixed-methods approach that leads to the confirmability of the results. The triangulation of the STM literature results, the quantitative research tool, and the qualitative interviews makes the confirmability of the study results well-substantiated and highly plausible.

Transferability

Transferability demonstrates that the research study's findings apply to other contexts. Leedy & Ormrod (2019) consider that transferability occurs when researcher's "describe their data-collection and data-analysis process in considerable detail—such that other researchers might draw similar conclusions from similarly collected and analyzed data" (pp. 240-241). Other contexts that may be used include similar situations, comparable populations, and corresponding phenomena. Qualitative researchers can use thick descriptions to show that the research study's findings can apply to other contexts, circumstances, and occurrences.

Transferability has been a goal of this research and the holistic model could easily be applied to other medical fields involved with mission work to developing countries, utilizing

various healthcare professionals as participants. The quantitative research instrument could be replicated, adapted, or modified quite easily to reveal statistical trends in other settings or occupational endeavors.

The transferability of the qualitative portion of the study is not as easily replicated as the quantitative research instrument. The outline for the qualitative interviews (Appendix B) is open-ended, subjective, and based on the competence of the interviewer to elicit and to capture the expertise of the STM dentists. Few interviewers would have this researcher's Christian experience or enthusiastic fervor for STMs that her 25 years of STM, lived experience has produced, or the literature, research base that this researcher has accumulated through her writing endeavors. Therefore, the trustworthiness in the replication of this qualitative research by any other given researcher may not match the aptitudes of this qualitative researcher.

This researcher is convinced that these mixed-methods aspects of validity, reliability, trustworthiness, credibility, confirmability, and transferability have been documented, explained, and applied to this research study. The triangulation of many STM resources that were culled and assembled, the large sample gathered for the 395 quantitative, research instrument responses, and the 60, qualitative interview subjects, brought many insights and perspectives to this robust, mixed-methods research.

Data Analysis

Quantitative Data Analysis and Statistics

The quantitative data was primarily a trend-setting tool demonstrating the dentists' convictions (on a Likert scale ranging from "strongly agree" to "strongly disagree") concerning the three benefits and the three detractors to dental STMs within the six developmental psychology dimensions. The data analysis used statistical means to calculate average responses

and sample standard deviations to measure variations which provided data for graphic visualizations of the outcomes for each of the six statements in the six holistic dimensions. The graphs document the relationships between the six dimensions of holism and illustrate the outcomes to answer RQ1. This researcher pursued the goal of quantitative methodology, described by Roberts (2010) as the ability to "summarize a large amount of data and reach generalizations based on statistical projections" (p. 145).

Qualitative Data Analysis and Coding

The categories of the study have been organized and identified as the six development psychology dimensions of holism: the spiritual, intellectual, physical, moral, emotional and social components. The coding from the in-depth, dentist interviews was placed under the appropriate dimension of these six categorizations and the three benefit and three detractor subunits. Answers to RQ2 are documented by the lived experiences and the quotes from STM-experienced dentists. The recruitment recommendations of RQ3 are listed in Chapter Five to identify the benefits, the detractors and the recruitment suggestions after the data was analyzed.

Personal or theoretical biases will be minimized by the awareness of this STM-experienced researcher as she categorizes and codes qualitative data; she followed the observation of Roberts (2010) that: "Qualitative analysis is a creative process and requires thoughtful judgments about what is significant and meaningful in the data" (p. 174).

The researcher sorted every recorded interview into smaller units, in the form of stories, sentences, or individual words. Each interview was reviewed several times and the smaller units were noted and re-checked. Classifications of each data unit occurred under the categories of the six holistic dimensions which were delineated into benefits and detractor subunits. The researcher, after individually categorizing the comments, compared the results for greater

trustworthiness. Each area was integrated and a summarization of the data was written. The results involved packaging the data into organizational lists that relate to this research study's goal of identifying the benefits and the detractors of dental STMs, along with the recommendations of STM-experienced dentists concerning the recruitment for dental STMs.

Chapter Summary

This chapter included a synopsis of the research methodology by incorporating the research problem, purpose, and questions. Further aspects identified the populations, limitations of generalization, the role of the researcher, ethical considerations, data collection methods, instruments, and data analysis.

This researcher believes that the outcomes of this mixed-methods, phenomenological study are significant because it utilized the combined merits of both quantitative, research instruments and qualitative interviews to discern the benefits and the detractors of dental STMs. The goal of the research was to find recommendations to improve the recruitment of dentists to voluntarily serve under-resourced people on Christian, dental STMs.

Leedy & Ormrod (2019) document that the most complicated part of mixed-methods research is in "*combining* . . . and *integrating* the two kinds of data into a research endeavor in which all aspects substantially contribute to a single, greater whole. . . . it can be stimulating, challenging, illuminating, and quite enjoyable—a very personally rewarding enterprise" (pp. 260, 345). This researcher is passionate about dental STM recruitment and is inspired by the possible outcomes and helpful data that will emerge with the research results. Her prayer is that this study will influence dentists to use their unique gifts to help the under-served as they spread Christ's love.

CHAPTER FOUR: RESULTS

Compilation Protocol and Measures

Tooth decay is the most widespread, global, chronic disease and Peres et al. (2019) verify that the personal consequences of chronic, untreated oral diseases are often severe and may include unremitting pain, sepsis, reduced quality of life, lost school days, disruption to family life, and decreased work productivity (p. 249). STMs by dentists can make an incalculable difference both spiritually and physically when they offer dental treatment to under-resourced people (see Sociological section, p. 21). However, recruitment for STMs is often difficult. This mixed-methods, phenomenological, research study utilized 395 (25% female) quantitative research instruments that revealed evaluative statements by Christian dentists and 60 (13% female) qualitative interviews with STM-experienced, Christian dentists (who had an average of 55 STMs per dentist). The research questions holistically explored the benefits and the detractors for Christian dentists and the recommendations for improved STM recruitment.

Demographic questions elicited each dentist's gender, age group, country or state of residence, the number of dental, STMs previously experienced, and his or her religious affiliation. Ethnicity was not a variable or a requested category. According to the calculation formula at Survey System (p. 130), a representation of Christian dentists fell at 383 participants for the quantitative research instrument which was accomplished through the 395 completed research instruments.

The researcher regularly recruits Christian dentists for STMs at a CDS booth at major dental conferences. Since the conference officials expect solicitation of contact information at any exhibit booth, there was no difficulty in obtaining information from those dental professionals who presented themselves at the booth (Appendix E). The dental conferences

utilized by this researcher included Colorado, Illinois, Massachusetts, New York, and Texas. This researcher asked the self-identified, Christian dentists who stopped by the booth if they would voluntarily consent to participate in an e-mailed, quantitative research instrument. A few dentists took the research instrument while sitting near the back of the exhibit booth.

Personal dental contacts, the CDS, the CMDA, WDR, and other Christian, dental STM organizations gave permission to send out research instruments to members by e-mail or through phone calls. Snowball sampling also occurred through dentist contacts. The research instrument asked for "Religious Affiliation" and anyone evaluated by the researcher to have a non-Christian orientation was eliminated from the study.

For the quantitative research instrument, the dentists were asked to rate each of the 36 statements on a Likert-gradated, five-part scale from “Strongly Agree” to “Strongly Disagree” (Appendix A). Lines were provided for the addition of other comments and demographic information. They were asked to only include contact information if they had participated in three or more dental STMs and if they wished to help with an in-depth interview.

Quantitative research instruments were collected and tallied. Data analysis utilized calculations of the statistical Means to calculate response averages, Standard Deviations to measure variations, and Standard Error of the Mean computations at the 90% confidence level. These statistics provided data for graphic visualizations to demonstrate how the dentists rated the six dimensions (spiritual, intellectual, physical, moral, emotional, social) important to holistic growth when involved with dental STMs.

The researcher recorded, transcribed, and coded statements from 60, in-depth interviews. Each STM-experienced, Christian dentist’s statements were placed under the appropriate

dimension of the six, holistic categorizations and were coded and separated into the three benefit and the three detractor subunits.

The quantitative research instrument study, conducted primarily through e-mail, was sent by the researcher and returned solely on the researcher's internet device (a personal, password-protected, home computer). The researcher printed off the research instruments and deleted them from the computer as soon as possible. Occasionally, the researcher had personal contact and received the research instrument in person or via a stamped, researcher-addressed envelope. In all cases, each research instrument was promptly number-coded without noting identifying information. As soon as the research instruments were printed from the researcher's computer, the researcher cut off the contact information and each research instrument was piled with the other research instruments; the results were tabulated later. Therefore, the research instrument results were anonymously tabulated at a later time without identifying information. The cut-off contact information slips were stored in a safe separate from the data. The non-interview research instruments were anonymous and respondents were not required by the IRB to sign and return consent forms. Individuals interested in being interviewed provided their names and contact information on their research instruments, which served as a signed consent. Verbal consent was given by the participant when the researcher interviewed the participants (Appendix B). Consent forms, quantitative research instruments, qualitative interview data, and voice recordings were number-coded and locked in a file cabinet unless they were being analyzed. All data was kept in the researcher's home in locked files and only the researcher had access to the data. Participant identities cannot be established from the raw data of the research instrument statements.

Demographic and Sample Data

The following graphs show demographics and sample data results from the research instrument, which denotes dentists from 44 states, 15 countries, and 43 Christian church denominations. The results reflect 75% males to 25% females on the research instrument and 87% males to 13% females for the interviews.

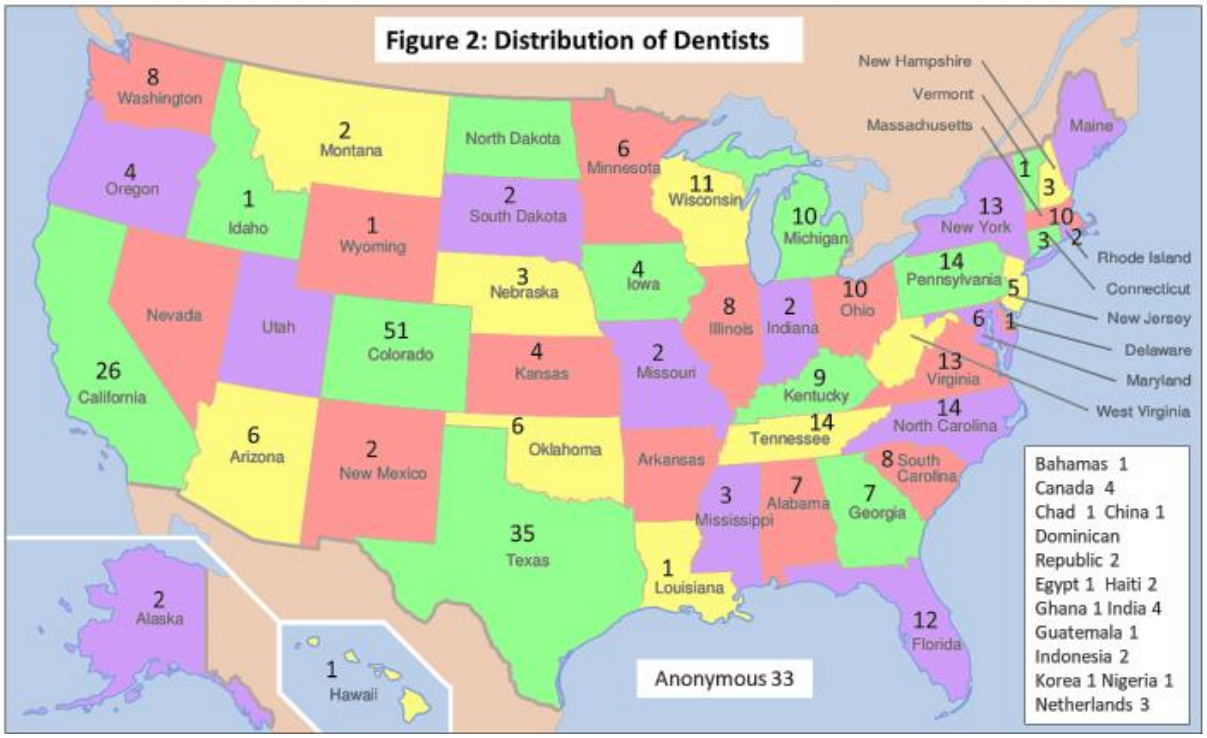


Table 2: Religious Church Affiliations of Dentists					
2	Anglican	1	Ecumenical	1	Orthodox Christian
1	Assembly of God	2	Episcopal	4	Pentecostal
46	Baptists	7	Evangelical Christian	1	Pentecostal Church of God
6	Baptists Southern	6	Evangelical Free	24	Presbyterian
1	Bible Church	1	Evangelical-Non replacement	1	Presbyterian Church of America
1	Brethren	9	Evangelical Protestant	2	Presbyterian ECO
39	Catholic	11	Jesus Christ Follow/Lover	22	Protestants
1	Chinese Independent Baptist	1	Friends of Grace	1	Reformed Protestant
103	Christian	2	Independent Bible-Based	12	Seventh-Day Adventist
1	Christian Coptic	1	International Church of Christ	1	Sovereign Grace Ministries
1	Christian Missionary Alliance	10	Lutheran	1	Table Fellowship
1	Church of Christ	2	Mennonite	12	Unidentified Christian Religions
2	Church of God	13	Methodist	2	United Church of Christ
1	Christian Reformed	2	Nazarene	1	Wesleyan
		36	Non-Denominational		

Approximately 2,000 research instruments were distributed to Christian dentists with a return rate of about 20% of the instruments. The 97% of dentists who had participated in STMs demonstrate the high interest in STMs those dentists possessed versus those who did not return the research instruments.

In Table 3 there are noticeable differences between males and females when examining the demographics of the dentist respondents, but also many similarities. Males, who provided 75% of the research instruments, were generally older. The males over 60 had completed the most STMs. Females, although only 25% of the respondents, had proportionately accomplished more STMs if they were under 60 years of age. These trends are explained by the fact that the dental profession has traditionally been dominated by males and, therefore, there are considerably more senior, male dentists currently who have found time to participate on STMs. The trend has changed over the last 20-40 years, with the female, dental graduates currently equaling male graduates. The data suggests that females have caught up, are surpassing males in the number of STMs completed, and represent fertile ground for STM recruitment.

The largest group of respondents are in the over-60 age group who are currently involved in the “now” season of volunteering. The “now” season is predominant in each age and gender grouping. More than any other age group, the dentists over-60 years also showed that their season for dental volunteering was “past” since they are generally unable to meet the physical rigors of overseas work later in life. Those dentists who have never gone on STMs is a minuscule group in this study.

When respondents were queried on what duties they most preferred on STMs, most dentists favored merely performing dentistry, which is generally their strongest skill.

Table 3: Demographics of the Dentist Respondents of the Research Instruments							
	Male				Female		
Age in Years	**<40**	**40-60**	**>60**		**<40**	**40-60**	**>60**
Number of Dental Missions							
Missions Completed: 0-5	35	31	51		33	21	7
Missions Completed: 6-10	6	11	22		3	5	0
Missions Completed: >10	5	24	109		3	17	9
The Season for My Dental Volunteering:							
Is Past	7	2	36		1	3	3
Is Now	31	43	129		23	26	12
Is in the Future	21	25	23		1	2	0
Is Never	0	2	5		1	2	0
I Would Like to Go on a Mission to:							
Lead	14	22	45		6	8	2
Organize	3	4	13		3	4	3
Administrate	0	0	7		0	8	0
Just Do the Dentistry	23	39	96		26	22	10
Do Multiple things	6	2	17		3	2	1
I Prefer Dental Volunteerism:							
Working Locally	2	4	15		2	5	2
Working Globally	10	13	43		4	12	6
Work Both Locally and Globally	34	49	121		33	26	8
Neither Locally or Globally	1	1	4		0	0	0

Male dentists were more willing to lead and to organize trips and the senior dentists dominated the younger professionals in desiring leadership of the STMs. Dentists said they have worked in other areas from their preferred, personal strengths, articulated well by the dentist who said:

> I have helped as needed sometimes in roles I am less comfortable with. The missions I have been on have emphasized flexibility and I have found that new roles or unexpected work can connect you with different people and places and proved to be a blessing. I have helped with laboratory work, general dentistry, mentor training, oral surgery, and equipment repair, storage, and transportation. Not all of these assignments were roles that I signed up for or even thought that I would want to do.

Few dentists only volunteered overseas and most indicated unpaid service both at home and globally and many commented that God had given them a heart for service and that they enjoy helping others through their dental profession and look to assist at home and abroad.

Data Analysis and Findings

Following each holistic dimension heading—spiritual, intellectual, physical, moral, emotional, and social—is the pie graph depiction of the statement outcomes, in the order shown on the organizational chart (Table 1). The pie graphs document RQ1 objectives. Next, after the pie graph in each section, quotes from the dentists' interviews are summarized, which apply to RQ2 goals. The recruitment suggestions that evolved in each category through the combination of the pie graph outcomes and the dentists' thoughts from the interviews will come last in each of the six, major sections (applying to RQ3 objectives). The 36 pie graphs will introduce successive statements from Table 1 to group the categories, although the research instrument listed the statements in random order (as noted in Appendix A). The analytic discussion will be interwoven throughout the sections with summaries of the data provided in Chapter Five.

RQ1 objectives were targeted by the quantitative outcomes of the 395 research instruments returned, where statements were evaluated in the six holistic areas featuring the categories previously identified through the literature search that spawned this researcher's choice of three benefit statements and three detractor statements (Table 1).

RQ2 goals were addressed by the qualitative portion of the research involving 60 interviews with STM-experienced, Christian dentists and all quotes in each section following the related pie graphs were given by these dentists. The approximately 20-minute interviews were recorded on a small, Evistr Digital Voice Recorder. This researcher took the important, holistic points described by each dentist and (1) hand-transcribed them; (2) coded each statement into one of the six holistic dimensions, and categorized each statement as a STM benefit or a STM detractor in one of the 36 areas (see Table 1). After coding, it was apparent that the benefits in each dimension significantly outweighed the detractors for dental STMs. Surprisingly, many of

the Christian dentists who go on STMs regularly insisted they had no detractors that held them back, saying detractors are “a non-item for me.” These dentists recognized (after many STMs) that they had overcome their fears, anxieties, and concerns about leaving their home environments and had accepted the risks associated with STMs. The dentists’ voices exuded passion and emotion concerning their love for God and their commitment to Christian evangelism through dental STMs.

Table 4 (STM benefits) and Table 5 (STM detractors) display the results and the statistical data from the 395 research instruments in the six holistic dimensions of personhood—spiritual, intellectual, physical, moral, emotional, and social. There are three statements in each of the six dimensions, with the corresponding statements evaluated as Strongly Agree (5 points), Agree (4 points), Neutral (3 points), Disagree (2 points) to Strongly Disagree (1 point) in each of the holistic dimensions. The number of dentist respondents is listed in each category, followed by the Mean (the average). The Mean, Sample Standard Deviation, and Standard Error of the Mean at the 90% confidence level were calculated for the results of each statement from the research instrument, using the Online Calculator for Standard Deviation. By entering the evaluation value (5,4,3,2, or 1) for each of the 395 respondents, the calculations were achieved. The Sample Standard Deviation was chosen since the research instrument involved a sampling of Christian dentists from a larger population. The Standard Error of the Mean was computed by the Online Calculator and represents the accuracy of the Mean value at the 90% confidence level.

Table 4: Results of the Research Instruments: Benefits of Dental Short-Term Missions								
Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD), Mean, Sample Standard Deviation, Standard Error of Mean	SA 5	A 4	Ne 3	D 2	S D 1	Me	SS Dev	SEM 90% Conf
Spiritual: Following Mandates and Callings **1. I feel a calling to dental, short-term missions.**	180	147	49	14	3	4.24	.859	± .071
Spiritual Preparations and Outreach **2. Sharing my faith is important to me.**	170	169	42	11	4	4.24	.826	± .068
Personal and Spiritual Growth **3. I desire to receive spiritual growth on missions.**	145	186	52	11	2	4.15	.798	.± .0670
Spiritual Benefits Average:	**162**	**167**	**48**	**12**	**3**	**4.20**	**.832**	±.070
Intellectual: Cultural and Travel Adventures **1. I like adventure and travel.**	223	148	19	5	1	4.48	.678	± .057
Mission and Career Experience **2. I relish learning through new experiences.**	204	156	19	2	4	4.44	.715	± .061
Educational and Mentorship Interchange **3. I like dental teaching and mentoring.**	229	127	29	3	2	4.48	.717	± .060
Intellectual Benefits Average:	**219**	**144**	**23**	**3**	**2**	**4.46**	**.681**	±.058
Physical: Improvement for Health and Aging **1. Dental volunteerism helps to revitalize me.**	193	163	34	3	0	4.39	.680	± .057
Safe and Comfortable Missions **2. Dental trip benefits outweigh the discomforts.**	261	108	17	5	4	4.55	.743	± .062
Therapeutic Touch Impacts Ministry **3. Physical contact warms my heart on missions.**	91	205	85	13	1	3.94	.773	± .064
Physical Benefits Average:	**182**	**159**	**45**	**7**	**2**	**4.30**	**.778**	**±.064**
Moral: Purposeful, Significant, Moral Duties **1. Doing right, despite sacrifices, compensates me.**	146	223	23	4	0	4.29	.620	± .051
Giving Back to People **2. I like to help disadvantaged people everywhere.**	244	134	9	3	6	4.53	.729	± .061
Honor, Respect, and Social Justice **3. Differing familial and social values intrigue me.**	74	236	69	13	2	3.93	.733	± .061
Moral Benefits Average:	**155**	**198**	**34**	**7**	**3**	**4.25**	**.745**	**±.061**
Emotional: Joyful, Positive, Empathetic Living **1. I find it emotionally uplifting to help people.**	243	143	4	0	3	4.59	.599	± .050
Self-esteem and Self-actualization **2. Dental mission trips personally fulfill me.**	194	169	24	4	2	4.44	.731	± .066
Overcoming Diverse, Troublesome Emotions **3. Gaining new perspectives on my life is helpful.**	181	206	8	0	1	4.43	.564	± .047
Emotional Benefits Average:	**206**	**178**	**12**	**1**	**2**	**4.47**	**.624**	**±.052**
Social: Inspiring and Encouraging Followers **1. Influencing others is a goal of my mission.**	125	182	57	23	6	4.01	.914	± .076
Fostering Relational, Teamwork Benefits **2. Working on a team is rewarding for me.**	194	181	10	6	4	4.41	.711	± .059
Relationships with Nationals and Missionaries **3. I embrace socializing and relationship building.**	150	183	32	11	0	4.26	.733	± .062
Social Benefits Average:	**156**	**182**	**33**	**13**	**3**	**4.22**	**.809**	**±.068**

When analyzing the results and the data of Table 4 and Figure 3 showing the average Means of dental STM holistic benefits, there is consistent, strong support for dental STM

benefits in the six areas of holistic personhood with little variation between individual statements or in the Mean. The Mean for all 18 areas examined were all in the "Agree (A)" to "Strongly Agree (SA)" range. The Sample Standard Deviation (SSDev)—all less than 1—and Standard Error of the Mean (SEM)—all less than .071—were small since there was consistency in the responses. The strongest STM benefits were found in the emotional category: ("I find it uplifting to help people," "STMs fulfill me," "Gaining perspective is helpful") and the intellectual dimension ("I like adventure and travel," "I relish learning through new experiences," "I like dental teaching/mentoring"). The other four dimensions were a close second.

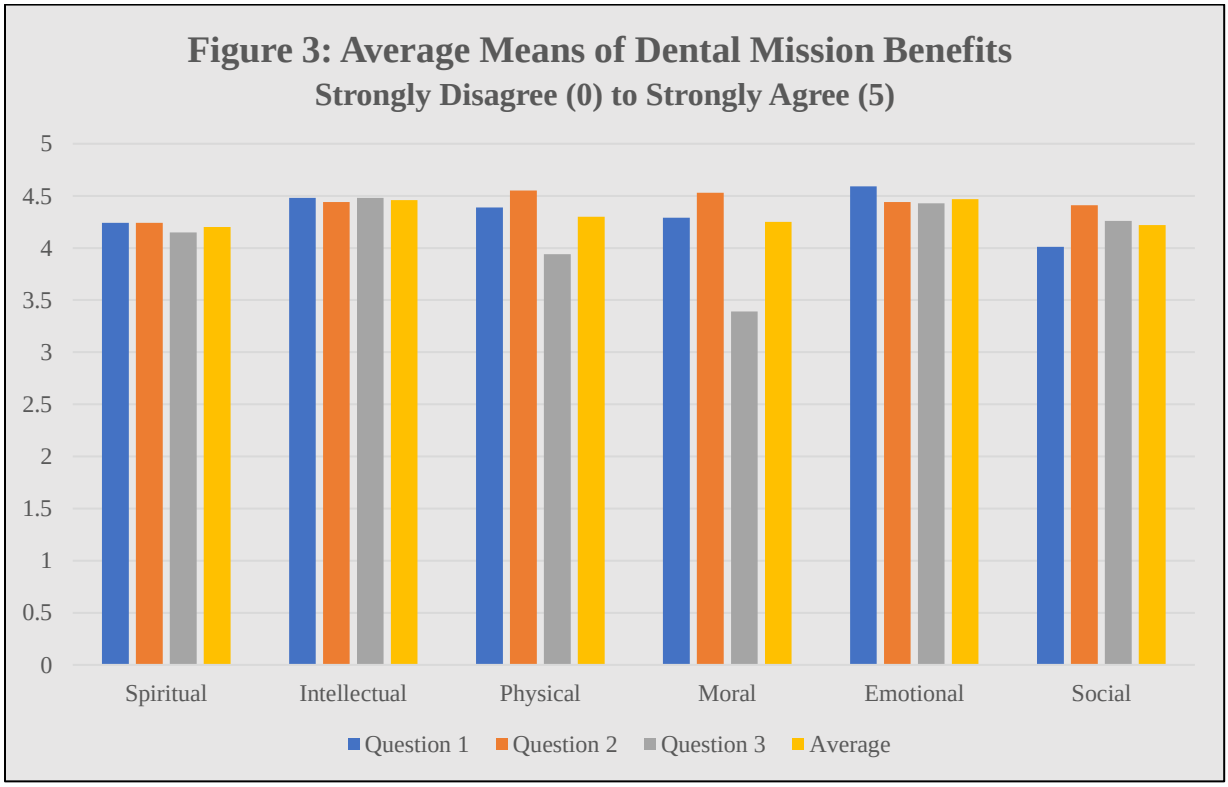
Table 5: Results of Instruments: Detractors of Dental, Short-Term Missions

Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD), Average or Mean, Sample Standard Deviation, Standard Error Mean	SA 5	A 4	N 3	D 2	SD 1	Me	SS Dev	SEM 90% Conf
Spiritual: Differing Doctrines and Beliefs **1. Discussing differing beliefs upsets me.**	3	9	50	218	117	1.90	.755	± .062
Restrictive and Persecution Situations **2. Sharing religious views feels risky in other cultures.**	8	29	91	185	83	2.23	.930	± .077
Disturbing Awareness of Sin and Evil **3. Confronting sin and evil disturbs me.**	13	45	80	193	63	2.37	.990	± .082
Spiritual Detractors Average:	**8**	**28**	**74**	**199**	**88**	**2.17**	**.920**	**±.076**
Intellectual: Dealing with Planning and Change **1. Adjusting to change is difficult for me.**	8	48	83	177	79	2.31	.991	± .082
Personal and Aggrandizement Motives **2. I'm bothered if people boast about their volunteerism.**	60	137	96	73	28	3.32	1.16	± .096
Dental Provider Inexperience Controversies **3. I have little tolerance for inexperienced providers.**	2	14	45	200	135	1.86	,789	± .065
Intellectual Detractors Average:	**23**	**66**	**75**	**117**	**81**	**2.54**	**1.20**	**±.104**
Physical: Challenges, Constraints, Risks, Discomforts **1. The risks and hardships impact my involvement.**	2	77	67	168	84	2.36	1.04	± .086
Evaluating Myriad STM Costs **2. Mission expenses are too high for me.**	14	47	110	145	77	2.43	1.05	± .087
Enduring Excess Patient Expectations **3. Excessive, unmet dental needs overwhelm me.**	23	85	77	150	60	2.65	1.15	± .095
Physical Detractors Average:	**13**	**70**	**85**	**154**	**74**	**2.48**	**1.09**	**±.090**
Moral: Ethical and Moral Concerns **1. Differing member behaviors/standards conflict with me.**	0	85	115	162	31	2.64	.906	± .072
Dealing with Poverty Issues **2. My priorities do not include helping in other counties.**	9	14	14	131	226	1.60	.894	± .074
Compromised Standards of Care	15	59	56	186	78	2.36	1.07	± .089

3. Doing quality, portable dentistry seems overwhelming.								
Moral Detractors Average:	**8**	**53**	**66**	**160**	**145**	**2.12**	**1.07**	**±.084**
1. Emotional: Disturbing STM Emotional Reactions **Going on a mission would be out of my comfort zone.**	7	29	31	132	197	1.78	.991	± .082
Compassion Fatigue and Burnout **2. I often feel guilt over being more blessed than others.**	22	85	105	136	48	2.74	1.10	± .090
Cultural Dissonance and Re-entry Issues **3. Adjusting to change is difficult for me.**	6	44	61	202	80	2.22	.947	± .079
Emotional Detractors Average:	**12**	**53**	**66**	**157**	**108**	**2.25**	**1.09**	**±.090**
Social: Teamwork and Interpersonal Conflicts **1. Group dynamics are a major stressor on missions.**	9	91	134	138	21	2.82	.926	± .077
Burdening Nationals and Missionaries **2. Sending money is better than sending teams.**	3	13	120	166	93	2.20	.846	± .070
Home Responsibilities and Concerns **3. My family/friends don't encourage my mission trips.**	3	23	64	133	171	1.87	.999	± .079
Social Detractors Average:	**5**	**58**	**112**	**146**	**95**	**2.36**	**.923**	**.076**

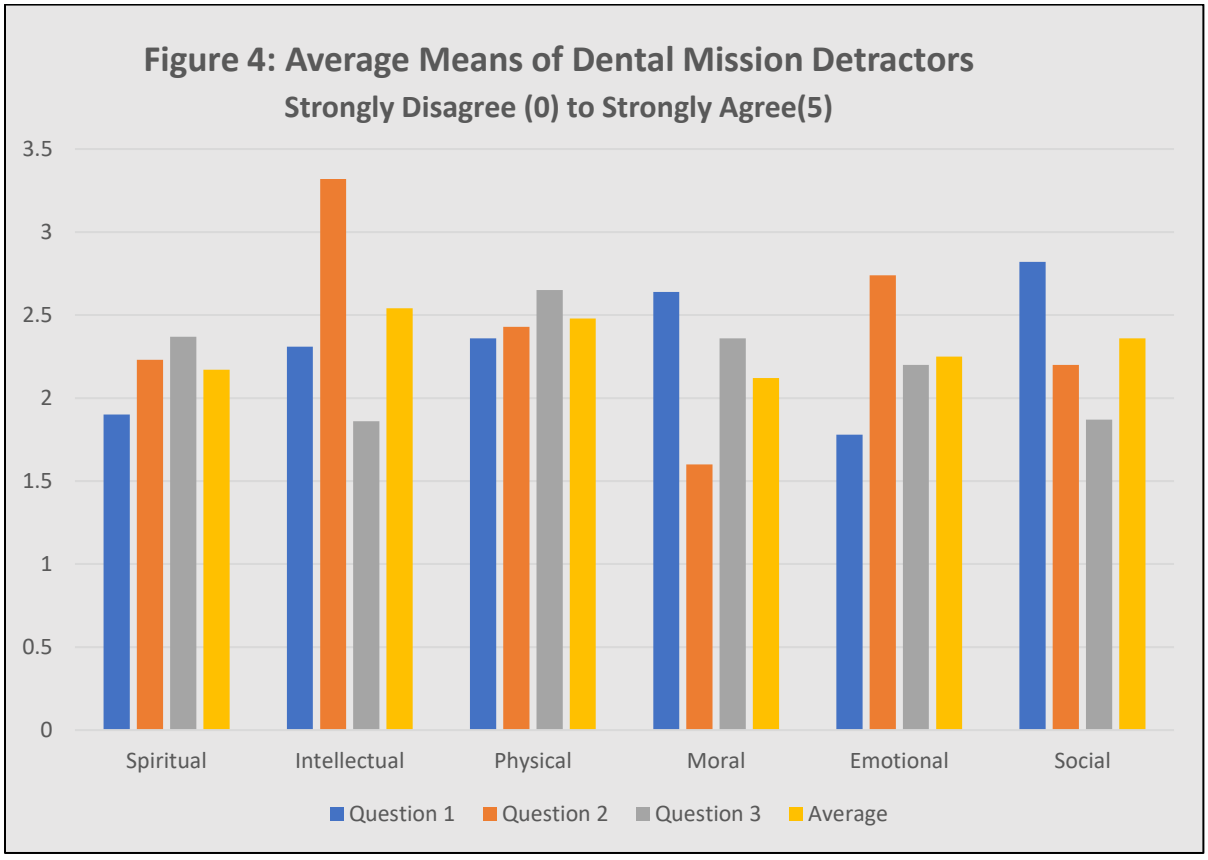
When analyzing the results in Table 5 and the data of Figure 4 on mission detractors, there is significantly more variation of results and statistics because there is less consistency in the respondents' responses. The Mean values for all 18 areas examining mission detractors fall in the "Disagree" category. Because there is not as much consistency in responses on detractors of dental missions there is a higher Sample Standard Deviation (many values were over 1) and Standard Error of the Mean (most were close to .01). The strongest detractors, leaning more towards the "Neutral" spectrum, were from the Intellectual ("Adjusting to change is difficult," "I'm bothered if people boast," "I have little tolerance for inexperienced providers") and the physical ("Risks and hardship impact my involvement," "STM expenses are too high," "Unmet dental needs overwhelm me") categories. The spiritual detractors ("Discussing differing beliefs upsets me," "Sharing religious views feels too risky cross-culturally," "Confronting sin and evil disturbs me") had the lowest Mean as respondents disagreed most strongly that spiritual issues detract from doing missions.

Figures 3 and 4 graphically show the Means of the three statements and their Average in each of the six, holistic dimensions. The values are listed in parentheses for each numbered rating: Strongly Disagree (1); Disagree (2); Neutral (3); Agree (4); Strongly Agree (5). Observe the consistency of STM benefits in Figure 3 falling between Agree and Strongly Agree in support of the benefits of doing STMs and the STM detractors falling generally between Strongly Disagree to Disagree.



These results are highly favorable for the recruitment of dentists to participate in dental STMs as there is a consistent agreement that significant benefits can be gained in all six, holistic dimensions of a dentist's life. They also consistently disagree that detractors are keeping them from participating on STMs and have found methods to overcome the negative aspects of involvement with STMs. It is significant to note that this research instrument may overestimate the benefit and the detractor results since the study was focused on Christian dentists who had a

propensity for involvement in STMs (97% said they had gone on at least one STM). However, these are the individuals sought for recruitment by this research, which examines the holistic benefits and detractors to dental STMs. With these significantly positive and encouraging STM outcomes, STM recruitment can be highly promoted and advocated due to the unequivocal, holistic benefits that may be generated with dentists' engagement with STMs. The results suggest that detractors do not significantly affect STM participation for most dentists.



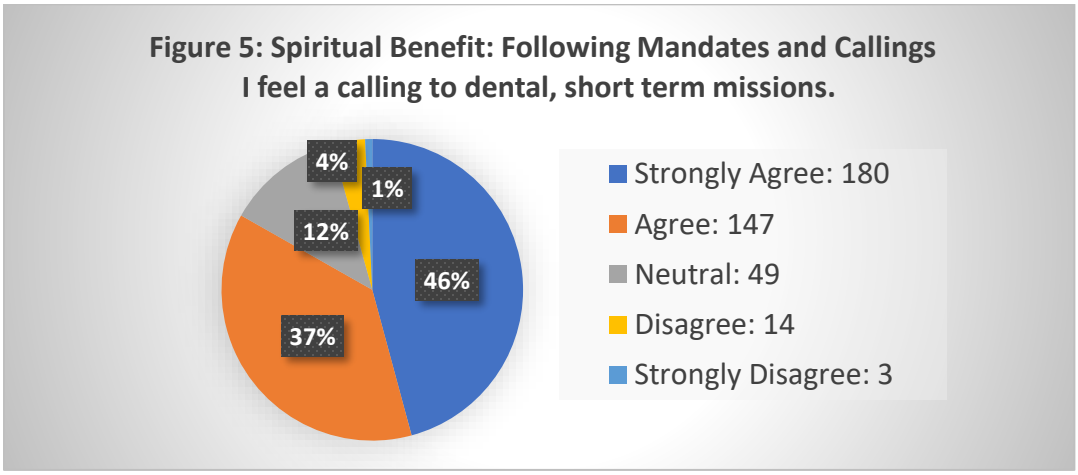
Each of the six, holistic categories will be shown with the six statements for each dimension (three benefit and three detractor statements). The dentists' evaluations of each of the 36 statements will be demonstrated on a pie graph title that introduces each specific, holistic topic while denoting whether it is a benefit or a detractor. The research instrument statement that

the dentists responded to is on the second line of each pie graph title. Their responses can be viewed from the Strongly Agree numbers and percentages down through the Strongly Disagree numbers and percentages on the pie graph. Following each graph, the qualitative interview quotes are summarized for each holistic category. All quotes from the qualitative interviews reflect representative thoughts from the 60, STM-experienced dentists who were interviewed by this researcher. Averaging 55 STMs each, the interviewed dentists have much expertise in STMs.

Although all quotes from the qualitative interviews could not be included, the most representative, typical and illustrative examples were featured. Discussion is correlated throughout the dentists' comments. Following each of the six holistic dimensions, there are recruitment suggestions for STMs made by the interviewed, STM-experienced dentists, categorized under the specific dimension. The benefits, detractors, and recruitment suggestions are summarized in Tables 6-12 in Chapter Five.

Analysis of the Spiritual Dimension

Spiritual benefits of dental short-term missions.

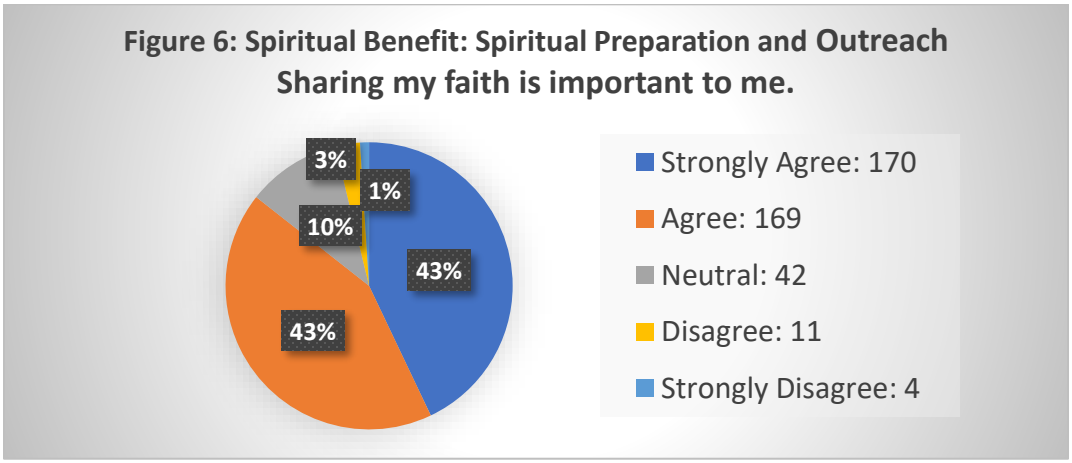


Each of the Christian, STM-experienced dentists expressed their desire to serve God and to reflect his love. They hoped to represent God, show the love of Jesus, obey Scripture, live out the Christian faith, and plant seeds and advance God's Kingdom. Believing they are servants of a

higher being and ambassadors of God, dentists spoke of STMs as faith in action with dental opportunities to communicate the love of Christ in tangible form to other people while personally "experiencing God in a whole new way."

A majority of the dentists stressed that their STM involvement is a calling from God and believed that confirming signs reveal God's calling to STMs. One dentist spoke of a quiet moment when the Lord told him: "I hear the cries of those in dental pain and I am raising up an army to serve them—I want you to be part of that!" Other dentists affirmed their need to be open to God's plans, utilizing "not my ability, but my availability."

Dentists regarded STM opportunities as a resetting and realignment priority exercise to reveal what is most important in life—which would not be material things and money. Many professionals schedule an annual trip into their work calendar where "God has set my mission and I serve by taking care of the mouth." They hope that patients see God through their example of service and that physical healing might open the door to spiritual healing. One practitioner asserted: "Preach the Gospel always through dentistry and sometimes use words."



The majority of dentists claimed that evangelism is their primary reason for participating in STMs, accepting that even if the dentist is not sharing the Gospel, they are facilitating the one who is evangelizing by helping bring in patients and souls that need touching. They want to

partner where God is working and insisted that patients know that the dental team came in Jesus' name, often stating that if there is not an evangelical component to the dental STM, they were not interested in participation, since "a mission without a message is an ineffective allocation of money" and "spreading the Gospel of Christ is the first and only reason for STMs." The dentists felt that they were imitating Jesus, who ministered, healed, and spoke about the Kingdom of God. One dentist specified that "I don't want to be disobedient like Jonah if God wants me to go somewhere." Dental missionaries are convinced that STMs open people's hearts for the Gospel and they happily described asking patients about prayer requests and how they are doing in their walk with the Lord. They recounted many victories concerning the salvation of those impacted by dentistry.

Dentists understand that God is already in and at work in the local community where a STM team is visiting, saying "We do not bring God with us. It is important to value and work with the national church." Many dental groups desired a local, church partner and wanted to lend credibility and authority to a national church body; a young dentist stated, "If the purpose is not to support a church and bring people to Christ, then the trip is a waste of my time." Other dentists expressed similar thoughts to this dental STM participant:

> My goal is to build up the prestige of the local church and the pastor since they are an agent of good in their community. The pastor is someone locals should respect as a person who cares about the community by bringing dental care as an outreach to their community. I have no interest in being a "humanitarian." I'll let the pagans do that.

Dentists often thought it best if the local ministers address spiritual outreach endeavors since they understand the local cultural beliefs and how to advise converts to change lifestyle behaviors when they commit to God. Many dentists continue to go back to places where there are vibrant spiritual leaders where they trust the national church members to address the spiritual needs of the patients. Several dentists used STM, dental venues to encourage, support, and plant

churches, finding that STMs give credibility to new ministries and promote evangelism. One dentist frequently uses STMs to validate missionaries who serve in hard, non-Christian places—"like Muslim-dominated areas." National pastors often tell dentists that people who refuse to come to the church often may appear when dental care is offered because of its unavailability in the community. Dentists felt that because medical services are more obtainable in most areas, dentistry is a bigger pull than medical and usually has longer lines. It was also acknowledged that dentistry is one of the few medical interventions that can be done on STMs (with the addition of eyeglasses) and may be given on an individual basis, usually without a need for follow-up. One dentist noted:

> A missionary medical doctor on one of our teams said that if he had the choice of bringing a second doctor with him or a dentist, he would take the dentist EVERY TIME. That's because a good number of people have medical problems, but 100% of the people have at least one form of a dental problem, even if it's just having their teeth cleaned. There is no end to the extent of the need.

A STM dentist described one national pastor who held peoples' hands while getting shots or having teeth extracted. She had no idea of the dental disease of her parishioners. Holding their hands put pastor and parishioner in a "been in the trenches together" experience that bonded them. Another dentist wrote:

> I feel the passion to do missions and to serve my Lord . . . with the gift that He gave me that is my profession. I feel His Spirit . . . calling me to serve and preach the gospel through dentistry. After all, winning souls is the most important thing to a believer.

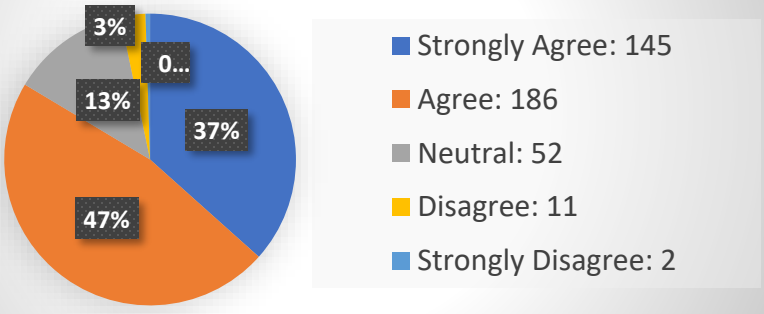
Dentists touted providing services for local people as beneficial in opening a conversation about the Christian faith and thought that God often directs patients to the team and puts "certain people in my dental chair." They discussed different methods of evangelizing, noting that spiritual depth varies with each group, yet spiritual talks in the waiting room (often using local

pastors and leaders) are beneficial. Most agreed that once a patient is in the dental chair they are distracted and have a hard time listening to anything except for comforting prayers.

Dentists reinforced that STMs have brought them boldness in sharing the Gospel since "for some reason, early in the faith, STMs help us learn to evangelize to strangers and may bring courage at home later." At their home practice, many dentists verified that STMs create opportunities to discuss spiritual issues with patients, colleagues, and community members. Evangelizing on STMs "forces you to decide what you believe and how you act spiritually when you are uncomfortable—STMs are a minor proving-ground for faith." One dentist's children helped with Vacation Bible School, worked with missionary relatives, and observed patients making "spiritual progress which was great for my kids to see."

Some team members especially enjoyed home visits with prayer emphases, including dentists who touted much prayer before STMs, stating that the more prayer, the more God does in bringing others to himself.

Figure 7: Spiritual Benefit: Personal and Spiritual Growth
I desire to receive spiritual growth on missions.



Many dentists spoke of STMs as a great Christian encounter, impact, and opportunity to grow closer to the Lord as they learned more about themselves and other people. One dentist regarded STMs like a retreat where participants are hearing God's word, serving, and growing. An older dentist, who started going on STMs at age 62, embraced the experience, proclaiming,

"STMs are the most spiritually-satisfying activity I've done in my life." Most dentists hoped to catapult their trust, faith, and flexibility in the different STM situations.

Dentists often used one of these descriptors for dental STMs: life-giving, heart-changing, perspective transforming, and eye-opening. Dentists also listed spiritual growth by stating they were stretched, recharged, and pushed out of their comfort zones when they stepped out in faith. They spoke of more reliance on God through a grounding, spiritual experience and acknowledged that God prevails on STMs and instills supernatural strength, stamina, and endurance. When they have to leave their home office, many dentists at first worry about how God will provide, but many professionals celebrated that the Lord delivers whatever is needed. One dentist reckoned, "We are concerned that we cannot afford to be away from practice, but we cannot afford not to go!"

Experiencing God's power on STMs was often mentioned as participants observe God at work around the world and feel the Lord's hand on mission trips. Dentists related experiences of witnessing divine healings, mind-boggling miracles, and physical provisions ("prayers brought lower blood pressures and more antibiotics when needed"). An experienced STM dentist of over 100 STMs commented that "Seeing many miracles over the years has brought total belief in God as I asked for a hundred-fold return and he certainly accomplished that!" They noted inspiring team sharing times, studies using real Bibles, and precious moments with national people:

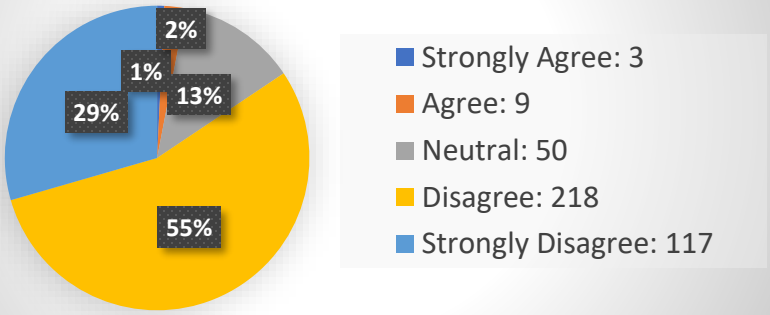
> We love to include the locals in the devotional times and it is a privilege to enjoy unity and fellowship with Christians of other cultures. Then we are not just tourists. We work with the locals and they invite us into their homes and we get to understand their lives.

Frequently, dentists would admit to not being brave to speak, preach, or lead Bible studies, but hoped their example of giving charitable dentistry showed their love for God. They agreed that there were more spiritual benefits on Christian STMs than on merely humanitarian

trips, and related that “So many people live without the presence of Jesus and life is all about them . . . they can be good people but without a sense of spiritual unity.”

Spiritual detractors of dental, short-term missions.

Figure 8: Spiritual Detractor: Differing Doctrines/Beliefs
Discussing differing beliefs upsets me.



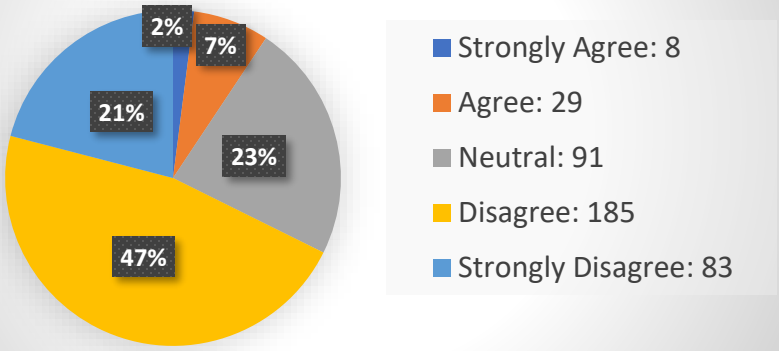
Dentists mentioned the interest of working with people of differing beliefs while not becoming personally affected by local religions. Most practitioners did not restrict treatment to Christians, desired to impact the STM areas with sound biblical truth, and felt free to discuss and debate beliefs, saying, “STM travel is fatal to prejudice, bigotry, and a narrow worldview.” Several dentists advised caution in addressing the uncomfortable politics of the countries they were visiting, where even predominantly ‘Christian’ cultures may have biblical misconceptions according to some STM teams’ doctrinal leanings. One STM leader noted that STM group members often have differing doctrinal ideas and remembers several situations where

> one STM participant was disconcerted when the sponsoring group did not wish to evangelize—she found they had different concepts about hell and did not carry the burden that she did for lost people. Another STM professional worried when a pastor on the STM disapproved of some faith misconceptions she had voiced. Other Christians were concerned that discipleship or follow-up of new believers seemed lacking.

Some dentists were distracted by involvement in significant ministries in their home churches which conflicted with dental STMs. Another snag occurs when STM, dental leaders expect a spiritual focus or purpose to the trip and are disappointed when the STM seems more

humanitarian- than Christian-focused. Other dentists believed that personal sin, self-focus, and disobedience to God is a detractor deterring people from STMs.

Figure 9: Spiritual Detractor: Restrictive/Persecution Situations
Sharing religious views feels risky in other cultures.



STM dentists try to reach out to hazardous, non-Christian, areas, and have to weigh the options of respecting the religious laws of the land with the chances to use openings to share the Gospel that goes against the atheistic or unbiblical beliefs of a certain locality. In those situations, preaching is not allowed but team members can answer questions, if asked, or just live the Gospel through compassionate dental work. Some STM dentists support a local church in an unsafe place of religious opposition, but commented that "the local people have no options to leave, so what right do we have to argue that it is too risky to go there?" They also admitted to

> going to many countries 'under the radar' because they would never let us in if we acknowledged our presence to the non-Christian governments—by the time they figure out we are there on the STM, we are gone. We just don't want to cause problems for the local ministries that have to stay and we try to protect their reputations.

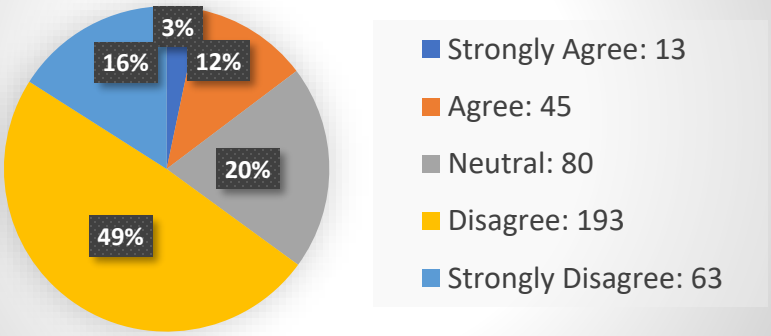
On a STM to a post-Communist country where local young people traveled with the American team, the nationals wanted to show the *Jesus* film to a military community. The American dentist offered charitable dentistry to the senior officers of the area in the hope that it would open the door for the Christian outreach. However,

> all the top officers came for treatment, and we performed many difficult extractions, seeing about twenty patients for six hours. When the young people wanted to present their entertainment and the *Jesus* film, the leaders cut off everything, especially since they'd already received dentistry for the top brass. 'We like free, but we don't like Christian,' they stated, asked us all to leave immediately. We hope we planted some positive impressions.

Dentists related incidents concerning dining in a post-Communist country where a previous officer refused to eat with the American Christians, interrogations over tea at a Muslim village about why they had come when there was dental need in their own country, and when the purchase of a cross at an Orthodox monastery gift shop was denied to American Christians by the monks because the dentists "were not of the same religion." A dentist described

> a village he visited in India that had Christians who were persecuted by fundamentalists trying to build a temple in the backyard of the believers. After the Christians prayed, a monsoon rainstorm ruined the temple and the winds toppled and smashed the idols. The witch doctor advised the fundamentalists: "If the Christians are praying, you had better leave that area!"

Figure 10: Spiritual Detractor: Disturbing Awareness of Sin/Evil
Confronting sin and evil disturbs me.



A Haitian dentist, who leads STMs, said that he was not bothered by evil influences:

> I'm not scared because God protects me . . . nothing can attack me—Jesus' blood is covering me from the top of my head to the bottom of my feet. Luke 10:19 says that God gives power over everything.

A mentor of dental students spoke to counteracting the efforts of Satan to affect vulnerable young people as they pronounced God's Truth. Dentists claimed that STMs are often a

battlefield in a spiritual arena, and advised: “Do not go into STMs lightly as a pleasure or a place for self-adulation. It must be an act of love and service to God. Be right with God and have the true reasons for going.” Many dentists recognized spiritual warfare and resistance as common occurrences, including the STM leader who said:

> Witchdoctors came to harass the team—yet when I presented the Gospel to them, thunder started and it was evident that dark forces were present . . . our team left a mission site early because of a spirit of confrontation in a Communist country where the team was misunderstood and thought to be proselytizing and the nationals saw it as an invasion of their area . . . on STMs, I’ve frequently recognized people with the heart of Satan who utilize potions and incantations. When we can stay, we see miracles that impact the community and many souls are harvested following God’s intervention.

Several dentists spoke of incidents where, surprisingly, a routine procedure became difficult, but eventually resulted in a victorious, spiritual outcome. One patient’s bleeding from his tooth extraction was abnormal and the group kept him there while noticing that he wore a satanic medallion. After the pastor arrived and shared the Gospel with the patient, the bleeding stopped. Another dentist was puzzled when he could not numb a patient as usual. After much time, prayer, and soothing by the pastor who was translating, the tooth got numb and the extraction occurred uneventfully. The patient told the translator, “I believe in God, but I haven’t been following him. I want to change my ways and go back to church.” The dentist said,

> I’ve been reflecting on the perplexity of that tooth . . . There seemed to be a direct relationship between the physical battle to get the tooth out and a spiritual battle within. If the patient had responded normally to anesthesia and if I’d routinely extracted the tooth, she may have missed the caring of God’s people. She became the focus of special prayer, and the lengthy time involved allowed Pedro to share spiritual matters with her. She accepted Jesus into her life!

A dentist also told of driving in dark-windowed vans without getting out until the vans had pulled into the courtyard with high fences because it was unsafe for a local person to be seen with white people, who were assumed to be rich—they could be blackmailed for a tax—a monthly fee a person paid to gang members to retain their safety. If not paid, threats of death or

destruction of property would ensue. The locals told of one man who died when shot after leaving the church with his pregnant wife—all because he tried to drop out of his gang.

Recruitment ideas concerning the spiritual dimension. Many dentists felt that team members must have a heart and a calling for STMs, even beyond family or office obligations at times. They thought it important to emphasize that a STM forces a dependence on God and helps take focus off oneself to see the Lord's activity in the world. STMs were seen as great opportunities to reach out to people while fulfilling the Great Commission. Dentists found it easiest to recruit colleagues who are committed Christians and have an intrinsic love for people. They hold discussions with possible STM recruits to find out what they are interested in for a trip and match it with how they can be used while highlighting the blessings involved.

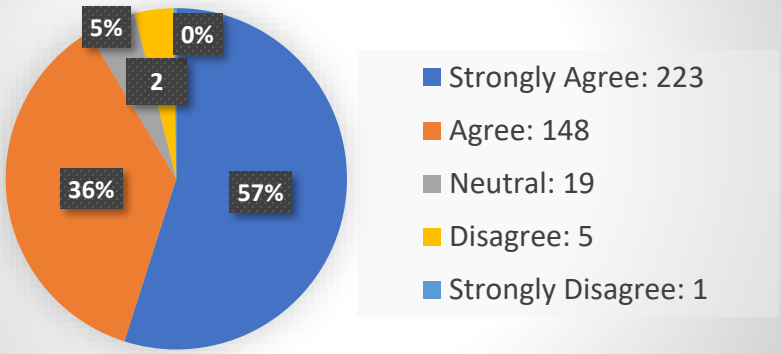
Some STM dentists recommended a STM that is denominationally in line with the participants beliefs and felt strongly about recommending faith-based STMs over humanitarian-based endeavors, saying, "target believers as we have a God-given talent to share." Often, if it is just a money issue, STMs can be figured out, as long as a dentist wants to help other people and to share God's love.

Dentists recommended using dental organizations (CDS, CMDA, WDR, and more) to encourage people to join STMs as it is "important to multiply ourselves." Other dentists recommended a serious recruitment strategy by using PowerPoint presentations, showing pictures that illustrate the actual field in use. They stressed Bible verses in the presentation and helping dentists to go with an experienced team. There was also the caveat that if they do not feel called to go, they can still support in other ways. They advised being open to taking non-Christians to serve since it changes them spiritually.

Analysis of the Intellectual Dimension

Intellectual benefits of dental, short-term missions.

Figure 11: Intellectual Benefit: Cultural and Travel Adventures
I like adventure and travel.

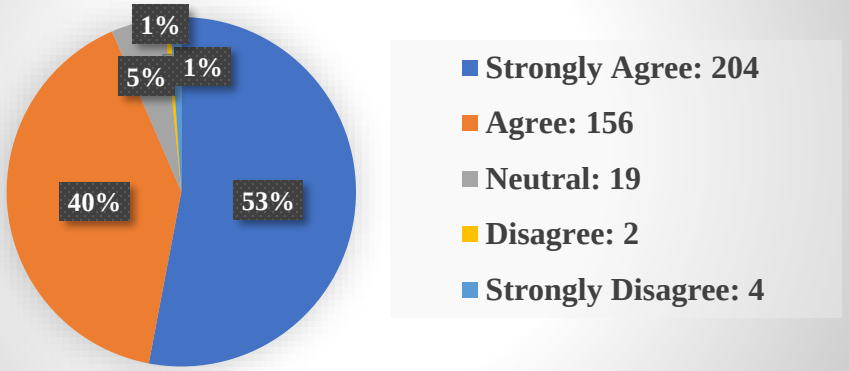


Dentists delighted in STMs as an opportunity to learn and broaden culturally while visiting a different country; often the adventure and experiential opportunities initially draw them in. They enjoy new and interesting sights, different food, and unique local customs and living situations, including recommendations to take free time to view the local highlights, to experience the culture, and to eat safe, local food. One dentist compared STMs to "walking the pages of National Geographic with exotic, remote places . . . latrines in holes in the ground and dirt-floor homes where they offer you the best they have! You can read about it, but nothing is like feeling, smelling, touching, hearing!" Most dental professionals celebrated the cross-cultural aspect of volunteering.

STM-experienced dentists indicated a change in world view as participants see through the eyes of a different culture and view God's total creation in a bigger sense. They thought it important to be open and non-judgmental concerning the culture. Trips afford the chance "to have whatever you desire—either luxury hotels or riding a donkey into small villages. The world is your oyster as you indulge in fascinating cultures." Although it may be sad to see people

struggling and without opportunities, dentists often see that these people are joyful and have strong relationships and positive teamwork attitudes in their communities.

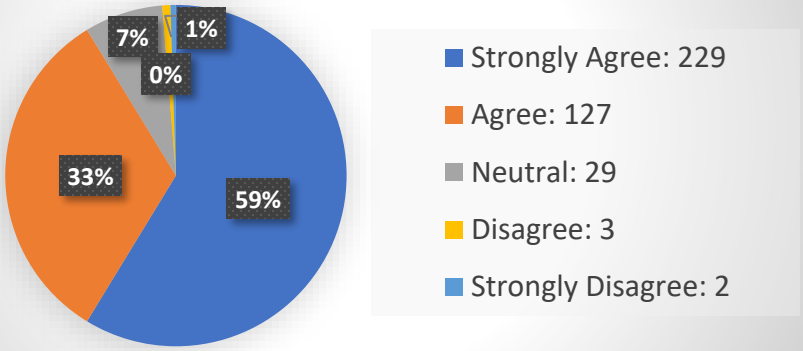
Figure 12: Intellectual Benefit: Mission and Career Experience
I relish learning through new experiences.



Most dentists spoke of the opportunities and the blessings of using their hard-earned, God-given, dental skills to benefit other people through STMs that "bring enrichment to my career and professionalism and the advantages of intentional learning and educational growth and experience through dentistry in the field." Improving clinical skills while showing God's love through providing for dental needs was a winning situation. One dentist embraced learning and pursuing advanced skills and, although struggling with the possibility of going to seminary, he decided STMs supplied both desires.

Many dentists said that STMs were not in their comfort zone and they were not available or even aware of working in foreign countries without clinics. Learning how to do portable, dental STMs safely and appropriately is essential. Comments concerning initial STMs included these: "At first, one needs guidance—to jump off and know there is someone to catch you." Dentists new to STMs often need a mentor who can teach and show how the portable dental equipment functions and how everything works on the mission field. They enjoy thinking about their developing-world clinic and missions as that brings joy, challenges, and stimulation.

Figure 13: Intellectual Benefit: Educational/Mentorship Exchange
I like dental teaching and mentoring.



Dentists spoke of attempts to improve dental hygiene in developing countries, saying "We taught prevention and took toothbrushes and bags of baking soda." Some dental teams with hygiene programs documented that cavities went down after their efforts, insisting that teams must encourage hygienists to come, subsidize their trips if necessary, and take excellent care of them as they are so needed.

Most of the professionals embraced mentoring those not ready to do STMs alone. Many STM dentists train dental colleagues from the U.S., acknowledging that since "I have done dentistry and missions for 32 years, I will help others and find it rewarding working with inexperienced providers that want to learn more about their field." Another dentist recommended the "CDS *Dental Mission Manual* that I take everywhere—using and sharing many parts of it frequently."

There are also programs to instruct indigenous leaders with aptitudes towards dentistry and several programs teach extraction techniques, which promote dental sustainability. Dentists proclaimed that teaching locals how to do dentistry has become their focus as they like the model that I-TEC and mPower Approach have in training local believers to extract and clean teeth. One

dentist gained respect through bringing experts to Eastern Europe who followed a business model in three, private clinics.

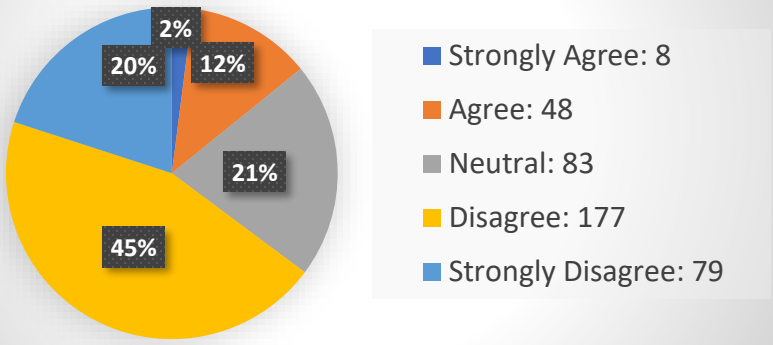
The majority of STM-experienced dentists had been involved with dental student education and mentorship. They said that taking students on STMs provides "light at the end of the tunnel for them and a glimpse of missions early gives life-long results." They remember their school years where they wanted to learn dentistry skills and to work on communication with diverse patients. Dental educators noted that on STMs, students work and learn in different environments where they have limited equipment and fewer options for treatment plans. They become more independent in their thinking. Mentoring dentists thought teaching dental students was "an honor and a legacy" and relished encouraging and mentoring while seeing rapid, positive growth in students' clinical and interpersonal skills, stating, "The students' increased confidence, appreciation for people of other cultures and circumstances, and spiritual growth have been one of the most satisfying things I have done." Other educative dentists desire to "pour into students and tell them that their profession is more than a paycheck." They often stay in touch with the students and continue the relationship.

Dentists hoped that although most students go for the dental aspect of STMs, they would also experience more spiritual benefits and predicted that "those who have been on STMs as students will make understanding, relatable mentors one day." There is a benefit to teaching since mentorship is easier than doing dentistry on STMs, with fewer back problems, fatigue, and stress. Several dental educators were developing STMs that awarded credit for the cross-cultural experience. One dental student said that STMs

> helped me to reconnect to the original desires that I had to enter into the field of dentistry. I loved being able to serve other people with the skills that I am currently learning and felt that incorporating missions into my budding career only helped to establish my desire to continue to do STMs throughout my life!

Intellectual detractors of dental, short-term missions.

Figure 14: Intellectual Detractor: Dealing with Planning/Change
Adjusting to change is difficult for me.

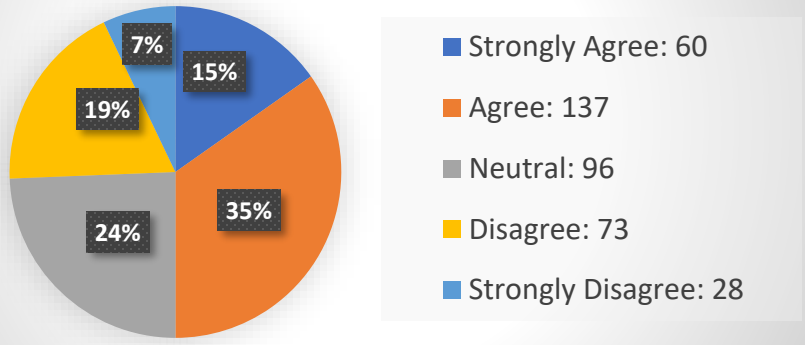


Many dentists worry about doing dentistry on STMs without preparing properly for the treatment needed or are concerned that modifications may be required due to situational factors. STMs may disturb planners and controllers who find it hard to be flexible. Dental team leaders told of taking clinicians who had a great deal of trouble adjusting to doing dentistry outside of their office—they just couldn't be flexible with the lack of a normal set-up and not having the dental items organized like at home. One dentist on her first trip got so befuddled the first few hours of treatment that she threatened to wait on the bus for the rest of the week and not do dentistry; the leader said, "I had to talk her down off the ledge and by the end of the week, she wanted to stay longer since she was now acclimated to the portable dentistry!" One dentist wrote this distressing story on his research instrument comment section:

> I would like to go on more missions but it was much too difficult physically and there were so many things done poorly that I cannot see ever doing it again.' His team had performed only extractions (had not saved any teeth), had not sterilized instruments, had no dental chairs or stools (so the dentist had to lean over the patients who sat in regular chairs), overworked him with little rest provided, and did not control the number of patients (leaving many people disappointed). He was disheartened emotionally and it took him over a month to recover physically from the week-long trips. After CDS members explained how dental STMs can be effectively run . . . he was open to trying

again . . . it is not acceptable or necessary to compromise basic safety and comfort on a dental STM.

Figure 15:Intellectual Detractor:Personal/Aggrandizement Motives
I'm bothered if people boast about their volunteerism.



Most dentists would agree that they are on STMs "to think about others, not self, although some people make it about themselves." They warned team leaders to be careful about using dentists with no Christian perspective and suggest recruiting people who come with a servant's heart and those clinicians that can check their egos at the door while on STMs. A dentist who organizes STM trips recognized that "Missions can breed ego as they increase the professionals' Christian, social status."

Many dentists do subtly brag about their accomplishments and one dentist elevated himself as an "oral physician" which he hoped increased his credibility and emphasized further skills than just fixing teeth. Dentists acknowledged that "It is most important to avoid the temptation to have a white, Savior complex. Too many dentists don't know what to do with the tremendous dental need and wish they could be a god to fix it all." The recognition that comes with STMs can turn one's head as some professionals enjoy being recognized for their service. One dentist advised that

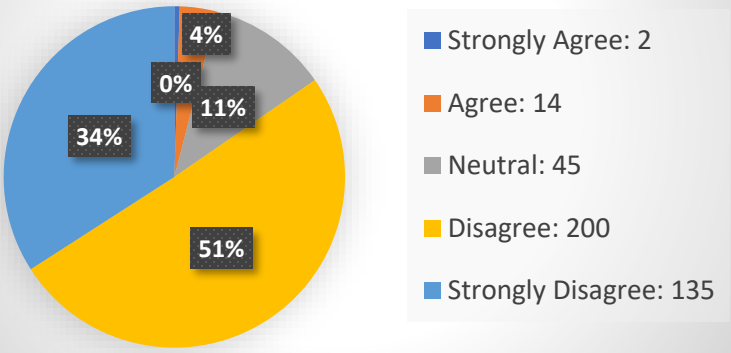
> when you come back from a mission, it is not about "I did this!" It is not all about my experience; you want to understand the transference of intentional living, rather than I

> had a good time. Tell about what you learned, whether it is recycling, conservation of food, or how to administer health care programs in the community. Tout intentional responsibility, resource use, or donation advice. Create your life in the real world—transfer your learning.

Many dentists said STMs keep them "humbled and grounded as they see God at work when they cannot control things as they would like." It was noted that some international dentists seemed too proud to accept help and care must be given in how dental professionals are approached in other countries. Other dental leaders warned their team to refrain from talking about status symbols from home in front of national people.

Groups that the dentists may accompany often have other functions, such as construction laborers or child-evangelism workers. One dentist mentioned a situation where the few dental and medical members of a large team often sat together at meals to discuss the clinic and "the other group members pegged the medical folks as 'snobs who worked inside,' segregated from the 'worker bees who worked outside'—we were working our hardest, too, and didn't appreciate their judgment."

Figure 16: Intellectual Detractor: Dental Provider Inexperience Controversies
I have little tolerance for ineperienced providers.



Most dentists did not mind pairing with inexperienced practitioners or helping those providing basic dentistry, who are learning efficiency and higher quality dentistry. The

professionals often agreed: “I’m here to help and to serve, so I desire to coach those dentists or students to increase competency.” It was understood that one of the reasons for decreased skills is that the dental items needed are not always available and improvising occurs in the field. There are many large gaps in any cultural situation and the first hurdle is often language barriers which can complicate treatment efforts. Other dentists acknowledged a shortage of experienced mentors on student trips and the concerns about students practicing beyond their experience or capabilities.

“National people usually don’t trust dentists, often for good reason,” note STM-experienced dentists, who hear that

> local dentists frequently cause pain and suffering due to minimal skills, poor equipment, and inadequate—or absence of—anesthesia. We often find root tips left in the gums, inadequate fillings, and generally poor dentistry, although many patients have never even been to a dentist before.

The skilled professionals often have to put aside judgment and try to improve the skills of those placed in their paths on STMs.

Recruitment ideas concerning the intellectual dimension. Many dentists mentioned the adventure and sight-seeing as a plus to their trips and advised telling colleagues about the adventures, the resort, the food, and the warm weather of STMs when it is cold at home.

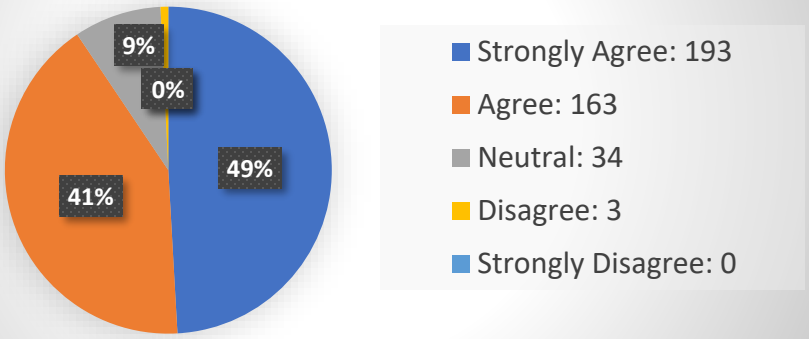
There are many opportunities to teach how to do STMs at current dental conventions, continuing education courses, and study clubs. “I have seen full rooms of ‘wanna-be’ volunteers,” dentists observed, and “I always encourage others by sharing a few STM pictures when lecturing on dentistry.” One dentist acknowledged that a colleague showed him a PowerPoint about missions and “that was the kicker that jump-started me!” It is also important to educate other dentists on how to leave their offices with strategies to cover the home practice.

STM experience may be used to empower others through dental education, including nationals and U.S. dental students who are eager to go on STMs to learn clinical skills. Dental mentors stated, “Beyond just notifying students of dental STMs, they must be inspired and intrigued. We must also reach out to encourage them to return and tie in professionalism as a goal.” Finding a student leader with potential on a trip and paying part of their way, or using a church or school scholarship fund for the next student trip, may it may work as an incentive.

Analysis of the Physical Dimension

Physical benefits of dental, short-term missions.

Figure 17: Physical Benefit: Improvement for Health and Aging
Dental volunteerism helps to revitalize me.

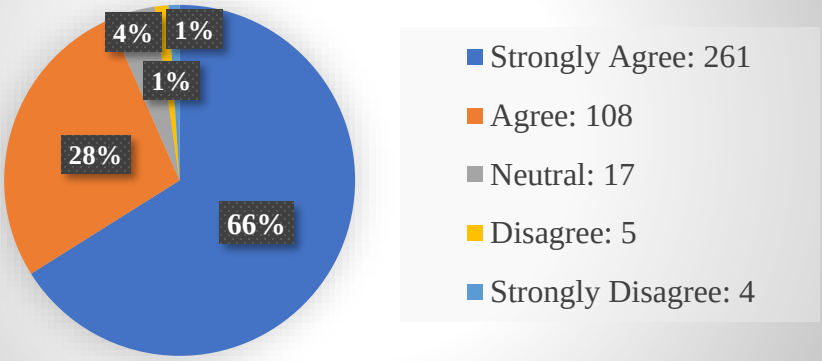


Dentists return after a STM recounting fresh energy, a recharged battery, a reawakening or a renewal. They also reported a supernatural touch bringing vigor on STMs and afterwards due to “divine intervention.” They usually stated they felt good doing missions and “find them extremely satisfying, rejuvenating and necessary” and affirm STMs as one of their most satisfying professional and spiritual activities. Some dentists mentioned STMs as a help to their aging process and credited STMs with keeping them active as they enjoyed the work and the interactions with the team, stating, “it keeps me younger and more vital.” With retirement, a

dentist can spend longer times away and balance their lives better on a mission project and dental volunteering may become a major part of retirement.

One dentist, whose wife did not encourage STMs, seemed especially downcast about his dental office, causing his friends to wonder if dental STMs would possibly revitalize him since so many other colleagues expressed the reenergizing power of volunteerism.

Figure 18: Physical Benefit: Safe and Comfortable Missions
Dental trip benefits outweigh discomforts.



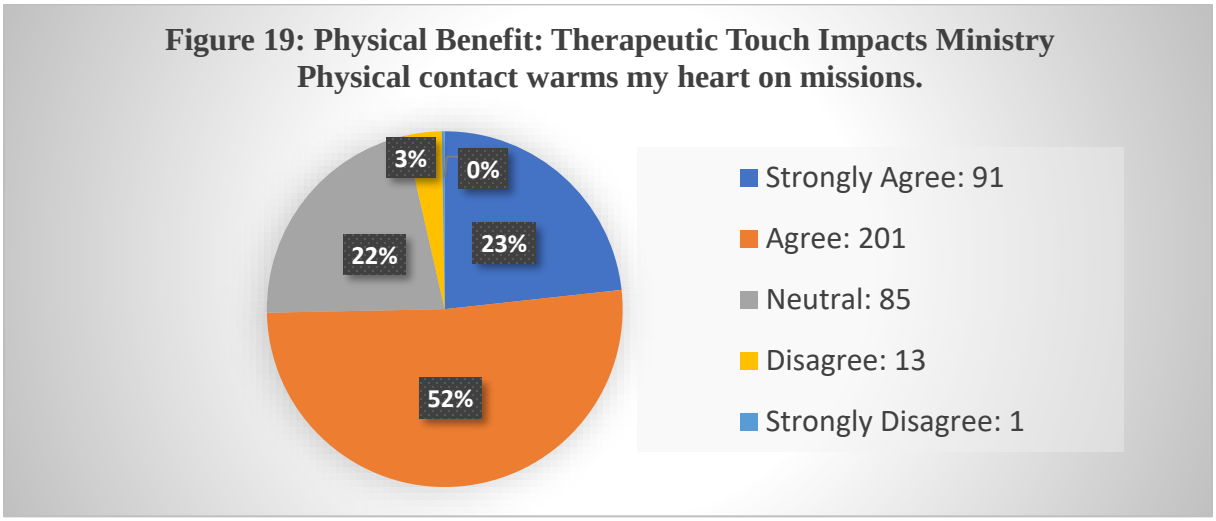
A well-organized and properly orchestrated STM can facilitate a break from the office and even be less stressful dentistry than at-home, dental practices. Effective leadership was identified as a key difference, especially with the assurance of a safe environment with capable local staff. Younger dentists liked the presence of experienced dentists, especially when some leaders prepare the missions ahead and make it easy on the other participants. Dentists touted a leader who "amazed me by making sure the STM was not physically hard, thanks to decent chairs and portable equipment." Often there were dental clinics that were permanently set-up.

Portable sterilization concerns bothered dentists who did not want any part of a dental STM that was not sterilizing (which happens more often than teams want to admit). They were grateful for anesthesia while relieving the patient's current suffering or discomfort since there are still many "dentists" around the world who do not use anesthesia for procedures.

Airlines are now a developed, safe, and fairly easy, modern convenience not available to 19th and early 20th century missionaries. The ability to travel anywhere relatively easily and quickly was recognized as a contemporary marvel. Some dental leaders said they intentionally took groups to places that had excellent accommodations, great food, and comfortable beds so the dentists could get adequate rest and nice meals after a hard day's work.

It was surprising to some team members that they rarely got sick and felt divine protection. When speaking of risks, dentists granted that God protects and the safest place to be is in the center of God's will. They recognized that safe, pleasant, and, even commodious, STMs are possible if organized correctly.

Figure 19: Physical Benefit: Therapeutic Touch Impacts Ministry
Physical contact warms my heart on missions.



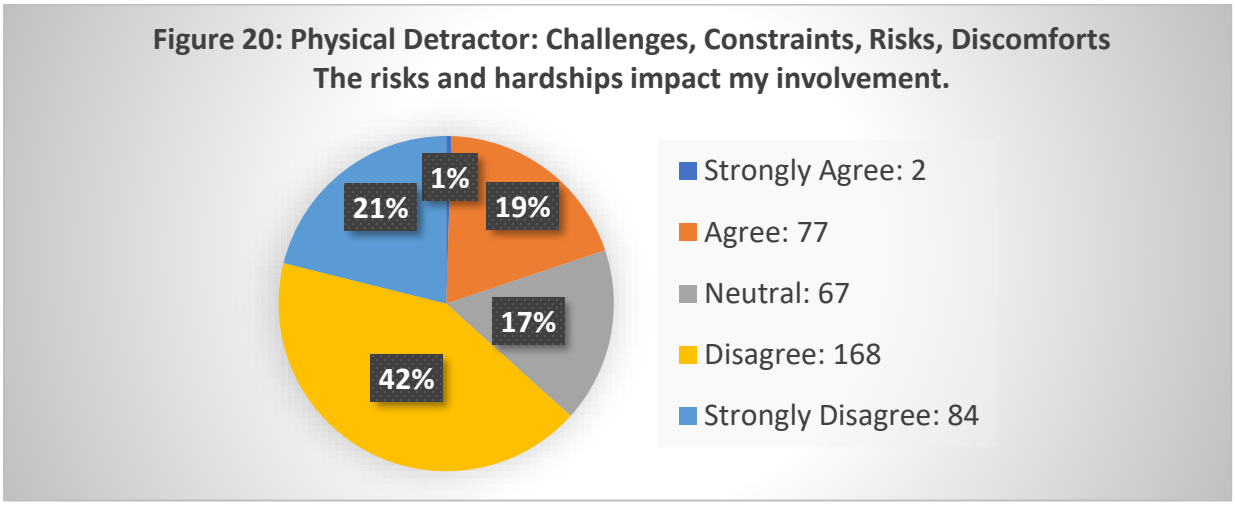
Therapeutic touch enables caring dentistry and is an important feature for many dentists who recognize that "When we reach out and get into the patient's space, there is an instant trust and connection that it may take other types of missionaries years to accomplish." They noted the importance of physical contact in countries where people are marginalized, where human life is often considered cheap, and where women are often mistreated. One dentist agreed that

> People who come to a medical care provider with a physical need have to put their fear aside, to step forward in faith, and to be willing to let another assist them. Touch is a universal language of love, and it can instantly convey warmth . . . With the healing touch

of the dentist often comes an almost instantaneous trust and openness to hear a message about God.

Dentists spoke of the rewards of having patients reach out in gratitude, often through physical contact, hugs, and kisses. They itemized memorable gifts, including handshakes and smiles showing gratefulness, local gifts of handcrafts or homemade items, and situations where patients came many miles to bring special gifts after dental treatment was given. One dentist mentioned that his wife sent a baby quilt to a Muslim friend they had met in Egypt to express Christian love.

Physical detractors of dental, short-term missions.



Some dentists like challenges, stating that even though dental STMs can be hard and exhausting, they can be one of the most rewarding experiences of life, pronouncing that "the harder the mission, the better, because that's when you grow." Other dentists admit it is not easy to leave the comforts of home, but any vacation can bring issues. There was not a consensus on whether STMs were overly difficult or not.

Safety and security risks were brought up most frequently as detractors from STMs. One dentist recounted this story:

> On my second mission trip to Guatemala, we were told that the group there the week before us had been pulled over by the guerrillas, as there were always armed vehicles visible in the area. We had a meeting the first night we were there and our young female members opted to go back home due to safety concerns. Most of us stayed, as I felt that being there to do God's work would protect me. However, when I got back home, my wife told me I would not be going back until our kids were grown; they are now age 20 down to age 9, so I still have a few years before I go back.

Complaints about back problems were often mentioned as an occupational hazard for many dentists or spouses who have back problems that affect their STM involvement. One dentist admitted that "my heart was warm but my back was hurting!" Age and stage of life were frequently addressed as challenges of STM dentists who often go more frequently after their families are raised and when they are blessed with resources. "I am a senior, retired dentist in poor physical health. The spirit may be willing but the body is very weak," intoned multiple dentists. Older professionals often related to these thoughts:

> My health is a factor for not going on a foreign mission trip. I do give and pray and meet to encourage missionaries. I do take them to dinner and help them in my office. I do organize them to speak to the adult Sunday School classes at church. I do share their stories in teaching Sunday School to encourage others to do the same.

Health issues included the possibilities of sickness acquired on the field, as one dentist noted the "development of a bacterial disease, causing dysentery and the loss of 15 pounds—I did take a break from STMs but am now back, wiser and more careful. There is a learning curve to this!" Other dentists needed help with constipation, arthritis or inflamed joints, and refrigeration for medicine. More concerns included malaria, Ebola, coronavirus, and Zika concerns for young women. Creatures brought threats, including biting bugs, spiders, snakes, insects, and even irritating monkeys. Accommodations were mentioned (especially cold showers) but most dentists were tolerant of inconveniences.

Pre-existing illnesses existed for some dentists, including current cancer battles or continuing disabilities; they commented that "My health became an issue for me and I would be

a liability for the team." They identified that their season of STM participation has been halted by illness and that they were now using their experiences to spread the Gospel and to encourage students to use their gifts in missions. One dentist bravely declared: "My wife was diagnosed with Multiple Sclerosis over forty years ago which made travel very difficult because of the support that she requires at home. I provide care at a mission for the homeless population in our town." Other older professionals worry about having

> a medical emergency on the STM and being away from good medical care . . . my wife worries about me if she can't come—but if God gives us breath, He has a purpose for us and we don't give up but may have to do less and not worry about what you can't do, but do what you can as well as possible. It is all lessons in obedience and God may redirect us into things that are better for us and His Kingdom.

Sanitation challenges included unclean environments, toilet facilities of "squatty potties," outhouses, and sandpits behind bamboo fences. Impure food was mentioned often and, in some countries, groups of people ate off the same plate. In other places, the food was monotonous, spicy, seemed or too different to consume.

The weather played a role in temperature fluctuations, unbearable heat and humidity, hurricanes, cyclones, rainy seasons, and more. Complications of the journey were discussed, including long airplane ride where "the seats seem to be getting smaller" or jet lag where "it is easier going than the readjustment when returning after the STM." Missed flights and connections, airline delays, and remote travel were recognized: "The hardest part of any STM is getting on the plane, including obtaining a passport, packing, tickets, and the travel itself. Once you are there it is such a great experience!"

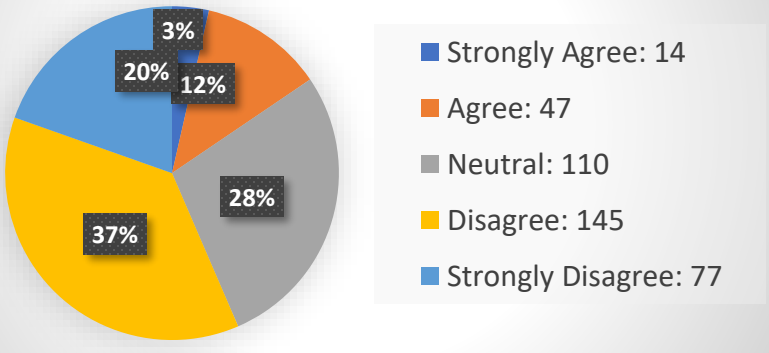
Country custom departments have recently become more demanding with stressful borders identified in multiple, developing countries. One STM couple was approached by a lady who had overheard them talking about their home state in the foreign airport—she had clout and

saved their $5000 worth of dental equipment from confiscation, destruction, and/or bribing fines. Getting medicine into countries was a concern for most groups and other dentists spoke of government hassles with bureaucratic, paperwork requirements.

The dentistry itself posed problems, including portable equipment maintenance issues, extractions without x-rays (as is the standard in home offices), lack of sterilization, and translator and language barriers. Dentists make their home office environment comfortable, where they are surrounded by high-tech equipment, and often cannot visualize performing dentistry in an austere setting. One dentist said that a STM-experienced physician chuckled and stated: "You show us what you need and we'll tell you how to get along without it."

Often, dental team leaders check for travel advisories from the Internet so they will not put their group or family in danger, and dentists said that although people were executed near where they were to serve, "you can't let fear in—faith overcomes fear as long as there are reasonable risks and not an immediate danger." Although here are the risks of going into war zones, one dentist insisted that "if I am called by God, I don't feel I have much wiggle room."

Figure 21: Physical Detractor: Evaluating Myriad STM Costs
Mission expenses are too high for me.



Costs were addressed by almost everyone and many dentists said it was the number one problem. Even though the trips are tax-deductible, "financial bondage becomes a burden to

missions, if not a loss completely to the hope of going on STMs." Patients and friends are often amazed to discover that dentists support themselves and exclaim: "You pay to go?" They related that sacrificial individuals inspire communities and churches to get involved and another dentist, with a large family, stated, "Yes, it's a financial hardship, but that's what makes it real to your kids, who say 'Dad is not rich, but he's willing to do it.'" Other dedicated dentists gave advice concerning placing STMs in their annual budget to make it work. They agreed that they must plan to give charitable dentistry, insisting that all Christians help others in need in some way. Some saintly dentists implored: "Do not worry about the pocketbook—give freely!"

Personal debt and the financial cost of STMs were mentioned often and young dentists often had "massive student loans" and borrowed heavily for their offices, homes, and/or cars. Older dentists remarked that "The young dentists are frequently bogged down while starting their professional and personal lives." The largest STM challenge for many was the expense. Another dentist pleaded:

> This is a real thing that someone needs to pay attention to. Just because we are dentists doesn't mean we can afford the $3,000-5,000 it takes to go on a trip. I completed three STMs while in dental school and it was all on loan. Since graduating, I have gone on one STM and it was expensive for me due to said reasons. I am a Christian and I also like to be a good steward of my finances. I think providing a good portion of funding for those in need who are willing to serve goes a long way.

Also, the expense of providing equipment and supplies is significant compared to a physician who just brings a stethoscope and maybe some medication—it costs a dentist much more. A one-week dental trip providing extractions and restorative services (and renting items from CDS) is $1,000 for portable equipment and instrument kits for one dentist's operatory. To buy the same items would take about $5-8,000 as a one-time purchase. To do the STM safely and comfortably also includes the cost for portable chairs and sterilization.

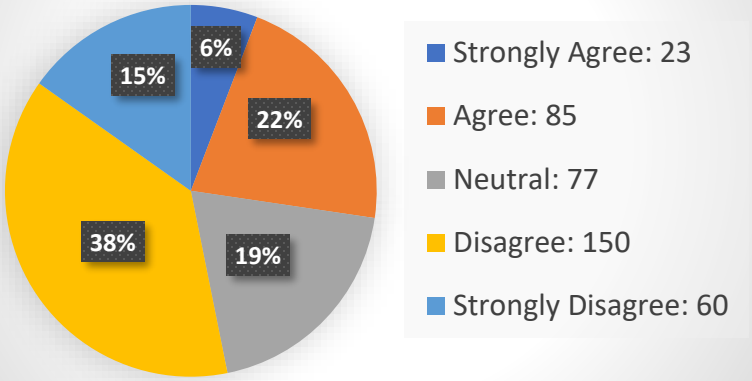
Dentists cried, “The lost income is huge as we close the office and the overhead continues and that costs me big time!” Some professionals had partners that stayed back, although the STM dentist gives up income while absent. A dentist grieved over this scenario:

> Other STMs that allow kids (mine are now 12-14) have been cost-prohibitive. It seems so weird that it can cost way less to stay in a resort and be served than it costs to serve. So, we usually end up doing neither as a family, and I serve alone within driving distance.

Many STM dentists are self-supporting and use the tent-maker model that follows the Apostle Paul’s example, saying, “We should go if we can give since many people think about it, but for some reason don’t go.” They often paid for their office auxiliaries to accompany them, gave ideas for fundraising to staff, had 501(c)(3) non-profit organizations they had formed themselves, or subsidized hygienists to travel, saying “It is difficult to get hygienists as they have families and spouses that rely on them at home. They also don’t make enough, relatively, to travel as a dentist does.” Several dentists worked on off days in the office, where the staff helped without pay and the proceeds go into a mission fund for the office. Bonus incentive plans motivate the office personnel to set goals together and the dentist matches whatever staff members put into their mission fund.

One dental, STM couple gave a portion of their 401K finances to build a facility in the community they serve for STMs, stating, “We wanted to be alive to see it advance God’s Kingdom.” A dental group that annually serves in a developing country was blocked recently due to country politics and instead sent money for local dentists (inspired by concepts in the *Helping Without Hurting* book). One indigenous dentist insisted that “both money and teams are needed—this is not a one-man show! We need long-termers and short-termers (although long-term are the best). Bring them (sic) teams!”

Figure 22: Physical Detractor: Enduring Excess Patient Expectations
Excessive, unmet dental needs overwhelm me.



The number one problem identified by a dentist who had gone on almost 200 missions was the huge dental need everywhere in the developing world; he sighed and noted that the crowds get longer each day no matter what is done with tickets or whatever is attempted for crowd control. Other dentists disliked refusing treatment due to time constraints and the seemingly infinite number of patients. One anonymous dentist wrote this plaintive explanation on his research instrument that capsulized problems that can occur on STMs without competent leaders who protect the STM dentists:

> Most days we work through lunch and breaks . . . often ignoring restroom breaks. The dentists' work days are generally longer and often physically more demanding [on STMs compared to at home practices]. Dentistry under ideal conditions can be stressful. Mission conditions are even more so. Many times, we are our own worse (sic) enemies on these trips because we are conditioned to be productive . . . Since the dental demand is never satisfied on the trips, I think the dental team should establish a fair and reasonable limit on the number of patients they are capable of treating in a day. Leadership should then respect that number rather than force the issue on the dental providers . . . To speak up against this during a mission trip is so difficult because you are encouraged to be a team player and give your all for Christ. Thus, I say nothing. I have served with many one-timer, dental missionaries and the above reasons are why they do not return. Some of us (like myself) endure the excessively long days with the injustices imposed on the unserved patients. If this could be improved, I believe more dentists would serve. Coming home from a trip mentally, physically, and sometimes spiritually exhausted may be fruitful for one-timers but, humanly speaking . . . most dentists cannot ring the bell year in and year out . . . especially if they are returning to private practice.

Dentists agreed that a large struggle occurs as they often feel as though they never do enough on STMs due to a lack of energy after a demanding day. Crowd control is often a problem and dentists say they "must shut the gate or we will be there all night." Police may be required for security. One young dentist summarized the problem of excessive dental need, by stating:

> Going to areas of provider to population ratios of 1:55K is not a valuable use of time to me . . . Decreasing oral health disparities is not the goal of [Christian] STMs . . . However, other purposes of STMs could include evangelism and personal faith growth.

Most dental group leaders recommend focusing on each patient's chief complaint, limiting treatment to 30 minutes per patient, and allowing patients to come back another time, if possible. Doing the greatest good for the greatest number of patients by holding treatment to one area of the mouth is important, even though there are other dental problems. A dentist's wife said,

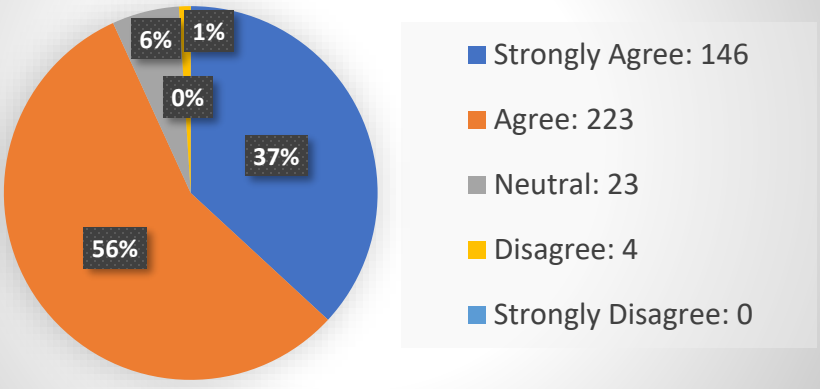
> A guard watched our compound night and day, sleeping in a lawn chair with a gun at night. He had a bombed-out mouth with multiple dental problems. We removed all of his painful teeth but didn't have time to finish his dental needs. I felt so horrible that I couldn't look him in the eyes as we departed. We'd truly worked our hearts out for two weeks, serving everyone we could, but the thought of leaving him—who had sacrificed so much for us—was very difficult.

Recruitment ideas concerning the physical dimension. Many dentists recommended being honest with the expectations of the mission to first-timers since they need to recognize the hazards and have concerns addressed (diet, accommodations, transportation, and more). Possible physical hardships should be included when experienced dentists educate one-on-one to new dentists becoming accustomed to field dentistry. Other suggestions included letting recruits know that hosts will protect and help the team. It was suggested that new dentists try something closer to home first and to see if they can adjust. After trying one STM, it was observed that "new STM dentists may not want to go back overseas, but they may become a resource person, or do more locally, or give in another way. Going repeatedly on STMs is not for everyone."

Analysis of the Moral Dimension

Moral benefits of dental, short-term missions.

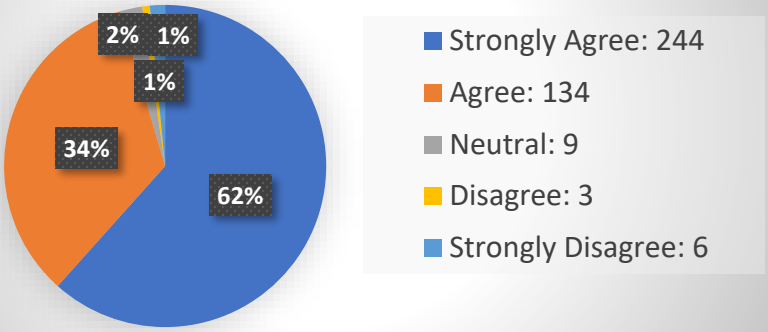
Figure 23: Moral Benefit: Purposeful, Significant, Moral Duties
Doing right, despite sacrifices, compensates me.



Many dentists spoke of a sense of purpose and usefulness gained after each STM, especially for those who are retired. Helping others can be thought of as a meaningful duty without payback expectations. One dentist said, “Dentistry is the most productive form of giving back for me since it is my occupational skill and, if I want to leave a legacy, STMs bring completion.” Most dentists believed STMs have a worthwhile purpose.

Addressing the desire to get people out of dental pain as an essential duty of a dentist complemented the desire to help the less fortunate. One dentist went later in life on her first STM, stating, “I am the ‘Saint of Can’t Nots’—I said no until I could no longer *not* go due to my duty to the Lord and other people to use my dental skills.” They remarked about the wasted dental skills and talent on the golf course or the ski slope, and were grateful that volunteering with dental skills gave them a sense of direction, importance, humanitarianism, and moral intuition. Many committed dentists reiterated that “We are just passing through and we must help others. I’ll go wherever God tells me to go.”

Figure 24: Moral Benefits: Giving Back to People
I like to help disadvantaged people everywhere.

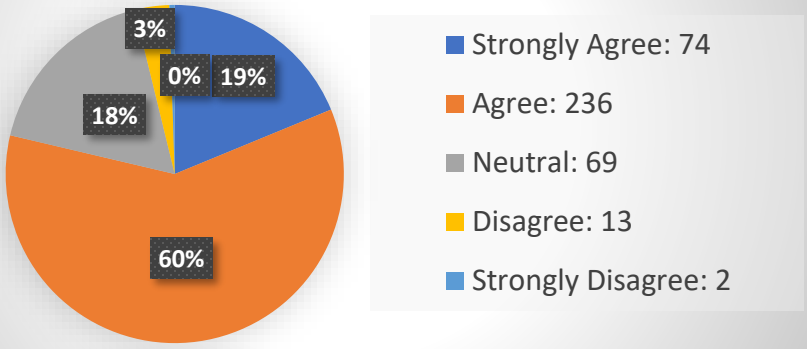


Many dentists said it was important to give back, especially teaching their children that the Bible teaches generosity. They noted the privilege of affecting others' lives positively. Identifying the reciprocity of giving that creates energy, many dentists expressed the belief that God had given to them so they could bless others whom he also loves. They spoke of receiving immeasurable benefits from serving, even much more than the small good they possibly generated.

Many dentists witnessed that the dental need inspired them to a fulfilling opportunity to help others who would otherwise not be able to afford needed dental services. A dentist from a developing country stated, "I was born to serve and delivering dental care through volunteerism is very exciting. The more you give the more God gives to us." After 200 STMs, a dentist said,

> I went on my first dental mission trip at age 16 in 1964 and saw the value of helping destitute people with their physical needs. That was my motivation for directing my educational goals to dentistry. The need for emergency dental care was and is overwhelming globally. My last mission trip was in 2013 when I was 65.

Figure 25: Moral Benefit: Honor, Respect, and Social Justice
Differing familial and social values intrigue me.



Many dentists expressed love for people and a desire to honor and to respect marginalized people by showing God's love. STMs are a practical way to serve others what they cannot afford to do for themselves. Although uncertain of how to impact, STM participants agreed to "a strong desire to help needy people—most dentists are 'fixers' by nature" and they often intoned: "Go globally to help as we have so much access to care but other countries are under-served. There is no better way to be the hands and feet of Jesus." One dentist spoke eloquently:

> We go into these broken societies and with respect and the power of kindness and love, we can show marginalized women the beauty they have. Satan wants to cover the beauty of God's creation (Imago Dei) by having them wear the burkas. We would have no clue of these issues without going on a STM. We must learn to pray boldly for them in the name of Jesus . . . The women were hiding the Bibles we gave them in their clothing to prevent them from being taken away because they felt the power of our kindness and wanted to know more about the Christian faith.

Often dentists remarked about the fascinating cultural insights that are gained on a STM as people look at the world and process experiences through various cultural lenses. Dental leaders were appreciative of local hosts that help with cultural understanding and are often accustomed to having groups that need assistance with local cultural mores. Dentists advised: "Listen to local leaders. Regional differences in customs, culture, values, dress, and food can be

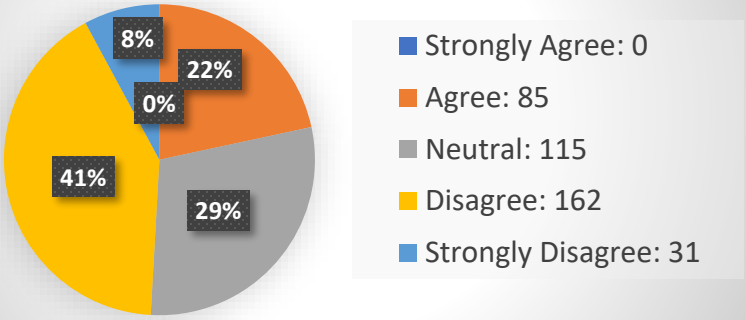
celebrated. God has led the team here to open hearts and minds to the ways of others. The diversity encountered can be experienced without judgment." STM-experienced dentists advise:

> We always try to integrate with the locals since they are 'insiders' as to what is happening locally—it is not good to separate, be elitist, or to not integrate. The locals know what is being said away from the clinic and at night in the village and can help us get along in the community. It is a mistake not to involve locals in the clinic. We emphasize what the locals can bring to the team.

Promoting social justice is an aspect of traveling with dentistry. When dentists return from STMs, some thought it important that they could educate as to the dental need in a way that may influence the global policy table.

Moral detractors of dental, short-term missions.

Figure 26: Moral Detractor: Ethical and Moral Concerns
Differing member behaviors/standards conflict me.

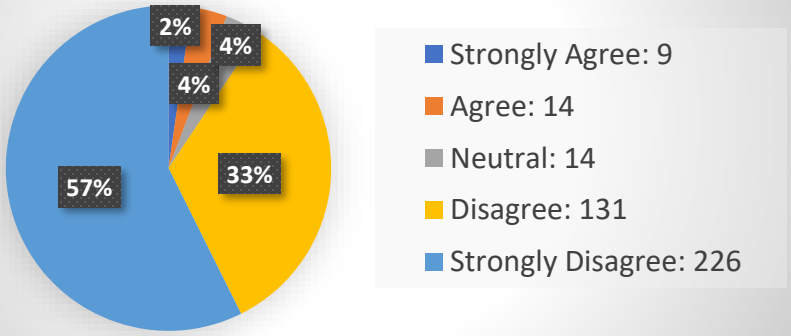


Many dentists communicated surprise (and some judgment) that U.S. colleagues often had little interest in STMs and did not want to hear reports when the team returned. Dentists reiterated excuses given such as busyness, home life getting in the way, a "me" mindset focused on self, other priorities, or not feeling called to STMs. Dentists quoted colleagues who asked, "Why work on dirty people you don't even know?" Other dentists refused participation saying they were comfortable in their own setting so questioned why would they change their lives to take on something unpredictable like a dental STM.

Melding together as a dental group may bring differing behaviors and standards when members are placed together in an unfamiliar setting. Dentists are independent operators and often desire autonomy. Working effectively on a STM requires each individual to adjust, to communicate needs and expectations, and to be especially tolerant of differences and change. Volunteers come from all walks of life and different stages of maturity and many personality differences may exist. Most dentists tried to work with each situation, expressing that "the quality of our unity as a team and our assimilation of new members—especially nationals—may be our greatest witness."

Group dynamics must be addressed and STM leaders can establish a mechanism through which suggestions, concerns, and thoughts can be tactfully brought forward and feedback is given. One leader advised that learning to know and to respect each other helps tremendously.

Figure 27: Moral Detractor: Dealing with Poverty Issues
My priorities don't include helping in other countries.



When dentists observed true poverty in developing countries, they acknowledged that even the poor in the U.S. are rich by developing world standards. Dentists who have gone on numerous STMs state that they never get over feeling sad about the abject poverty. One dentist agreed, saying, "We have solutions to life problems in the U.S., but for refugees or the very poor, there are *no* solutions for their problems." This new perspective is often eye-opening, humbling,

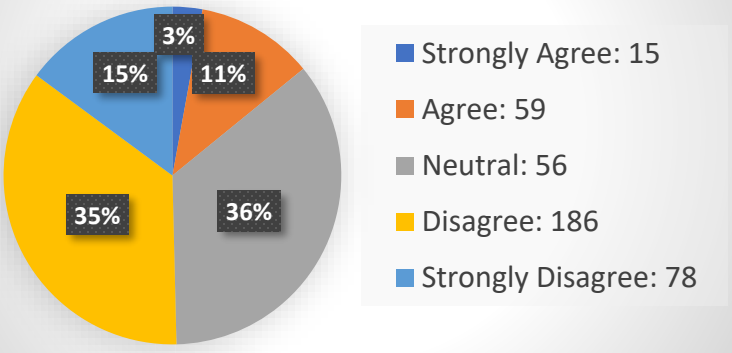
and may bring gratefulness into the lives of STM participants. They related: “People should go first-hand to find compassion for others and see how others have nothing—smell the odors, look into their eyes, and see their desperation.” Most people on STMs learn to not be as concerned with worrying about simplistic problems at home and are thankful that STMs teach a new appreciation for material belongings. Dentists said they get a better picture of how God’s heart must break for the horrific situations of the world and see how God teaches and leads people in hard circumstances. One dentist asserted that “Now nothing intimidates me.”

One Haitian dentist insisted: “I have to do portable dentistry in Haiti because people can’t travel; it is important to help with their teeth to stop bodily diseases.” Many dentists go to promote sustainability through indigenous training programs that assist national people in helping those in their area. Poverty has aspects that can instruct; this dentist comments that

> when you are immersed in other cultures in poverty, you see the beauty of God’s creation in destitute situations. Many poor people have deep relationships with God—not theologically deep—but because they have to depend on him. You see God at work. It enriches our lives since we are caught up in a materialistic society that becomes our god.

Dentists realized that seeing poverty is difficult for people to process since it brings a mixture of guilt and thankfulness.

Figure 28: Moral Detractor: Compromised Standards of Care
Doing quality, portable dentistry seems overwhelming.



Dentists expressed the importance of performing ethically on STMs, stating, “I am used to doing my best, and I feel the Lord’s hand when doing a STM.” They felt they could do acceptable dentistry in the field although they admitted to some challenges and tensions. It is difficult to duplicate their technologically-advanced offices and modifications must be made in austere conditions. One dentist thought that “in America, we over-diagnose and offer quality dentistry with trained staff, while in the developing world we are practicing outside normal U.S. settings with its standards.” Dentists saw that in many developing countries, extractions are the answer to everything in the mouth because they are paid for by the government.

Politics affect treatment as dentists realized that the reputation of Americans may be at stake, especially in the Middle East where many people are skeptical of the U.S. Other dentists worked alongside dental practitioners whose competence they questioned—even identifying U.S. team members “whom I wouldn’t let into my mouth!” One dentist described a young foreign dentist whom she didn’t trust since he was leaving roots of teeth in the patients’ mouths. Many group members were concerned about sterilization as often STM teams are only disinfecting the instruments which is not appropriate.

Most dentists know their capabilities, including this young dentist, who said,

> One of my major concerns in becoming an orthodontist is whether I can still be useful in local and global dental missions. I would like to try to keep up my extraction skills. However, if that is not feasible, I would be interested in leading, administrating, or organizing dental missions.

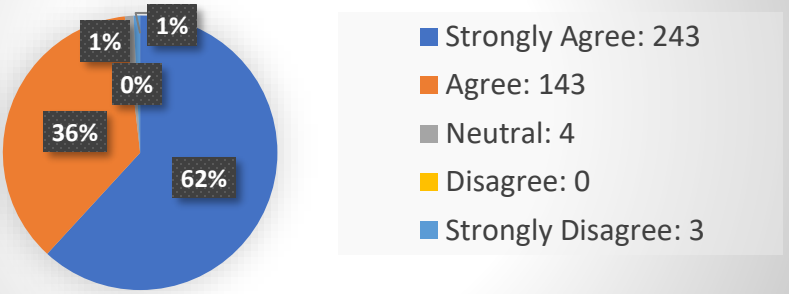
Recruitment ideas concerning the moral dimension. Returning dentists suggested questioning newcomers to STMs about their motives since many dentists can be reminded of why they chose dentistry—"not to be a millionaire, but to care for people.” Other dentists recommended that recruiters cue into dentists’ hot spots and custom-sell STMs by targeting what might excite professionals about STMs. One dentist thought it important to recruit people for

their benefit "but be cautious in promising them that they will change. Many dentists don't want to be changed." Another dentist said he always guaranteed two things to first-timers—that the STM will be better than could be expected and that they would want to do it again. Other dentists regretted that they had not started going on STMs earlier.

Analysis of the Emotional Dimension

Emotional benefits of dental, short-term missions.

Figure 29: Emotional Benefit: Joyful, Positive, Empathetic Living
I find it emotionally uplifting to help people.



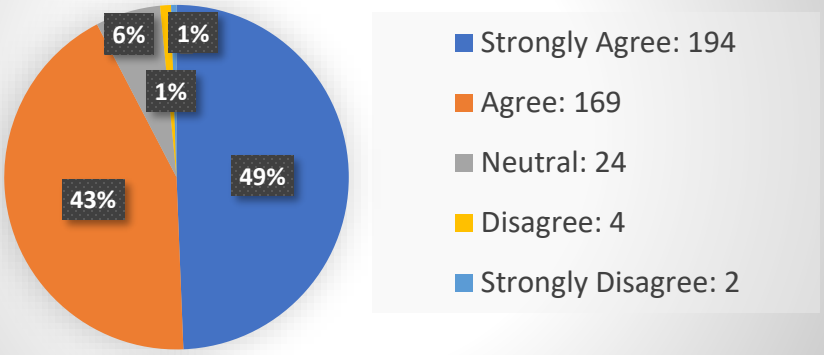
Often dentists were emotional in the interviews, affirming that their hearts were touched as STMs brought great joy to them. One dentist exclaimed that "Volunteering and leading local dental clinics is what I do for fun on weekends!" Many dentists told stories of their conversions to Christianity and to missions, and this dentist articulated what many dentists indicated:

> Dental missions have been an integral part of my professional and spiritual journey. Missions have shaped me and affected my life and the lives of those around me more than perhaps any other earthly thing (all the trips have been in support of Christian outreach and evangelistic efforts). I am confident that dental missions were meant to be part of my future when I received Christ as Savior. He moved me into missions.

Many dentists also spoke of the rewards of empathic living and described STMs as bringing fulfillment, immeasurable joy, and enrichment to their lives. One dentist noted, "It is always the honeymoon stage on an STM because you generally are not there long enough to get sensitized to anything." Another dentist agreed that "It's that feel-good thing, where you glow

because you did something special for someone who can never repay you." Most participants believed that the blessings and rewards of STMs were too many to count. One dentist told how the national people "provide a 'hug circle' when we are leaving and the children pray for us while their leader prays—the children fold their hands, scrunch their eyes closed, and murmur prayers along with the leader. We love it!"

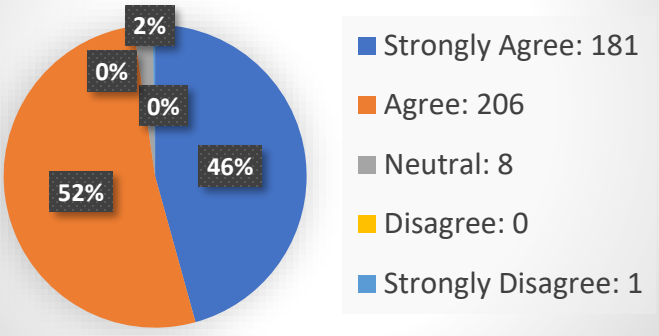
Figure 30: Emotional Benefit: Self-Esteem and Self-Actualization
Dental mission trips personally fulfill me.



Many dentists spoke of the significance and self-esteem STMs give, saying they felt useful serving God, are greatly fulfilled as Christians and dentists, and easily become addicted to the "helper's high." One dentist had been on over100 STMs and said joyfully, "Thank God He made me a dentist!" Dentists often mentioned the fun of being inventive, creative, and ingenious on STMs, whereas, at home, they love hardware stores and trying to think of ways to improve STM equipment. As STMs bring self-actualization, dentists thought they also provided holistic growth, helped develop leadership skills, and fulfilled truth-seeking and acceptance of God's work in the world. Many dentists felt affirmed on STMs since patients are thankful and impressed with the outstanding dentistry they had not experienced before. A dentist said, "I liked seeing people's faces in total appreciation and the sparkle in their eyes."

Other dentists emphasized the need to build up teammates on STMs, noting that it seems that everyone has an invisible sign hanging from his or her neck stating "Make me feel important and needed, please." Often when the dental assistant is a family member or friend in that unfamiliar role, the dentist must attempt to be encouraging, thankful, and supportive since there is so much to learn in a short time.

Figure 31: Emotional Benefit: Overcoming Diverse, Troublesome Emotions
Gaining new perspectives on my life is helpful.



The dentists spoke of troublesome emotions adopted in their affluent life that were counteracted in the developing world, such as not taking creature comforts for granted and a softening of the heart from the callousness of the developed world's rat race. One dentist said he can tell when it is time for a STM when "I get 'antsy' in my practice at home and complain about little concerns."

Dentists believed that STMs bring gratefulness and appreciation for their material possessions with a greater acknowledgment of the dental opportunities, the technology, and their amazing home offices. However, on STMs, dentists are glad to not have to agonize over paperwork and insurance claims as they have the ability to just help people without other considerations. Dentists noted that STMs bring a focus on their love of dentistry and they learn not to take the skills they have for granted. One dentist agreed that "Getting out of the profit

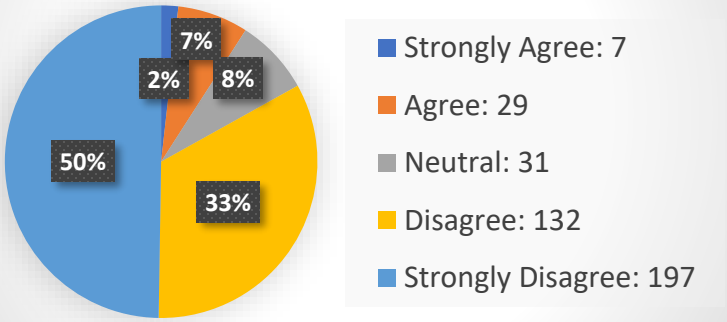
context and using one's gifting in an altruistic way is rewarding, refreshing, and opens new appreciation for the abilities one has."

Dentists are convinced that STMs help them overcome greed, materialism, and hoarding, saying "We come back and cleanse the home of excess. I have less want and STMs keep us from extravagance giving appreciations for what we have. I focus on what I have and not on what I don't have." Dentists are persuaded that STMs make them more content when they see people in countries who are just thankful for a little to eat and a small shelter. Dentists also felt that God gives them extra patience and tolerance to endure the constraints on STMs because they "are more tuned into Him." Dentists think that STMs produce a creative, flexible spirit to face obstacles so they feel stronger in their coping abilities.

Many dentists compared the refreshing, unentitled patients on STMs with home office clients who "demand their due and insist on preferential and unobtainable dental treatments." In advanced countries, the dentists often commented that narcissistic patients are jaded, have high expectations, complain often, and have a nonappreciative attitude. On STMs, the dentists are often happier treating patients who are grateful for any treatment given.

Emotional detractors of dental, short-term missions.

Figure 32: Emotional Detractor: Disturbing STM Emotional Reactions
Going on a mission would be out of my comfort zone.



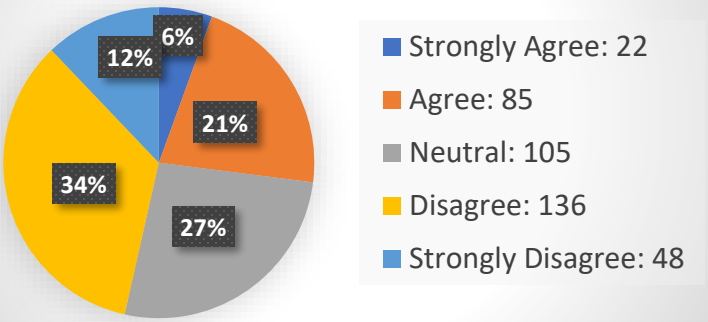
The majority of dentists feel out of my comfort zone at times on STMs. They faced fears of inadequacies, homesickness, the unknown, the developing world, and the inability to be flexible. Other concerns involved prejudice, language barriers, equipment failures or personality conflicts. One dentist worried about boundary issues:

> I am leery of the lowering of boundaries that can occur on STMs and how that gets translated in the field and on return to normal day-to-day. I had boundary issues with staff on STMs that resulted in significant moral failings and people losing jobs. I am not saying this is common occurrence for me or others. There were many other contributing factors. Nevertheless, the question about physical contact gave me pause. I had previously been very enthusiastic about taking staff on STMs.

As one dentist so aptly stated, "Without God, there are many fears and anxieties when facing uncharted waters." Other dentists suggested pre-trip meetings to discuss fears and solutions, to align expectations within the group, to teach cross-cultural tips, and to pray. As team members pray together, they are encouraged to hear the heart and the concerns of fellow group members to find the cohesion that comes from sharing faith in Christ.

Comments addressed the introvertish tendencies that many dentists identify as they become used to practicing in small cubicles by themselves, with only one patient and a trusted assistant. Some introvert dentists have to watch themselves on STMs as they have trouble being together almost continuously with a team for a week or more and may get exhausted.

Figure 33: Emotional Detractor: Compassion Fatigue/Burnout
I often feel guilt over being more blessed than others.



Several dentists spoke of being workaholics—even on the STM field—and had to watch carefully to keep balance in their lives. Dentists prescribe "STMs of at least a week as a cure for burnout—they come back renewed." However, dentists who have spent years in the developing world on STMs noticed that the passion is not always there and, after many trips, one can get jaded to the curiosities of the developing world and get easily sensitized to difficult emotions.

Many dentists can have subtle feelings of guilt when they see the poverty and need in developing countries compared to their lifestyle. Dentists realize that people in developing countries do not seem to know they are poor by industrial world standards, unless "people like us come and show them the difference." One dentist felt guilty when watching the nationals get only $8-10 a day for working 12-hour days on tea farms. Returning STM dentists find that fancy technological items, elaborate clothes, and pictures of their homes, cars, and possessions are inappropriate in a STM setting. Dentists were uncomfortable when team members displayed or talked about material things, status symbols from developing countries, and their affluent lifestyle at home, advising, "Do not be a hypocrite by saying spiritual aspects of life are most important to you when your behavior, appearance, and 'stuff' speak louder." Dental leaders concur that:

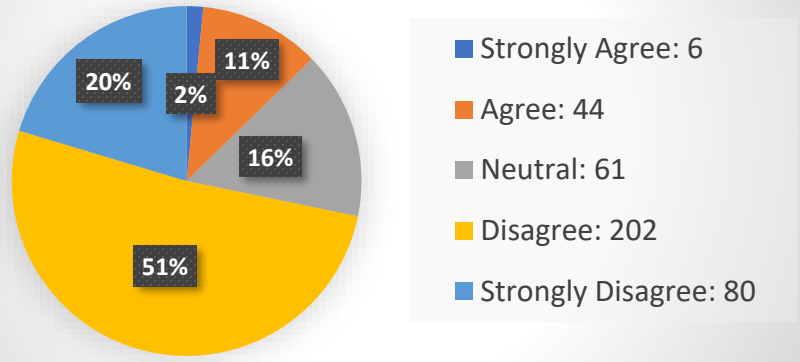
> Many people living in material poverty feel inferior, helpless, and worthless. By bringing in expensive equipment and fancy technology, the dental team may remind the local people how poor they. Even little things, like a fresh change of clothes every day, are unintentional statements of the Americans' wealth.

One dentist felt uneasy when his hygienist showed national people her photo album displaying her nice house, the condominium where she snow-birded, her striking church, and other pictures that displayed an abundant life in her developed country. One STM leader suggested that

> jungle dwellers are people who all have multiple, waterfront homes and spend most of their hours hunting and fishing—wouldn't we all like to live like that?! They sit around in

their stained clothes, spend time telling stories and eating from delicious-smelling pots, and are rich in their own ways.

Figure 34: Emotional Detractor: Cultural Dissonance/Re-Entry Issues
Adjusting to change is difficult for me.



Cultural dissonance can occur with the strangeness of other cultures and dentists identified problems, including energy drain and spiritual resistance. It was surprising how often the word "guilt" was used in the interviews. Dentists mentioned guilt put on by older family members or spouses that don't want them to go, mixed emotions of leaving their family, and concerns that they will miss normal home comforts.

Re-entry issues may bring angry family members who are upset or out of sync because the dentist left and little children who often don't understand. Dentists are conflicted, saying although they are "bit by the bug" of STM volunteerism, others do not always comprehend the variables, the call of God, or the great dental and spiritual need globally. Friends and family often do not want to hear about the STMs and other home dental people avoid STM participants as they feel guilty for not going.

Recruitment ideas concerning the emotional dimension. Dentists agreed that other people may get enthusiastic about STMs but getting them to commit is much more difficult.

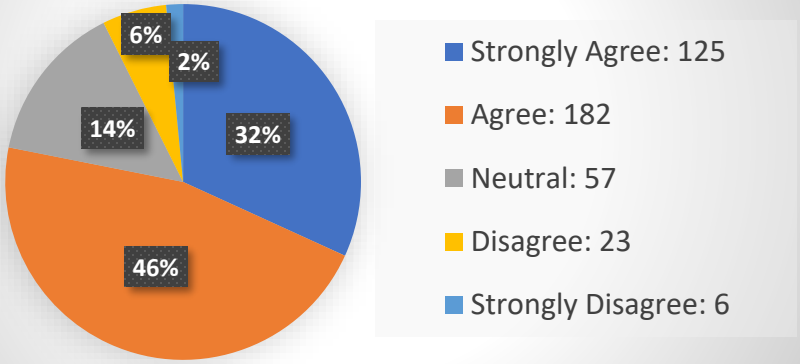
Many dentists thought that potential team members may be persuaded to come once to see if interest is sparked.

One dentist identified the "WOO" factor—the ability to get people involved factor, which includes being excited and passionate about STMs by painting pictures of what is enjoyable and using contagious enthusiasm.

Analysis of the Social Dimension

Social benefits of dental, short-term missions.

Figure 35: Social Benefit: Inspiring and Encouraging Followers
Influencing others is a goal of my mission.

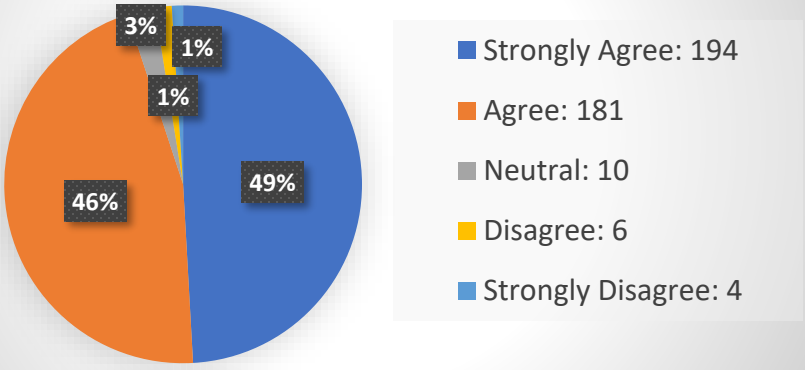


Many dentists want to impact others by their example since volunteerism is often a family trait that was passed to them through parents or exceptional mentors. One dentist reminisced, stating that "Faith is more caught than taught and the children will imitate us." Parents were delighted to find out later that the impact of their STMs influenced their children. One dentist's son put on a college entrance application how a STM had changed him much after the trips and another dentist noted that his children talked about STMs as being their favorite family vacation. Dentists wanted their children to see they were not focusing on making money but were putting their treasures into helping others and felt that even if the children or grandchildren go only once, they will always remember the STM. The best aspect for some

dentists involved letting the young people see what their parents did occupationally and many older children followed that career path and changed them from being self-centered to other-focused.

There are groups like the CDS, the CMDA, and WDR that inspire, educate, and equip dental STMs and provide relationships for those who are like-minded about missions. One dentist said, "I hope CDS will always be here as a way for dentists like myself to have access to equipment and guidance before a trip. The organization is helpful and welcoming. Without CDS many mission trips may not have happened." Another dentist lauded another mission organization as a group of people committed to the Lord and serving faithfully—a community outside the local church and uniquely made up of different denominations with a common purpose of STMs.

Figure 36: Social Benefit: Fostering Relational, Teamwork Benefits
Working on a team is rewarding for me.



Many dentists enjoy the social aspects of STMs and the comradery they do not always experience in a solo, dental practice at home. STM dentists love to watch fellow Christians working together, supportive teamwork on faith-based projects, and intergenerational service with young and older dentists working together with a unified purpose. One dentist said, "The finest people I have ever met have been those on my STMs. We have the same heart!"

Dental group leaders try to be inclusive and create jobs for everyone, knowing that it often becomes evident why God puts certain people on each team. Each individual wants to feel assured that his or her services are valuable. One leader said,

> I like to know what everyone will do, but I have to give God the room to work—sometimes the team members who are not dentists have to find their place and reason for being on the team. One woman found her gift in telling Bible stories to children and another young man with engineering skills helped with wiring, equipment repair, and various maintenance tasks.

STMs can bond and strengthen marriages as explained by many dentists who said it grew husbands as spiritual leaders and helped spouses to understand the dentists' stresses and how each interacts with other people. Married couples who support and encourage each other are great role models for dental students or other young people on the trip who may need to see that example.

Dentists usually embraced taking their families and told stories of the benefits. Since many families take two to three vacations a year, the dentists reasoned that one could easily be a STM where the family unit can serve together. Other dentists raved that STMs had a profound effect on their children's lives and gave them a point of contact to have meaningful discussions where life lessons can be taught—such as caring for the poor. The different cultures were informative for the homeschooled family or time could be spent with family or church members who were full-time missionaries. One dentist laughed as he said, "If you take your kids to a one-star place rather than a five-star place like Disneyland, they will think you are wonderful parents for providing hot water and a toilet, whereas they'll be depressed after Disneyland."

Many dentists spoke of taking employees along as a great morale booster for the staff and thought that STMs creates a loyal staff as they draw close as a team when serving. Some

dentists encouraged staff to bring their families as it makes for a lower turnover in the office because spouses urge them to keep working for the generous, serving, Christian dentist.

Patients notice when their dentist has a servant's heart and it makes a difference in how the patients trusted the dentist. As one dentist explained, "Our patients at home increase their admiration of us and know that we are not just money-grubbing doctors but willing to put our faith into action and sacrifice to serve others." Many dentists said similarly that patients at home were impressed and interested in the STMs:

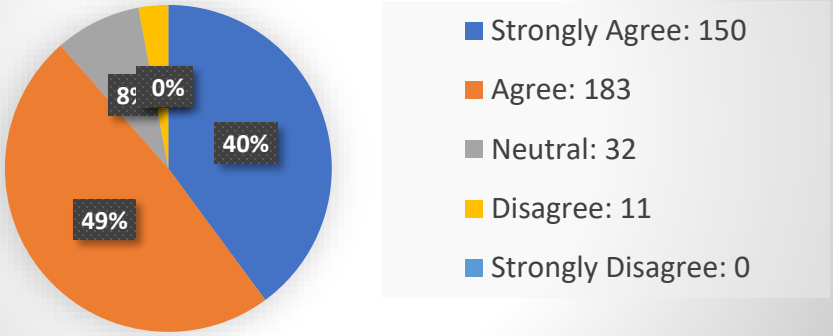
> My patients donated and contributed to my trips and it helps with internal marketing; patients love to hear that their dentist is doing international work and my staff loved it, too . . . Although not intentional, it becomes a practice builder as patients are proud of their dentist for being charitable. The dentist's name gets in the paper, word gets out, and it is admired. Then, patients want to donate to the endeavor and it is a real plus to the practice. Most patients ask about my latest trip when they come in.

Often, dentists had photo-books of STMs in the waiting room and they recommended flat-screen TVs with rolling pictures of STMs, noting that patients wanted to join the dentists after seeing pictures in the office.

Relationships are developed deeply on STMs and dentists were grateful that some of their STM friends have continued traveling with them—some for 20-40 years. These profound friendships with other dentists provide a core group of supporters and team members. Other dentists remarked that on STMs they often meet dentists from different cities in the U.S. and appreciate being with like-minded' people who give various dental and spiritual perspectives.

Home church support is important and dentists shared how the body of Christ brings special gifts as they pray and support each other in serving together and seeing God's answers within their common goals. The STM experience also informs the home church of all that God is doing around the world.

Figure 37: Social Benefit: Relationships with Nationals/Missionaries
I embrace socializing and relationship building.



Continuing relationships with the local people are valuable to most dentists who return to serve and build friendships and connections with people who may almost become like family. Many dentists like to serve in established clinics and feel consistency is important by regularly staying invested in the lives of the same community and the local government. One dentist couple said, "We found the locals so giving of unconditional love and we learned from them. We loved meeting and loving the people and they loved us back!"

Dentists said that young people on STMs from advanced countries get to meet real missionaries and experience patients who are warm and friendly. One dentist told a story of a Yazidi man who dreamed an American would show up and the dentist realized that he had answered that dream. The Yazidi was amazed and decided to go to the Christian church and left the dentist wondering what would have happened if he had not come. Another dentist told of a lady in India who had prayed for 30 years for missionaries to come and she felt the dental team was an answer to her prayers. Another group was blessed when a10-year-old wanted his mom's teeth fixed (not him, even though he needed it). One dentist noticed that

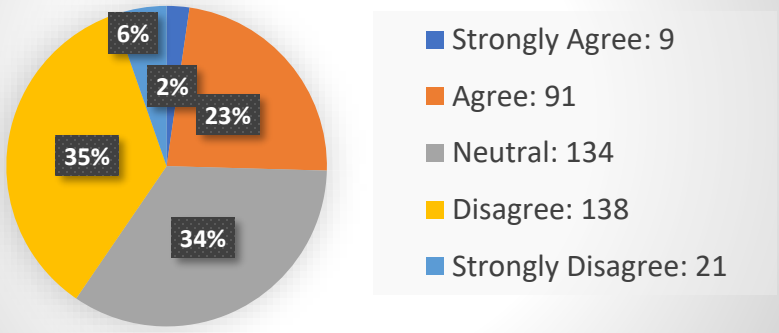
> The youth there in Albania were refreshing in that they had no pierced body parts or tattoos. They weren't playing games on phones (few had phones) and they exuded laughter, joyful comradery, and caring. It brings a two-way, beneficial blessing where we're blessed by what we see and they're blessed by what they receive.

Dentists thought it was good for young people to see other teens who have few possessions being so happy, creative, and active. Often the happiest and most fulfilled people dentists meet on STMs have little material worth. Going on trips to meet different people of different cultures and then serving them as God opens those doors of opportunity can be rewarding. Dentists know that

> what I have learned about myself and others in those surroundings is priceless. When we arrive in heaven and will be able to understand the languages of all the believers that are there will be so fulfilling as we praise Jesus together. Mission trips give me a glimpse of the diversity that will be in heaven. What a glorious day it will be!

Social detractors of dental, short-term missions.

Figure 38: Social Detractor: Teamwork and Interpersonal Conflicts
Group dynamics are a major stressor on missions.



Dentists spoke of challenging team relationships and shared that there are often personality conflicts and frequently “a quirky person that drives everyone bonkers.” One dentist observed that here are many conflicts in the Bible between people, too, and that conflicts sharpen and bring growth to groups. Dentists mentioned that controversies may arise when people do not have the spirit of cooperation, if there is friction with different faiths, or if participants may not have the same focus or culture as the leaders.

Some dentists accompanied leaders who are disorganized—either dental professionals or local leaders and learned to minimize frustration in various ways such as selecting a STM with people they knew and trusted, questioning the leaders about details, and matching their goals for

the trip. One experienced leader said, “The bigger issue in choosing team members is who *not* to take—some prospective team members do not have the right motives of loving people and serving the Lord. Some are just self-serving.” Dentists touted organizational skills, saying

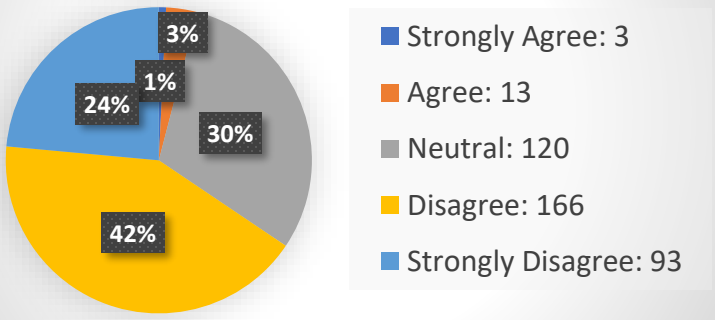
> There are always enough challenges on any trip, and the more ability to provide a stable, well-supplied, and organized clinic, the less the stress level and consequently the better the focus on the tasks at hand, to deliver caring, compassionate care with a servant’s heart to better minister to the people you came to serve.

Other disconcerting issues concerning dental STMs included professional spouses who might get bored in supportive roles, losses of key mission leaders where the annual mission outreach might flounder, dental specialists who had conflicts with general dentists, mission agencies who spread themselves too thin, and church leaders at home or on the local field who may not be encouraging. Older dentists (and introverts who like private time) often recounted the difficulty of after-hours expectations as this dentist expressed that

> I am now retired—age 66. I love mission work, but the aforementioned is getting harder and harder. Many times, we are required to participate in community building and/or social activities . . . after a long day in the clinic. I am not talking about team meetings. I am talking about three to four-hour social gatherings with the host community. I understand why these gatherings are important and necessary BUT these gatherings should be optional for the age 65+ missionaries who require more time to recharge their batteries. Getting back to your room late in the evening is very difficult for older ones.

Most of the teamwork issues depended on the leadership and preparation of the team.

Figure 39: Social Detractor: Burdening Nationals/Missionaries
Sending money is better than sending teams.

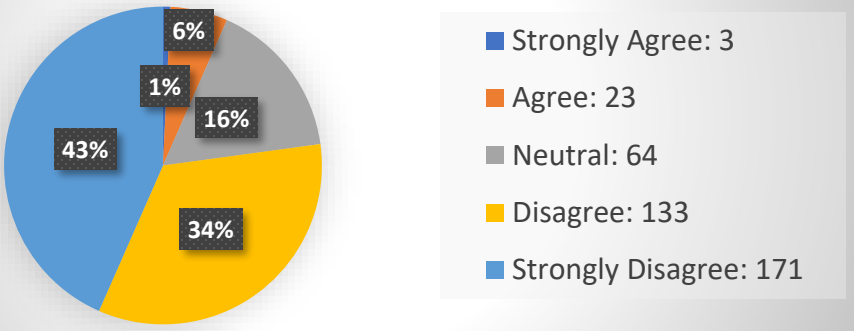


Many dentists agreed that it is challenging working with other missionaries and locals of different ethnicities and regional governments. A continuing relationship helps as it is harder and without consistency if the team only comes once. Several dentists thought that long-term dental missions are a large problem although most dentists do not want to relocate permanently. One dentist grieved over this situation, writing:

> I got to participate in our church's many-year partnership with a village in Mexico. Our whole family went (kids were two and four at the time.) The locals were able to fund a nearby dentist to visit their town for a month for the cost of me going for a few days (and that was only slightly more than the flights, which is great!) But ohhhh, (sic) we miss it! I had hoped we would raise our kids going there at least once a year, but that was about me, not about the people in the village.

A dentist who had been STM enthusiasts before accepting a full-time, dental missionary position was thankful for STMs if the team came with the right attitude, worked in line with the current ministry focus, was aware of follow-up necessities, and were careful to not be a distraction to the ministry. Another full-time missionary dentist said, "STMs, when done well, are a great blessing for those living abroad but can also be a great stressor. Make sure to consult on-field hosts for their needs. Thanks for being willing to serve and may God be always glorified!"

Figure 40: Social Detractor: Home Responsibilities/Concerns
My family and friends don't encourage my mission trips.



Most of the dentists immediately talked about the detractors of leaving their home practice due to the debt and the continuing overhead, especially for a solo practitioner, although time is needed if going far—due to travel time, jet lag, cost-benefit, and recovery time. Dentists advised that the trips be kept short because 60% of offices are solo, private offices and they can't close for long. Dentists had many worries about leaving their home office, including the possibility of closing down or finding replacement dentists, exhaustion after the trip, the extra effort it took to make up for the lost time, and the month it may take to catch up with the patients who needed to be seen when the dentist was gone. STMs cost dentists the lost income in addition to the expenses of the STM and often the staff is unhappy when the dentist leaves. If in a partnership, the dentist may still find it difficult to get time off. Other dentists said their colleagues were eager and touched by the idea of STMs, but do not come as the sacrifices are great. Several dentists worried about their patients at home and were

> discouraged by others' responses—one pastor's wife who was a patient told me 'What happens if I have a dental emergency when you're gone? Don't go. I wished she'd say she would pray for me. Yes, it does affect my practice at home when others go to another dentist because I am not there to treat them, but I don't need their money.

Leaving family members is often a conflict and spouses may not allow the dentist to take the family's vacation time and money to do STMs or may miss the income that STMs take. Some dentists had aging parents, young children, or responsibilities for home church ministries that made STMs a true sacrifice. Some dentists would miss grandchildren whose families relied on their support or wanted to use vacation time to see grandchildren or other relatives.

Many young dentists said they were starting their families and did not want to leave their spouses at home with young children for too long and admitted to worries about Zika, malaria, dengue fever, among other dangers.

Recruitment ideas concerning the social dimension. Many dentists related that recruitment is influenced by other people and is spread to their friends. Each STM dentist can be an educator—giving hints, answering questions, encouraging those they meet who have giving hearts. “Recruitment goes easier by word of mouth,” said a dentist who “talks to good friends I work with. I invite them to my office with their spouses to see pictures and discuss equipment. The big hurdle is the first time.” It was emphasized that dentists should always go with an established group and branch out by themselves later.

Dentists suggested recruiting those you know, using the personal touch of one-to-one in encouraging colleagues, and stressed the importance of building team relationships ahead of the trip. One dentist tells his friends that he wants to spend time with them and that a STM would be a good opportunity.

Dental mentors enticed dental students to go with the social incentives of bringing friends, increasing their social capital with significant others, colleagues, or mentors that may benefit their careers, or bonding relationships with spouses, family members, or staff. Financial incentives may work as the cost may be lowered if participants bring friends.

Other dentists suggested trying websites (including CDS, CMDA, and WDR) or using Facebook or social media to announce upcoming trips. STM advertising can occur through churches, universities, local offices, local dental journals, and connections at dental exhibit hall booths. Recruiting by e-mail and phone contacts can enlist those who have gone before as a core group. Recruitment suggestions included personal contact since most dentists want to go with someone they trust—an “all-in leader.” Instantaneous feedback is important when those interested in STMs call for information, or they may just move on and call the next organization. Another STM group always recruits STM-experienced dentists and wants to ‘eye-ball’ them first

to see if they fit the goals of the organization. Many teams have their core, trusted group that they pull from repeatedly.

Evaluation of the Research Design

The mixed-methods, phenomenological research design was exceedingly superior to merely performing a quantitative research study or a qualitative study alone. The triangulation that occurred with this research is substantial and significant as Roberts (2010) comments that the aspects together "in a single study complement each other by providing results with greater breadth and depth" (p. 145).

Although one statement in the research instrument was inadvertently repeated twice (Adjusting to change is difficult for me), the researcher decided to leave it as the 2nd and 36th statement, to be evaluative in noting the consistency in the dentists' answers. Most of the statement responses to those two items matched, with an insignificant number varying by only one box to the right or left of the 36th statement as compared to the 2nd statement on any given research instrument—therefore constancy was established for the instrument responses.

This researcher felt that the three benefit statements and the three detractor statements in each of the six holistic dimensions provided much data about each area being studied without the research instrument being too lengthy. Several dentists commented that "the items are appropriate and I would be interested in the results." One dentist said, "Some of the questions are hard to answer because, in some instances, it is an 'agree' and in other instances, it is a 'disagree,' but we can figure that out in the interview." Thus, the value of the qualitative interview following the quantitative research instrument is confirmed.

The interviews went exceptionally well in establishing further data on the six holistic dimensions and many valuable stories, thoughts, and concepts came forward that suggested, for

the most part, the encouraging benefits of dental STMs in the lives of the dentists. Most detractors were insignificant to the STM-experienced dentists.

Chapter Four has presented the compilation protocol and measures, the demographic and sample data, the data analysis, and findings, and an evaluation of the research design.

CHAPTER FIVE: CONCLUSIONS

The Christian dentists of this research study resoundingly agree that the holistic benefits of STMs are significantly balanced in the six dimensions—spiritual, intellectual, physical, moral, emotional, and social—and outweigh the distractors to STMs considerably. These dentists desire to help with the dental, global need of oral diseases, which Peres et al. (2019) document

> as a major global public health problem, having both high prevalence and major negative impacts on individuals, communities, and society. Globally, over 3.5 billion people have oral diseases that are chronic and progressive in nature, starting in early childhood and progressing throughout adolescence and adulthood and into later life. Oral diseases disproportionally affect poorer and marginalized groups in society. (p. 256)

CDS members (2015) concur that "as Christian dentists, we are obligated not only to make disciples but also to use our special skills of healing" (p. 9). This study has aligned with the goals of assisting with the global dental needs while benefiting the STM dentists holistically. Benefits and detractors on STMs will be summarized (fulfilling RQ1 and RQ2) and recruitment recommendations will be summarized for the use of STM leaders of Christian organization (fulfilling RQ3).

Purpose Statement

The purpose of this mixed-methods, phenomenological research was to analyze quantitative and qualitative data to identify and to understand the benefits and the detractors of dental, short-term missions relating to Christian dentists' holistic development involving the six dimensions of spiritual, intellectual, physical, moral, emotional and social integration; the results provide recruitment considerations for dentists who participate in Christian missions to serve under-resourced people.

Research Questions

RQ1. Utilizing a quantitative research instrument based on the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions), what benefits or detractors do Christian dentists identify as contributory to their decision to participate or not to participate in dental, short-term missions that serve under-resourced people?

RQ2. Utilizing qualitative, in-depth interviews with Christian, highly experienced, short-term, mission dentists based on the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions), what do these Christian, dentist leaders identify and describe as the predominate benefits or detractors of dental, short-term missions and their recommendations for the recruitment of dentists to serve on these missions?

RQ3. Utilizing quantitative and qualitative data, how may Christian organizations apply the six areas of holistic, personhood development and integration (the spiritual, intellectual, physical, moral, emotional, and social dimensions) to recruit Christian dentists for dental, short-term missions that serve under-resourced people?

Research Conclusions, Implications, and Applications

The benefits, detractors, and recruitment considerations of dental STMs have been identified through the mixed-methods, phenomenological approach by utilizing the triangulated outcomes of the literature review (Chapter Two), quantitative results of the research instruments and the qualitative interviews. Tables 6-12 itemize the benefits, the detractors, and the recruitment recommendations that were discovered in each of the six, holistic dimensions.

Conclusions on Benefits and Detractors for Dental STMs

RQ1 results from the quantitative, research instrument of comments written in the "other suggestions" section and RQ2 results from the qualitative, in-depth, interviews are summarized in Tables 6-11, utilizing the six dimensions of holistic, development—the spiritual, intellectual, physical, moral, emotional and social categories. RQ3 results are shown in Table 12 and discussion occurs following Table 11 concerning the recruitment recommendations that were gleaned from this research study.

In Table 6, the spiritual benefits of dental STMs emphasized the "call" received by dentists from God, and through other religious organizations; dentists use their dental skills—that are sorely needed globally—to build bridges to the national people in developing countries in preparing the way for evangelistic outreach. It was important to the STM dentists that the local church and the Christian leaders in the destination country be given respect and credibility for caring for their congregations enough to bring the valuable commodity of dentistry to their community. Dentists were pleased with the spiritual growth in faith, trust, and prayer they received on STMs, the Christian example they were able to demonstrate at home and abroad because of their mission activities, and the emboldening courage they received to share their Christian life.

Only a few dentists mentioned spiritual disharmony within the team, spiritual warfare, or disturbing doctrinal differences in difficult places. Most dentists enjoy cross-cultural, worship experiences and interactions with Christians around the world.

Table 6: Spiritual Benefit and Detractor Conclusions for STMs
Spiritual Benefits of Dental, Short-Term Missions
Religious institutions encourage missionary outreach that assists people in need.
The God-given skill of dentistry is an exemplary way to help suffering humans.

Christians are called by God to compassionate and spiritual service to all people.
After dental interventions, evangelistic outreach aims to make disciples for Christ.
Caring, STM dentistry may give credibility to local ministries in other countries.
After STMs, dentists generally become bolder in witnessing for Christ at home.
Giving through dental STMs provides an example for other people to emulate.
Through STMs, dentists obtain growth in faith, trust, prayer, and selfless giving.
Taking into account the invested time and resources, dental STMs are worthwhile.
Due to dental needs, STMs fit well into countries that are inhospitable to Christianity.
STMs bring spiritual formation and holistic development for those people involved.
Spiritual Detractors of Dental, Short-Term Missions
Doctrinal differences and disharmony may occur with STM members or host churches.
STM actions of tying mandatory preaching or prayer to dental treatments may offend people.
There may be restrictions on sharing Christianity due to the political or religious climate.
Potential persecution and martyrdom occurs with Christian witness in certain countries.
Spiritual battles and supernatural, enemy warfare may develop with local religious practices.
Under-resourced Christians and overwhelming spiritual/physical needs may alarm teams.

In Table 7, intellectual benefits included the overriding choice of the adventure and wonderment of travel on STMs mentioned often in the interviews. Cross-cultural experiences rated high with dentists, since, although they have resources to travel as tourists, the Christian dentists voiced the appeal of traveling to meet and to assist believers in the global church.

Dentists who truly enjoy their profession are the best candidates for dental STMs, as the trips bring satisfaction through using their prized, dental skills. There is a segment of dentists who find dentistry a chore and do the minimum at their home offices due to their lack of enthusiasm for the dental field.

Many STM dentists are involved in the generativity of passing their knowledge and dental skills on to dental students or indigenous learners. Teaching and mentoring utilizing dental skills ranked high on the preferences for dentists on STMs.

Although handling the planning details and changeability of STMs, experienced dentists were able to show flexible attitudes. Dealing with dentists that exhibited pride or boastful attitudes did not bother dentists since most dentists interviewed were confident leaders.

Table 7: Intellectual Benefit and Detractor Conclusions for STMs
Intellectual Benefits of Dental, Short-Term Missions
STMs bring cross-cultural adventure, travel, and changed perspectives for visitors.
STMs advocate respect for diversity and a reduction in prejudice and stereotyping.
Dental STMs foster dental hygiene, prevention education, and dental treatment.
Dental STMs provide hands-on experiences for dentists, students, and local workers.
Students network concerning career options, dental knowledge, and skill development.
Intellectual Detractors of Dental, Short-Term Missions
Dental STMs may demand many planning details with the need for change and flexibility.
Self-serving team members arrive with arrogance, pride, ego, or autocratic behaviors.
Dental/national students may be present without adequate mentor supervision available.

In Table 8, there were positive, physical benefits to dental STMs concerning the increased health, longevity, and productivity that was profitable, especially to older dentists. The possibility of safe, portable, dental clinics, with decent transportation options, has been a boon to STMs in this contemporary age. Therapeutic touch on STMs was a pleasing asset in a sometimes guarded, unfriendly, insensitive world. Most dentists spoke of appreciating the blessings of their home life after experiencing the physical challenges of developing countries.

The physical challenges of dental STMs were a consideration discussed in some form by the majority of dentists, although most were able to cope with the lack of creature comforts for a short time on missions. The main concerns involved protecting the dentists' backs due to the uncomfortable working conditions and sleeping accommodations. Cold showers and poor food were not helpful, but dentists were tolerant of hardships. The costs of leaving their office (lost

income, continuing overhead bills, unhappy staff) were more disconcerting than the expense for the STM itself. The preponderance of patients was a major concern for most dentists who felt concern about meeting the patients' needs.

Table 8: Physical Benefit and Detractor Conclusions for STMs
Physical Benefits of Dental, Short-Term Missions
STMs increase the health, emotional well-being, and life quality of volunteers.
Volunteerism increases self-rated, health scores and positive health behaviors.
STMs lower functional limitations, depression, isolation, and loneliness.
Dental STMs allow for productivity even after professional dental retirement.
Safe, portable, dental clinics can be set up anywhere for quality dental treatment.
Therapeutic touch provides great dividends for STM dentists, patients, and helpers.
STMs foster more appreciation for the culture and comforts of home environments.
Physical Detractors of Dental, Short-Term Missions
STMs bring constraints, challenges, risks, and discomforts to dentists, and team members.
Creature discomforts include issues of food, accommodations, illnesses, weather, etc.
STM issues include political instabilities, customs requirements, and dental equipment issues.
Expenses for dentists include STM costs, income loss, and home/office debt and overhead.
Overwhelming dental needs and excessive patients bring overwork and fatigue.

In Table 9, STMs provide dentists with rewarding, significant purpose, and the altruistic values that may have initiated their dental careers were often fulfilled with dental STMs that help disadvantaged people. Most dentists felt a Christian, moral duty to help under-resourced people in countries struggling with social justice. Dental professionals desire to give back to other people due to the many blessings they have in life. Many dentists want to diminish material influences in their lives.

The impoverishment and scarcities of the developing world cause anguish or guilt for sensitive individuals, but dentists are stimulated by the interesting challenge of providing quality,

dental care in austere conditions although they are concerned about sterilization and appropriate dental care standards. Working with different team members and unfamiliar cross-cultural situations is challenging. Several mentioned moral failings that they were aware of with STMs.

Table 9: Moral Benefit and Detractor Conclusions for STMs
Moral Benefits of Dental, Short-Term Missions
STM dentists find rewarding significance in utilizing dental skills purposefully.
STM dentists fulfill a moral duty to serve people who have little dental access or resources.
Dentists role-model the responsibility of giving back following blessings received.
STMs reconnect dentists with the altruistic values that may have initiated their careers.
Dentists help others without constraints of finances, insurance forms, or paperwork.
STMs make a global impact against injustices in healthcare in developing countries.
STMs provide awareness of over-consumption, greed, corruption, and self-indulgence.
Moral Detractors of Dental, Short-Term Missions
Neglect of the national peoples' input on treatment/outreach may affect dental STMs.
The possibility of moral failings may happen with the teams involved with dental STMs.
There may be difficulties processing the actualities of scarcities and impoverishment.
Unattainable wealth and unsavory behaviors displayed by the STM team may bring harm.
Compromised dental care, sterilization and a lack of follow-up may be damaging.

In Table 10, emotional benefits led in importance in the six dimensions since STMs bring fulfillment, satisfaction, self-esteem, and self-actualization to dentists who may come from a culture where patients are demanding, entitled, and less grateful. STMs enliven life through the emotional affirmation of patients in the developing world. STMs often recharge and renew dentists emotionally, especially in the case of professional burn-out or excessive home stress. Reciprocal gift-giving and working for hugs and kisses were a unique and appreciated bonus.

STMs may bring some tensions, home-sickness, or cultural adjustments. Concern or guilt due to overwhelming poverty can affect a STM dentist adversely. Re-entry into the dentists' home culture may bring emotional, physical, and spiritual challenges.

Table 10: Emotional Benefit and Detractor Conclusions for STMs
Emotional Benefits of Dental, Short-Term Missions
Dental STMs bring happiness, satisfaction, and rewards for serving other people.
Dental STMs produce renewal, recharging, humor, and refreshment for most dentists.
Dentists learn to adaptively provide compassionate dental care in austere conditions.
Dentists often gain self-esteem, self-fulfillment, and self-actualization through STMs.
STMs often reduce discouragement, stress, burnout, fatigue and psychological distress.
STMs may replace boredom, dispiritedness, loneliness, depression, and social isolation.
Gratitude, special gifts, and positive emotional exchange are often reciprocally given.
Emotional Detractors of Dental, Short-Term Missions
Guilt for a blessed life may come after witnessing overwhelming poverty and need.
Some dentists may have a "savior complex" or a false sense of superiority.
Issues of rejection, betrayal, territorialism, competition, and/or home-sickness may occur.
Reverse culture shock and re-entry may bring emotional, physical, and spiritual challenges.
People question volunteerism in another country when the home country needs dentistry.
People at home are frequently not interested in hearing about dental, STM experiences.

In Table 11, the social benefits of dental STMs are captured through relationships with team members, students, family, and friends that accompany the dentist and the field interactions with national people and long-term missionaries. Teamwork seemed fun to those who often work more independently at their home office. Many relationships are impacted by the dentists' example of service to other people and the rewarding friendships that emerge on STMs.

The cross-cultural, social challenges include language and custom barriers or team conflicts, which many dentists thought were a rare occurrence. STMs usually occur during the

honeymoon phase of relationships so difficulties often do not cause sensitivities. Longer or frequently-returning STMs with the same people may cause more relational tensions. Home relationships may be affected if the dentists are not supported by the significant people involved.

Table 11: Social Benefit and Detractor Conclusions for STMs
Social Benefits of Dental, Short-Term Mission
Dental STMs inspire and encourage replication through the dentists' role-modeling.
Teamwork and common goals bring connection and growth in social development.
Dental STMs strengthen family member and friend bonding in relationship building.
STMs provide a Christian network of like-minded dentists who can work together.
Interaction with national people and missionaries bring significant social connections.
STMs may inspire dentists to become long-term missionaries through social contact.
Social Detractors of Dental, Short-Term Missions
STMs may bring interpersonal issues, personality conflicts, tensions, or annoyances.
STMs may burden national people and missionaries if the team ignores local practices.
Culture and language barriers interfere with appropriate communication and behavior.
Leaving family responsibilities for STMs may upset family members' reliance on the dentist.
Missing home office duties for STMs causes difficulties with home office obligations.

Recommendations for the Recruitment of Dentists for Dental STMs

Although the recruitment recommendations in Table 12 are grouped into the holistic categories, this discussion will seek to place the most important recruitment considerations first, followed by other thoughts mentioned more infrequently in the interviews with STM-experienced dentists.

Foremost, Christian dentists prioritized their personal calling from God and the desire to follow the Great Commission in evangelizing the world for Christ. Many dentists identified the inherent blessings that obedience to God brings wherever they were called. The dentists were convinced that God had given them the dental gifts and talents to use and think that everyone is

called to share their expertise and that the Great Commission is for all believers. This offering of God's love through dental STMs brought joy and inspiration through charitable dentistry and outreach opportunities. Most dentists spoke of the spiritual enhancement that STMs bring through gains in faith and trust in God, prayer life improvement, and increased generosity.

The emotional element of STM recruitment recommendations was highly engaging and suggestions included the sharing of heart-warming memories and stories and the relating of the emotional rewards and blessings experienced on STMs. A reminder of the self-actualization, self-esteem, and self-fulfillment features that usually accompany the giving of oneself to other people through Christ's example is also a helpful strategy in recruitment. Emphasizing the satisfaction of "working for hugs and kisses" and the absence of insurance claims and minimal paperwork helps boost the appeal of STMs.

Many dentists raved about the adventure, travel, and refreshing experiences away from their home and office duties. Cross-cultural education and the broadening, perspective-giving attributes of STMs beckoned. Connecting with local churches around the world brings solidarity and fellowship while observing how God is moving and working in the world at large.

Most dentists requested that people close to them join the STM (especially spouses, family members, and close friends) so that the relationships could foster bonding, grow trust, and continue connections that are often restricted at home due to time constraints, home commitments, and dental office responsibilities. It was suggested that dentists invite those people that they desire to know better on STMs, as strong ties are often formed on close-knit teams.

The mentoring of dental students, indigenous people, and other STM-inexperienced colleagues were valued as a motivation for participation in dental STMs. The gratification of helping other people with dental skills not available in the developing world was also an

important highlight of STMs. Informing other dentists of the global dental and spiritual need is advantageous, along with discussions about the reasons the dentists chose their profession initially. Advocating for moral and social justice often brings rewards to some dentists. It is important to find out the individual goals a dentist may have concerning STMs and help them find a trip to realize those objectives. Many dentists have the opportunity to use dental lectures and study clubs to present a few pictures and thoughts about their STM involvement that may start other dentists thinking about the possibilities.

STM-experienced dentists may educate colleagues on how to transport and provide portable dentistry safely and comfortably in field and austere conditions. It is helpful to address the hazards of STMs honestly, with a focus on finding ways to minimize the risks of STMs by previewing the details of the locality and supporting hosts. STM-experienced dentists can advise other dentists with hints on how to leave their home offices with minimal losses. Starting with STMs closer to home and in more desirable destinations seemed best before accepting challenging assignments.

Social media and local community advertising may recruit team members and dentists that know and are loyal to the dental team leaders and participants. STM Christian, dental organizations can be a boon to dentists who will potentially meet like-minded friends through interactions and connections with STM trip opportunities. Christian STM organizations were touted as educating, equipping, training, and encouraging dental STMs. Religious affiliations of the dentist are places to promote missionary support through dentistry since most church denominations have missionaries that will sponsor a dental team. It is also beneficial to have a plan to suggest how dentists can contribute and support dental STMs without going.

Table 12: Recommendations for Recruitment of Dentists for Dental STMs
Spiritual Suggestions
Question dentists about whether they perceive a firm calling from God for dental STMs.
Talk to committed Christian dentists about their desire to help people through dentistry.
Assess if the dentist is willing to depend on God while showing faith in action on STMs.
Propose Christian outreach opportunities that define the goals of Christian, dental STMs.
Share spiritual and personal blessings and rewards dentists often gain on dental STMs.
Utilize Christian organizations that educate, equip, and encourage (CDS, CMDA, WDR, etc.)
Recommend STMs that are denominationally in line with the dentists' theological beliefs.
Suggest other ways that dentists can contribute to and support dental STMs without going.
Intellectual Suggestions
Educate on how to transport and provide portable dentistry safely and comfortably.
Educate dentists concerning the overwhelming global dental need.
Use lectures, presentations, and study clubs to provide information and pictures of STMs.
Advocate for the perspective-giving and the broadening richness of the STM experience.
Emphasize adventurous travel and fresh cultural experiences obtained by dental STMs.
Mentoring opportunities for new dentists, dental students, and indigenous workers.
Recruit dental students to teach them skills and reciprocal giving in their dental careers.
Physical Suggestions
Honestly address the hazards and the risks of dental STMs and how to minimize them.
Reassure concerning what is known about the field, the supportive hosts, and the church.
Recommend a closer location and an experienced STM leader for a first dental STM.
Reduce surprises by previewing housing, food sources, leaders, and other details.
Talk about the fun of reciprocal gifts on STMs and working for hugs and kisses.
Moral Suggestions
Discuss motivations, including why STMs are often chosen due to a desire to help.
Advocate for STM accomplishments that bring a passionate and significant purpose to life.
Find out what the dentist wants out of a STM experience and target STM to those goals.
Investigate the dentist's views concerning respect for others and the needs for social justice.
Emotional Suggestions
Capitalize on the emotional rewards of spreading joy, happiness, and God's love for people.

Remind dentists of the self-esteem, self-actualization, and fulfillment rewards of STMs.
Present exciting facts concerning the culture, activities, and sight-seeing that will occur.
Tell heart-warming, success stories of impact on dentists, patients, and local churches
Social Suggestions
Recruit dental colleagues, church friends, and team members through face-to-face invitations.
Ask dentists who know and trust you to come along so that you can spend time together.
Educate dentists concerning the details of a STM and how to leave their home and office.
Ask dentists to join organizations that help dental STMs (CDS, CMDA, WDR, etc.).
Impact many people by inclusively inviting colleagues, families, friends, and students.
Advertise through websites, social media, incentives, and church, school, & local media.

Research Limitations

Dentists who were not interested in STMs may have declined participation in this study because the recruitment statement and the consent form presented the STM topic of the study. Therefore, the results of the research instruments may be slightly skewed since 97% of the respondents were STM-experienced dentists. The general population of Christian dentists might have provided somewhat different perspectives than the STM-experienced dentists submitted. Individual results were based on the dental sample who responded to the research instrument and do not necessarily define the population to which the dentists belong.

With qualitative research, limitations occur with the variabilities of the descriptive, lived experiences following the self-reported narratives of the dentists' STM encounters and perceptions. Leedy and Ormrod (2019) warned: "Remember that participants won't necessarily give you the Ultimate Truth; rather, they may tell you what they (a) *believe* to be true, (b) *wish* to be true, or (c) think you want to hear" (p. 356). Some of these concerns were lessened as many comments were added anonymously to the 395 research instruments received, where the dentists were honest with opinions and feedback.

The researcher's interpretation, coding of quotes, and compilation endeavors might also introduce bias due to the Leedy & Ormrod (2019) description of the researcher's supposed "predispositions, expectations, biases, and values, reflecting the notion of *researcher-as-instrument*" (p. 356). Limitations can occur with the researcher's decisions on what data is significant for inclusion, as Leedy & Ormrod (2019) presume that "true objectivity probably isn't possible in qualitative research (if it's ever possible in *any* research project)" (p. 356).

Further Research Possibilities Related to the Findings

This research study has encompassed an overview of holistic, personhood aspects of dental STM benefits and detractors where each area of the study could be explored in greater depth and could open innumerable research opportunities.

The holistic model could definitely be applied to other medical fields, utilizing physicians, nurses, and other healthcare professionals as participants. Although this research focuses substantially on the individual characteristics of the volunteer, studies could apply to organizational contexts. Any volunteer organization could benefit from similar studies to observe how their clientele would respond to holistic, developmental principles. Cross-cultural aspects might provide interesting variables for STM experiences and research.

Tangents concerning STMs could also reflect "best practices" of portable, dental STMs and study how dental STMs impact the healthcare of specific countries, particularly areas that have been receiving dental STMs for a number of years. Do dental STMs refer patients back into the local system for follow-care and how do dental STMs affect local dental facilities, if present? What impact have dental STMs had on the dental students or the indigenous people, both at home and within destination countries?

Potential Modifications to the Design of the Study to Enhance Future Replication

The quantitative research instrument worked correctly as a paper copy, but when it was dispersed by e-mail, the formatting did not allow for the multiple alternatives shown in Table 3 concerning the options for dental volunteerism (local/global/both), the preferred duties on STMs (lead/organize/administrate/just doing the dentistry), or the season of dental volunteering (past/now/future/never). With further technical support, this could be remedied in a second iteration of the research instrument. Some dentists added comments to the e-mailed research instruments that clarified multiple preferences not allowed by the instrument.

This researcher is convinced that the statements on the research instrument reflected the holistic, six-dimensional, theoretical basis of the study adequately. When the five choices are given from "strongly agree" to "strongly disagree," any concept could be gradated according to the dental participant's interpretation. Many observations and applications were possible due to the completeness of the 36-statement format that provided input for three benefit and three detractor statements in each of the six holistic areas. These statements were created using the triangulation of the many resources discovered during the literature search, this researcher's STM experience, and other STM-experienced dental personnel who gave input for this study.

The qualitative interviews clarified more distinctly the concepts that may have appeared vague in the quantitative research instrument. The qualitative interviews supported well the 395 research instrument statements since the 60, STM-experienced dentists addressed many concepts in the holistic categories that were also tested by the quantitative research instrument. This researcher coded the significant points of the qualitative interviews that had already been examined by the quantitative instruments and believes a sufficiently, complete picture of dental

STMs was statistically represented through the instruments with especially well-articulated results from the interviews.

Conclusion

This research study has demonstrated the significant value of using a holistic approach to engage Christian dentists in global, dental STMs that can make an incalculable difference to people suffering from spiritual and physical needs. As highlighted by the quantitative and qualitative results of this study, each of the six dimensions—spiritual, intellectual, physical, moral, emotional, and social aspects—are pivotal in the holistic development of dentists on STMs.

The STM-experienced dentists revealed a relatively equal distribution in all benefit dimensions, exhibiting substantial and meaningful motives for dental, STM participation. The dentists' detractor responses were more divergent and variable, with less consistency. Dentists leaned towards disagreeing with the detractors, generally indicating that their participation in dental STMs would not be adversely affected by detractors.

The interest in dental STMs and the achievement that was reflected by this holistic, research study establishes important quantitative and qualitative data which has not been previously tested in the field of dental STMs. This researcher anticipates that the enthusiastic momentum for dental STMs in academic literature will continue since, as her research has substantively suggested, dental STMs are invaluable for bringing holistic benefits to dentists who serve under-resourced people and bring God's love to all nations.

A Brazilian-American, missionary dentist, with experience in over 300 dental STMs, was interviewed for this study and proclaimed:

> My dental office is my pulpit. There, I not only talk about God's love, but I also show it. While I take care of my poor patients, I teach them that God loves them and is aware

> of their whole person. He cares about their body and their soul . . . These healing missions [STMs] are divine action through human cooperation to accomplish God's eternal purpose . . . mending them into the whole.

Christian dentists holistically imitate Jesus who "grew and became strong in spirit (spiritual) . . . in wisdom (intellectual) and stature (physical), in favor with God (moral), and in favor with men (emotional, social)" [Luke 1:80, 2:52]. The dentists participating in dental STMs have honestly shared their thoughts concerning the benefits and the detractors of STMs and their desire to recruit colleagues to experience the blessing of dental STMs. Most Christian dentists proclaim STMs a "great spiritual, clinical, and cultural adventure, where God strengthens participants to serve him through giving to other people. It does lead to holistic integration and developmental growth."

The Bible (NIV) also endorses and affirms personal completeness: "So that we may present everyone fully mature in Christ (Col. 1:28b) and "May your whole spirit, soul and body be kept blameless at the coming of our Lord Jesus Christ (I Thess. 5:23). Dentists can share this holism on dental STMs as God instructs all Christians to

> . . . let your light shine before men, that they may see your good deeds and praise your Father in heaven (Matt. 5:16) . . . Truly I tell you, whatever you did for one of the least of these brothers and sisters of mine, you did for me' (Matt. 25:40) . . . there before me was a great multitude that no one could count, from every nation, tribe, people, and language, standing before the throne and before the Lamb . . . Rev. 7:9

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APPENDIX A: QUANTITATIVE RESEARCH INSTRUMENT

(With Numbered Questions that Apply to Holistic Dimensions)

Please check the box that is most accurate for you concerning short-term, dental missions:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
9. I like dental teaching and mentoring.	□	□	□	□	□
10. Adjusting to change is difficult for me.	□	□	□	□	□
14. Dental trip benefits outweigh the discomforts.	□	□	□	□	□
5. Sharing religious views feels too risky in other cultures.	□	□	□	□	□
16. The risks and hardships impact my involvement.	□	□	□	□	□
23. My priorities do not include helping in other countries.	□	□	□	□	□
8. I relish learning through new experiences.	□	□	□	□	□
20. I like to help disadvantaged people everywhere.	□	□	□	□	□
35. Sending money for missions is better than sending teams.	□	□	□	□	□
33. I embrace socializing and relationship building.	□	□	□	□	□
24. Doing quality portable dentistry seems overwhelming.	□	□	□	□	□
2. Sharing my faith is important to me.	□	□	□	□	□
36. My family and friends don't encourage my mission trips.	□	□	□	□	□
13. Dental volunteerism helps to revitalize me.	□	□	□	□	□
7. I like adventure and travel.	□	□	□	□	□
11. I'm bothered if people boast about their volunteerism.	□	□	□	□	□
3. I desire to receive spiritual growth on missions.	□	□	□	□	□
29. I often feel guilt over being more blessed than others.	□	□	□	□	□
32. Working on a team is rewarding for me.	□	□	□	□	□
28. Going on a mission would be out of my comfort zone.	□	□	□	□	□
4. Discussing differing beliefs upsets me.	□	□	□	□	□
12. I have little tolerance for inexperienced dental providers.	□	□	□	□	□
31. Influencing others is a goal of my mission activities.	□	□	□	□	□
26. Dental mission trips personally fulfill me.	□	□	□	□	□
6. Confronting sin and evil disturbs me.	□	□	□	□	□
15. Physical contact warms my heart on missions.	□	□	□	□	□
17. Mission expenses are too high for me.	□	□	□	□	□
18. Excessive, unmet dental needs overwhelm me.	□	□	□	□	□
27. Gaining new perspectives on my life is helpful.	□	□	□	□	□
22. Differing team member behaviors/standards conflict me.	□	□	□	□	□
25. I find it emotionally uplifting to help people.	□	□	□	□	□
34. Group dynamics are a major stressor on missions.	□	□	□	□	□
19. Doing right, despite sacrifices, compensates me.	□	□	□	□	□
21. Differing familial and social values intrigue me.	□	□	□	□	□
1. I feel a calling to dental, short-term missions.	□	□	□	□	□
30. Adjusting to change is difficult for me.	□	□	□	□	□

Please circle all that apply for you.

I prefer dental volunteerism: locally globally both neither

I would go on a dental mission to: lead organize administrate prefer just doing the dentistry

The season for my dental volunteering is: past now future never

Other Thoughts? Thank You! _____
_____
_____
_____
_____
_____
_____
_____
_____

Male □ Female □ Age: 20-39 □ 40-59 □ 60 & up □ State: _____

Dental Missions Done: 0 □ 1-5 □ More: _____ Religious Affiliation: _____

Please include contact information if you are willing to help with a half-hour interview about short-term, dental missions:

Name: _____Phone: _____E-mail: _____

APPENDIX B: QUALITATIVE INTERVIEW

Interviewee reference #: _____ Male □ Female □ Age: _____ State: _____

Dental Missions Done: _____ Religious Affiliation: _____

Thank you for serving God through dental, short-term missions and for helping with this research! This interview will be recorded and will be heard only by Diane Meyer and, possibly, by her faculty supervisor. You have already taken the research instrument and have noted the consent information. Your confidentiality will be secured in all aspects of this process.

As an experienced, dental, mission traveler, please explain the benefits and the detractors of short-term, dental mission trips in the following areas of holistic development: spiritual, intellectual, physical, moral, emotional and social dimensions. What recommendations do you suggest to feature the benefits and address the detractors in the recruitment of dentists for missions?

1. Spiritual benefits and detractors. Recommendations for recruitment?

2. Intellectual benefits and detractors. Recommendations for recruitment?

3. Physical benefits and detractors. Recommendations for recruitment?

4. Moral benefits and detractors. Recommendations for recruitment?

5. Emotional benefits and detractors. Recommendations for recruitment?

6. Social benefits and detractors. Recommendations for recruitment?

APPENDIX C: RECRUITMENT LETTER

December 28, 2019

To: Christian Dentists

Subject: Please Help Through a Short "Christian, Dental, Volunteerism Research instrument"

Dear Christian Dentist:

As a graduate student at the Rawlings School of Divinity at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The purpose of my research is to discover the holistic benefits, the detractors, and the recommendations for the recruitment of dentists for Christian, dental, short-term missions that help under-resourced people. I would appreciate your perspectives even if you have never participated on a dental, short-term mission.

If you are a Christian dentist and are willing to participate, please click on the "dentalmissionsurvey" link provided below. The research instrument that follows should take less than 10 minutes to complete by clicking on the boxes or filling in information on your computer or cell phone. Once completed, click on the "submit" icon at the bottom of the document and the research instrument will go directly to my password-protected e-mail and no one else will have access to it.

Consent information is provided as the first page you will see after clicking on the research instrument link. The consent page contains additional information about my research, but you will not need to sign the consent page.

If you have participated in three or more dental, short-term missions, you may be asked to participate in a half-hour, in-depth interview on dental missions that I will schedule for your convenience. If you would like to be interviewed, please provide your name and contact information at the bottom of the research instrument. Your participation in the interview would greatly expand this research study and your contact information will remain completely confidential with me.

To take the research instrument, click on this link: https://www.christiandental.org/dental missionsurvey/

Sincerely,

Mrs. Diane Meyer
Doctoral Candidate
Rawlings School of Divinity, Liberty University

APPENDIX D: CONSENT FORM

CONSENT FORM FOR A RESEARCH STUDY ENTITLED:

Recruitment Considerations for Christian, Dental, Short-Term Missions
Relating to the Holistic Development of Dentists

Diane K. Meyer
Liberty University
Rawlings School of Divinity

You are invited to be in a research study concerning the benefits and the detractors of dental, short-term, mission trips and recommendations on how to better recruit dentists for missions to reach the under-served and to show God's love through dentistry. You were selected as a possible participant because you are a Christian dentist who may have an interest or experience concerning short-term, dental mission trips. Please read this form and ask any questions you may have before agreeing to be in the study.

Diane K. Meyer is conducting this study. She is a doctoral candidate in the Rawlings School of Divinity at Liberty University, an Advisory Council Member of the Christian Dental Society, a member of the Christian Medical and Dental Associations, and has 20 years of mission experience on 60 dental, short-term missions to 35 countries.

Background Information: The purpose of this research will be to analyze your experience and insights to identify and to understand the benefits and the detractors of dental, short-term missions relating to Christian dentists' holistic development involving the six dimensions of spiritual, intellectual, physical, moral, emotional, and social growth. The results will provide recruitment considerations for dentists to participate in Christian missions to serve under-resourced people in Christ's name.

Procedures: I would greatly appreciate it if you would agree to participate in this study. I would ask you to do the following:
1. Take a research instrument, which will involve approximately ten minutes of your time.
2. If you have been on three or more dental, short-term missions, you are eligible to participate in a half-hour, in-depth interview. The interview concerns the benefits and the detractors of short-term missions and your recommendations about recruitment for dental missions. You will be asked to provide your contact information at the end of the research instrument if you would consider participating in an interview.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study. Potential benefits to society include improvements in how dentists are recruited for short-term, dental missions to help under-resourced people and to share God's love with others.

Compensation: Participants will not be compensated for taking part in this study.

Confidentiality: The records of this study will be kept private. In any sort of report, I might publish, I will not include any information that will make it possible to identify you, the participant. Research records will be stored securely, and only the researcher and her faculty supervisor will have access to the records. I may share the data I collect from you for use in future research studies or with other researchers; if I share the data that I collect, I will remove any information that could identify you before I share the data.

Voluntary Nature of the Study: Participation in this study is voluntary. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the research instrument and/or during the interview.

How to Withdraw from the Study: If you choose to withdraw from the study prior to submitting your research instrument, please exit the research instrument and close your internet browser. If you have agreed to be interviewed and choose to withdraw, you may tell the interviewer that you do not wish to continue and the recording, if begun or completed, will be erased and your research instrument and any other paperwork will be shredded.

Contacts and Questions: The researcher conducting this study is Diane Meyer. If you have questions, you are encouraged to contact Diane at bdmeyer@comcast.net. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher and the faculty chair, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have had my questions answered. I consent to participate in the study.

APPENDIX E: INTRODUCTORY SCRIPT FOR DENTAL CONFERENCE EXHIBIT HALL BOOTHS

Researcher: The researcher will greet the dentist who stops at the Christian Dental Society Booth and will ask: "Are you interested in Christian short-term dental missions?"

Dentist: Yes, I am interested or have done dental missions before.

Researcher: "I would love to hear about your mission(s) and your willingness to give back to others in that way. How can we help you with dental missions?"

Dentist: He/She responds with more information.

Researcher: "So it sounds like your religious orientation is Christian?"

Dentist: If the answer is no, the researcher will not ask for their contact information for the research study. If the dentist has a Christian orientation, the researcher will ask for contact information for the study.

Researcher: "If you would agree, I would like to get your e-mail and/or phone number so I can contact you with a research instrument that I am using for my doctoral dissertation on dental, short-term missions. It involves your opinions concerning the benefits and the detractors of dental, short-term missions and your recommendations for recruitment of more dentists because of the great dental need globally. Dentistry is a great "door opener" for the Christian message and we now have the ability to do portable clinics safely and comfortably anywhere in the world. It will probably take less than 10 minutes to complete the research instrument when you receive it.

Dentist: OK. Here is my contact information.

Researcher: Thank you so much! If you feel like helping me with a half-hour interview that is more in-depth, please add you contact information to the bottom of the research instrument. The research instrument does not require your contact information.

Dentist: OK.

APPENDIX F: INSTITUTIONAL REVIEW BOARD CONSENT FORM APPROVAL

The Liberty University Institutional
Review Board has approved
this document for use from
12/20/2019 to –
Protocol # 4020.122019

CONSENT FORM

Recruitment Considerations for Christian, Dental, Short-Term Missions
Relating to the Holistic Development of Dentists

Diane K. Meyer
Liberty University
Rawlings School of Divinity

You are invited to be in a research study concerning the benefits and the detractors of dental, short-germ, mission trips and recommendations on how to better recruit dentists for missions to reach the under-served and to show God's love through dentistry. You were selected as a possible participant because you are a Christian dentist who may have an interest or experience concerning short-germ, dental mission trips. Please read this form and ask any questions you may
have before agreeing to be in the study.

Diane K. Meyer is conducting this study. She is a doctoral candidate in the Rawlings School of Divinity at Liberty University, an Advisory Council Member of the Christian Dental Society, a member of the Christian Medical and Dental Associations, and has 20 years of mission experience on 60 dental, short-term missions to 35 countries.

Background Information: The purpose of this research will be to analyze your experience and insights to identify and to understand the benefits and the detractors of dental, short-term missions relating to Christian dentists' holistic development involving the six dimensions of spiritual,
intellectual, physical, moral, emotional, and social growth. The results will provide recruitment considerations for dentists to participate in Christian missions to serve under-resourced people in Christ's name.

Procedures: I would greatly appreciate it if you would agree to participate in this study. I would ask you to do the following:

1. Take a research instrument, which will involve approximately ten minutes of your time.
2. If you have been on three or more dental, short-term missions, you are eligible to participate in a half-hour, in-depth interview. The interview will be audio-recorded and concerns the benefits and the detractors of short-term missions and your recommendations about recruitment for dental missions. You will be asked to provide your contact information at the end of the research instrument if you would consider participating in an interview.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study. Potential benefits to society include improvements in how dentists are recruited for short-term, dental missions to help under-resourced people and to share God's love with others.

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Compensation: Participants will not be compensated for taking part in this study.

Confidentiality: The records of this study will be kept private. In any sort of report, I might publish, I will not include any information that will make it possible to identify you, the participant. Research records will be stored securely, and only the researcher and her faculty chair will have access to the records. I may share the data I collect from you for use in future research studies or with other researchers; if I share the data that I collect, I will remove any information that could identify you before I share the data.

- Research instruments will be conducted anonymously, unless a participant chooses to enter their name and contact information to participate in an interview. Submitted research instruments will be printed out, electronic copies will be deleted from the computer, volunteers' name and contact information will be cut off and stored separately from the research instrument responses, and all printed out research instruments will be coded for organization purposes and placed in a common stack without identifying information.
- Interview participants will be assigned a pseudonym to conceal their identity. Interviews will be conducted in a location where others cannot easily overhear the conversation.
- Data will be stored in a locked filing cabinet or a locked safe and may be used in future presentations. After three years, all paper records will be shredded.
- Interviews will be recorded and transcribed. Recordings will be stored on a recording device within a locked safe for three years and then erased. Only the researcher will have access to these recordings.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or the Christian Dental Society. If you decide to participate, you are free to not answer any question or withdraw at any time, prior to submitting the research instrument and/or during the interview, without affecting these relationships.

How to Withdraw from the Study: If you choose to withdraw from the study prior to submitting your research instrument, please exit the research instrument and close your internet browser. Your responses will not be recorded or included in the study.

If you agree to be interviewed and choose to withdraw, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you, apart from your research instrument data, will be destroyed immediately and will not be included in this study. Research instrument data will not be destroyed because it will be anonymized, and the researcher will be unable to link a participant to their research instrument responses.

Contacts and Questions: The researcher conducting this study is Diane Meyer. If you have questions, you are encouraged to contact Diane at bdmeyer@comcast.net.

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If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher and the faculty chair, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have had my questions answered. I consent to participate in the study.

APPENDIX G: INSTITUTIONAL REVIEW BOARD APPROVAL

December 20, 2019
Diane K. Meyer
IRB Exemption 4020.122019: Recruitment Considerations for Christian, Dental, Short-Term Missions Relating to the Holistic Development of Dentists
Dear Diane K. Meyer,
The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.
Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):
(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), research instrument procedures, interview procedures, or observation of public behavior (including visual
or auditory recording) if at least one of the following criteria is met:
(iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).
Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.
If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.
Sincerely,

Administrative Chair of Institutional Research
Research Ethics Office
Liberty University | Training Champions for Christ since 1971

APPENDIX H: PERMISSION TO USE THE "HAND OF WHOLENESS"

April 14, 2020

To Whom it May Concern,

We hereby give our permission, as co-authors and copyright holders of *Ecologies of Faith in a Digital Age* (IVP Academic, 2018), for Diane Meyer to use our hand of wholeness illustration which we commissioned by artist Jan Bridwell Walker in 2013.

Sincerely,

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Stephen D. Lowe

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Mary E. Lowe