Spring 3-18-2020

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Exploring the Experiences of Community Health Workers in the Dominican Republic Using Photovoice

Johnathan D. Steppe, MSN, RN, CNE

A Dissertation Submitted in Partial Fulfillment of Requirements for the Degree of Doctor of Nursing Science

Wellstar School of Nursing

College of Health and Human Services

Kennesaw State University

March 2020
Acknowledgments

An important lesson I learned while completing this dissertation is how limited words are, and how the boundaries of language often obscure our true intentions. Nevertheless, in this short space I will attempt to offer boundless gratitude to those who have supported me through this journey. I must first acknowledge Alan, my life partner, who always pushed me to succeed during times when I was ready to concede. Thank you for believing in me and for not ever allowing me to take the easy way out. Second, I want to say thank you to my mother, who is a constant source of support, understanding, and non-judgmental encouragement. You taught me to appreciate the joys of learning while instilling in me a love of reading and writing. You were extraordinarily patient with my frequent absences in your life during this process. I am looking forward to spending much more time together in the future.

I am also extraordinarily grateful to my mentor and friend, Dr. Barbara Blake, who has been with me from the beginning of my nursing journey. You are an inspiration in everything you do, and I truly appreciate all the dedication you have shown me. You have opened up so many doors in my life and you always set the bar higher than I would have set it myself. You have been my greatest champion and my most astute critic, both of which were necessary to reach this moment. I am a better person and have a richer life for knowing you.

To Dr. Judith Hold, Dr. Nicole Mareno, and Dr. Iván Jorrín Abellán: each of you shaped this dissertation through your own areas of expertise. You were generous with your time and your support. You challenged my thoughts and beliefs and, in doing so, transformed me as a scholar and a person. I was exceptionally fortunate to have each of you on my committee, and I want you to know how truly grateful I am for all the kindness and attention you have given me.
I would also like to thank Jon Thompson, whose work with Comunidad Connect has been both inspiring and humbling. Without you, this dissertation would not have happened. You opened my eyes to worlds other than my own, and you have truly shown me that compassion and humanity knows no borders.

Finally, but most importantly, thank you to the staff of Health Horizons International and to the health promoters of Montellano. Thank you for your dedication to this project and for the warmth you have always shown me during my time in the Dominican Republic. Your commitment to community health is a shining exemplar for health care workers everywhere. In many ways, this dissertation is a celebration of you and your work.
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Abstract

In order to mitigate the growing health worker shortage, many low-middle income countries (LMICs) use community health workers (CHWs) to extend health services to underserved communities. Community health workers are laypersons with minimal training who provide basic health services for they communities in which they live. Although past research has demonstrated that CHWs can provide appropriate care that contributes to positive health outcomes, many CHW programs fail to achieve long-term sustainability. As the largest group of health professionals, nurses often work closely with CHWs, and are therefore well-positioned to support sustainability of CHW programs.

The purpose of this participatory action research (PAR) study was to explore the experiences and perspectives of CHWs living and working in a northern region of the Dominican Republic (D.R.). Using the PAR method known as photovoice, 13 CHWs were recruited to take photographs that represented their perceptions of the CHW role and the factors that supported and impeded their work. After generating photographs, participants took part in individual interviews and a focus group, during which the photographs were used to enhance understanding of participants’ experiences as CHWs.

Findings from the study demonstrated that participants viewed themselves as leaders and change agents for their communities, and that they perceived their work as having positive consequences for their communities and themselves. Furthermore, important intrinsic and external support systems were described, and several significant barriers were identified. Findings can be used to develop strategies to build upon existing strengths and design interventions to mitigate challenges encountered by CHWs.
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Exploring the Experiences of Community Health Workers in the Dominican Republic Using Photovoice

**Chapter 1: Introduction and Background**

Significant health inequities exist on a global scale, manifesting both between and within countries (World Health Organization [WHO], 2008). Differences in socioeconomic status almost invariably fuel these inequities, with the poorest countries usually suffering the poorest health outcomes (WHO, 2008; WHO, 2018a). Core health indicators—including maternal-infant mortality ratios, under-five mortality rates, life expectancies, and mortality rates from preventable infectious diseases—are consistently worse for low- and middle-income countries (LMICs) when compared to more affluent nations (WHO 2011; WHO, 2015; WHO, 2016b; WHO, 2016c; WHO, 2018a; WHO, 2018d; WHO, 2018e).

Compellingly, countries could achieve substantial improvements to many health indicators through the provision of basic primary health care (PHC) services (Starfield & Shi, 2002). Yet one of the most common situations perpetuating LMIC health inequities is an inadequate number of health care workers (Aluttis, Bishaw, & Frank, 2014; Anyangwe & Mtonga, 2007). In 2013, there was an estimated worldwide deficit of 7.9 million health care workers, a number that the WHO expects to increase to 12.9 million by the year 2035 (WHO, 2013). A newer prediction suggests that the global health worker deficit will reach 15 million by 2030 (Liu, Goryakin, Maeda, Bruckner, & Scheffler, 2017). Because timely and appropriate health care relies on an adequate supply of health care workers, these numbers portend a devastating crisis for global health. According to Miseda, Were, Murianki, Mutuku, and Mutwiwa (2017), the health care worker shortage is most prevalent in LMICs and has impeded
progress toward global health benchmarks, such as the United Nations’ (U.N.) Sustainable Development Goals.

In order to mitigate professional health care worker shortages, many LMICs use networks of community health workers (CHWs) to extend health services to underserved areas (Lehmann & Sanders, 2007). Community health workers are laypersons who provide some type of basic health care service for the communities in which they live (Lewin et al., 2005; WHO, 1989). They are often minimally trained volunteers who receive no financial remuneration for their services. Throughout the world, CHWs are known by many different names and are as diverse as the countries and communities they serve (Lehamann & Sanders, 2007). In many countries, CHWs have successfully implemented a range of health-related interventions, including vaccinations (Glenton, Scheel, Lewin, & Swinger, 2011), mental health counseling (Chibanda et al., 2016; Dewing et al., 2014; Rahman et al., 2016), chronic disease management (Jafar et al., 2010; Khetan et al., 2017), maternal-child health care (Gilmore & McAuliffe, 2013), and promotion of medication adherence (Peltzer et al., 2012).

While CHWs can provide much needed health interventions, conditions exist that impede long-term sustainability of CHW programs (Pallas et al., 2013). Factors negatively affecting CHWs include inadequate health-related knowledge, poor community and governmental support, and inadequate material and financial resources (Pallas et al., 2013). These factors, as well the physical and emotional demands of the CHW role can cause work-related stress that contributes to poor work performance and high rates of attrition (Akintola, Hlengwa, & Dageid, 2013; Gau, Buettner, Usher, & Stewart, 2013a; Gau, Usher, Stewart, & Buettner, 2013b; Van Dyk, 2007).

The Dominican Republic (D.R.) is an LMIC that, along with Haiti, occupies the southwestern Caribbean island of Hispaniola. The D.R. has a tropical climate, characterized by
warm temperatures and abundant rainfall throughout the year. The people of the D.R. are ethnically diverse, with most of the country being multiracial. According to the Central Intelligence Agency (2018), 70.4% of the population self-identify as mixed heritage, while 15.8% identify as black, 13.5% as white, and 0.3% as other. Approximately 430,000 immigrants reside in the D.R., and of that population, approximately 340,000 are from Haiti (Organisation for Economic Cooperation and Development [OECD], 2017).

With only 3.8 nurses per 10,000 people, the D.R. has one of the lowest nursing workforce densities in the Western hemisphere (Pan American Health Organization [PAHO], 2017a). In contrast, the United States of America (U.S.A.), which is also experiencing a significant nursing shortage, has 111.4 nurses per 10,000 people (American Association of Colleges in Nursing [AACN], 2017; PAHO, 2018).

Community health workers could play an important role in mitigating the negative consequences of the D.R.’s critical nursing shortage, particularly in rural communities, which are often located far from health care facilities. Indeed, some communities in the D.R. are turning to CHWs to extend health care services to rural and remote communities (Bonnell et al., 2018; Foster, Chiang, Hillard, Hall, & Heath, 2010; Viswanathan, Carretero, Afzal, Rodriguez, & Shirazian, 2015). Some studies have demonstrated that CHWs can successfully implement health promotion strategies and facilitate increased access to care in rural Dominican communities. For example, Bonnell et al. (2018) examined how Dominican CHWs were able to successfully use mobile technology to assess pregnant women in order to identify those at high risk for perinatal complications. In another study, Foster et al. (2015) partnered with Dominican CHWs to implement a home health program to provide perinatal care for women and their newborns. Both
studies concluded that Dominican CHWs could successfully offer appropriate and effective health interventions.

Still, past research involving Dominican CHWs has focused only on the outcomes of CHW-implemented health programs. For example, neither Bonnell et al. (2018) nor Foster et al. (2015) sought to understand the perspectives of CHWs participating in their studies. Accordingly, very little is known about the experiences and perceptions of Dominican CHWs themselves. Who are these health workers and how do they view their role? What challenges do they encounter and what factors support their efforts? Considering that CHW programs frequently fail to achieve long-term sustainability (Pallas et al., 2013), it is important to understand the perspectives and experiences of CHWs.

**Statement of Purpose**

The purpose of this study was to explore the experiences and perceptions of volunteer CHWs working in a rural community of the D.R. using a participatory action research (PAR) approach known as photovoice. Participatory action research is a research tradition increasingly used by scholars who wish to ensure that inquiry creates a space in which the voices of those who have historically been marginalized can be heard, validated, and amplified (Baum, MacDougall, & Smith, 2006; Vaughan, 2010; Wiersma et al., 2016). Researchers using PAR respect the perspectives and priorities of study participants, which are used to inform research agendas and actions to address the priority needs of those participants (Balazs & Morello-Frosch, 2013; Guta, Flicker, & Roche, 2013; Jamshidi et al., 2014). Of note, the synthesis of research and action has a particularly rich history in Latin America, where pioneering scholars such as Paolo Freire and Orlando Fals Borda helped shape the PAR tradition as we know it (Gutiérrez, 2016).
For this study, I chose a PAR approach known as photovoice to better understand the CHW experience from their perspectives. Photovoice is a research strategy that is well suited to working with communities to develop appropriate, sustainable action plans to address local issues (Wang & Burris, 1997). Using photovoice, participants take photographs that represent issues of importance to them. Through this process, they capture visual representations of their daily lives, which allow them to share their stories and experiences in a way that transcends language alone (Harper, 2002). Participants and researchers then collaborate to interpret the significance of photographs taken. The photographs can be used to validate the perspectives and experiences of participants as well as catalyze critical dialogue that can be used to mobilize resources and create plans to address local problems (Wang & Burris, 1997). Wang and Burris (1997) developed photovoice as a transformative approach to research, one that can inform local policymakers in order to achieve social change. Thus, photovoice has the dual benefit of generating rich data that reflects the voices of participants, as well as facilitating meaningful dialogue between participants, researchers, and community stakeholders (Wang & Burris, 1997). Importantly, no previous studies have used PAR or photovoice to explore the experiences of Dominican CHWs.

Community health workers encounter many barriers to their work, which contribute to high rates of CHW attrition (Nkonki, Cliff, & Sanders, 2011; Olang’o, Nyamongo, & Aagaard-Hansen, 2010). One study found CHW attrition rates as high as 49.6% (Ngugi et al., 2018). An understanding of how CHWs view their role in the community, the factors that sustain them, and the challenges they face, would be helpful for those seeking to support CHWs. In the D.R., humanitarian groups and government agencies have recognized the potential benefits of CHW programs and are collaborating with rural Dominican communities to design CHW-led health
interventions (Health Horizons International, 2018). Such collaborations could benefit from a deeper understanding of the day-to-day experiences of CHWs, which could guide the development of successful, sustainable CHW programs.

Additionally, through this study, I sought to provide a way for the voices of CHWs to be heard, not only by me, but also by individuals and groups working with CHWs. Studies by Dil, Strachan, Cairncross, and Korkor (2012) and Olang’o et al. (2010) demonstrated that CHWs desire the support and respect of their communities. Importantly, CHWs are not always considered full members of the primary care team, and are often left out of decision-making processes, which can make CHWs feel devalued (Grossman-Kahn et al., 2017). Consequently, results of this study can be used to facilitate dialogue between participants, local policymakers, community members, and humanitarian groups working in the community, so that appropriate strategies can be developed to support and sustain the work of local CHWs.

Results from the study can also benefit other CHW programs. Although the nature of most qualitative studies limits the generalization of findings, Stake and Trumbull (1982) described a process known as “naturalistic generalization”, through which people can learn from generalizations made about occurrences in their everyday life. Additionally, by reflecting on the details of a particular case, people can gain insights into their own lives and circumstances (Melrose, 2012).

**Study Significance**

This study addressed two significant knowledge gaps in the research literature that are identified in chapter two. First, while two studies have explored the outcomes of CHW-led health interventions in the D.R. (Bonnell et al., 2018; Foster et al., 2015), I could locate no studies that explored the self-perceived experiences of Dominican CHWs. Therefore, findings from this
study uniquely contribute to what is known about CHWs working in rural Dominican communities. Second, I could identify only one study that used photovoice to explore CHW experiences. In their research, Musoke, Ssemugabo, Ndejjo, Ekirapa-Kiracho, and George (2018), explored gendered roles among Ugandan CHWs. All other photovoice studies involving CHWs focused either on health-related outcomes or community needs assessments (Baquero et al., 2014; Postma & Ramon, 2016; Perez et al., 2016). Therefore, this research endeavor offers a novel way of exploring the experiences of Dominican CHWs. Finally, this study directly benefited research participants, who can now use the photographs to engage in critical dialogue with community leaders and external stakeholders about issues of importance to themselves and their communities. I will also continue to work with participants and their sponsoring NGO to identify ways in which the findings could be used to benefit their work.

**Significance to Health Care**

Ensuring the health of the world’s population is the charge of the international health care community. In 1978, member nations of the WHO convened in the Soviet city of Alma-Ata to discuss the role of PHC in addressing global health (WHO, 2018c). A result of this milestone conference was the Alma-Ata Declaration, which called for all governments to address the rising health inequities threatening the world’s most impoverished communities. The declaration identified PHC as the major mechanism through which global health justice could be attained (WHO, 1978). Primary health care is “essential health care based on scientifically sound and socially acceptable methods, universally accessible to individuals and families with their full participation at a cost that the community and country can afford in a spirit of self-reliance and self-determination” (WHO, 1978, para. 6). Importantly, the Alma-Ata Declaration identified CHWs as key members of the PHC model (WHO, 1978). A study conducted by Starfield and Shi
(2002) compared the strength of 11 countries’ primary health infrastructures with health outcomes and health care costs. The researchers concluded that strong primary care systems were associated with reduced health costs and improved population health.

Considering the Alma Ata declaration, findings from this study have direct significance for health care. Advances in travel, business, and communication industries have contributed to an increasingly globalized society (Zarshenas, Sarvestani, Molazem, & Moattari, 2017). Characterized as “networks of interdependence at worldwide distances” (Nye, 2001, p. 2), globalization has led to a world of interconnected cultures that are mutually dependent and in a state of constant interaction. Accordingly, health has become a global concept (Chattu, 2017; Zarshenas et al., 2017). Global health crises, such as the 2009 swine flu pandemic and the Ebola virus outbreak of 2014, exemplify how health problems in one country can have international consequences (Heath, 2016).

Arguably, one of the most serious epidemics facing the world today is the increasing prevalence of chronic disease. Conditions such as diabetes, coronary artery disease, and hypertension are straining the global health care workforce, particularly in countries that have resource-limited health systems (Moucheraud, 2018). Health inequities continue to grow (Chattu, 2017), and the benefits of the PHC model cannot be realized without an adequate health care workforce. Without enough nurses and physicians, nations must seek new avenues through which to meet the world’s burgeoning health burden. Community health workers are no longer simply auxiliary support for local health teams but are vital members of the PHC model (WHO, 1978). According to Kangovi and Asch (2018), “The key question is not whether community health workers are effective, but how we can make them as effective as possible” (para. 2).
According to PAHO, basic health and development indicators have been steadily improving in the D.R. since 1990 (PAHO, 2017a). Nevertheless, health inequities in the D.R. persist (Rathe, 2010). Health access is particularly problematic in rural Dominican communities with high populations of undocumented Haitian immigrants, who are excluded from participation in the national health care system (Ho, Press, & Sethna, 2014; Maliszewski, Enriquez, Cheng, Logan, & Watts, 2017). Additionally, significant risk factors for preventable infectious diseases still prevail in many of the country’s underserved communities, which often lack clean water supplies and adequate sanitation systems (Lund, Keys, Leventhal, Foster, & Freeman, 2015). Rural and remote communities in the D. R. experience significant morbidity from chronic, non-communicable diseases such as diabetes, hypertension, heart disease, and chronic obstructive pulmonary disorders (Ferrara, Townsley, MacKay, Lin, & Loh, 2014; Ho, et al., 2014; Miller, Lin, Kang, & Loh, 2016).

Not surprisingly, international humanitarian groups and Dominican health officials are collaborating with local CHWs to implement health programs in underserved communities (Bonnell, et al., 2018; Foster et al., 2010; HHI, 2018). However, very little is known about the experiences of Dominican CHWs. Knowledge from this study provides qualitative insight into the experiences of a specific group of Dominican CHWs in the northern region of the country known as Puerto Plata. CHWs in this region live and work in several satellite communities of the town of Montellano. Findings can be used by the CHWs and their community partners to directly support their work. Additionally, this study might influence additional groups to conduct similar PAR studies in other LMIC communities in order to better support the work of local CHWs.
Significance to Nursing Practice

Given that nurses comprise the largest branch of health care professionals, this study has direct significance for nursing practice. Provision eight of the American Nurses’ Association (ANA) code of ethics states that “the nurse collaborates with other health professionals to protect human rights, promote health diplomacy, and reduce health disparities” (ANA, 2015, p. 31). Specific to global health, the 2015 revisions to the nursing code of ethics added verbiage that clarified nursing’s role in addressing global health through participation in the development of social and health policy (Epstein & Turner, 2015). Nurses have an ethical commitment to social justice, which includes working to ensure the provision of reasonable and appropriate health care access around the globe.

Community health nurses frequently collaborate with local residents and leaders to improve the health and well-being of community members (Allendar, Rector, & Warner, 2014). In some cases, nurses serve as liaisons between CHWs and the public health care system (King et al., 2017). Quillian (1993) argued that nurses with community and public health backgrounds have expertise on how social and environmental factors affect health and well-being and are therefore well suited to collaborate with CHWs in LMIC settings. Grady (2015) noted that nurses play a critical role in developing and delivering education for CHWs.

In many countries, nurses serve as mentors, educators, and supervisors of CHWs (George et al., 2011; Rennert & Koop, 2009). For example, nurses have served as supervisors for CHWs providing home-based HIV/AIDS care in South Africa (Uys, 2002). In the U.S.A., Roman, Raffo, and Meghea (2012) found that low-income women receiving perinatal care from nurse-CHW teams reported better psychosocial care than women who received care from nurses alone. In Canada, nurses delivered fall prevention training to CHWs, which led to a decrease in fall-
related fractures within the community (Scott, Votova, & Gallagher, 2006). Finally, Kambarami et al. (2016) reported that nurses provided supervision and feedback for CHWs delivering nutrition and hygiene education to pregnant women in rural Zimbabwe.

In the D.R., nurses could benefit from insights into the experiences of CHWs, which could facilitate an increased appreciation of the CHW role. Deeper understanding of the experiences of local CHWs might be particularly important for nurses who are part of international outreach teams. Each year, the D.R. hosts significant numbers of humanitarian groups, which frequently include nurses (USAID, 2018; Zinsli & Smythe, 2009). Nurses offering humanitarian aid often come from cultures significantly different than the cultures of the communities in which they work (Lal & Spence, 2016). Differences in culture can lead to unintentional missteps that can diminish trust and compromise collaboration between nurses and their local partners (Decamp, 2007). Furthermore, nurses and other health professionals from Western countries risk imposing their values on hosting communities (Lal & Spence, 2016). Nurses who understand and appreciate the experiences of CHWs would be better positioned to provide individualized, culturally appropriate support for CHWs that respects the expertise and autonomy of local partners. Consequently, this study’s findings have direct relevance for nurses collaborating with Dominican CHWs to implement robust community-level health programs.

**Significance to Nursing Research**

The purpose of nursing research is to generate evidence that can be used as the basis for nursing practice (Johnson, 1959). According to Grady (2015), nurses play an important role in interdisciplinary global health research, a fact that the WHO acknowledged through the creation of Nursing Collaborating Centers. These centers focus on team-based research to address issues of regional and global significance.
As previously noted, nurses frequently collaborate with CHWs on community-level health initiatives. Nurses who serve as mentors, educators, and supervisors for CHWs need a sound knowledge base to guide them in these roles. Nurse researchers have the ability and the professional mandate to provide their peers with scientific evidence on which to develop best practices when working with CHWs. Accordingly, this study is significant to nursing research as it contributes to what little is currently known about the needs and experiences of Dominican CHWs. Findings from this study can be used by other nurse researchers to develop and test interventions designed to support CHWs. Additionally, nurse researchers can replicate this study with other populations of CHWs, so that supportive strategies could be tailored to the individual needs of specific CHW groups.

**Significance to Study Participants**

One of the major benefits of PAR is that it can directly benefit research participants (Hergenrather, Rhodes Cowan, Bardhoshi, & Pula, 2009). Previous research has shown that photovoice can increase community engagement to address important health issues, build capacity to address local problems, and enhance the self-efficacy of communities to develop solutions for local problems (Budig et al., 2018; Israel et al., 2010). In an evaluation of the transformative potential of photovoice, Budig et al. (2018) found that photovoice contributed to an increase in three dimensions of participant empowerment: knowledge development and improved critical awareness, enhanced self-perception, and increased social capital. As an empowerment strategy, Morgan et al. (2010) used photovoice to provide women in rural Costa Rica with an avenue to communicate their needs to policymakers.

This study used the participatory nature of photovoice to facilitate critical reflection among participants about issues of importance to their lives and their work as CHWs.
Knowledge gained through the process can now inform actions to enhance their practice as CHWs. During the study, participants acted as co-researchers and data were interpreted through a collaborative process. The research process provided an opportunity for participants to construct new perspectives on their experiences as CHWs. The process also allowed participants the opportunity to identify both individual and collective needs, which can subsequently be shared with community leaders and local policymakers. Although my research did not include an action component, I plan to continue the research agenda I have begun by working with participants and their community partners, using the findings to inform future ways of supporting and enhancing the work of local CHWs.

**Theoretical Frameworks**

Polit and Beck (2017) noted that scholars use theoretical frameworks to organize inquiry and to provide a structure with which to understand the meaning and significance of knowledge generated through research. Theory undergirds research, providing it with a foundation from which to generate trustworthy knowledge (Polit & Beck, 2018). Appropriate use of theoretical frameworks provides congruency and linkages within a discipline’s knowledge base (Risjord, 2010). Theory can also help situate a particular study securely within the scholarly domain of a discipline, provide a rationale for inquiry, and ensure that the study aligns with the needs of the discipline (Gunter, 1962; Risjord, 2010). Conversely, researchers who do not use theoretical frameworks to guide their work risk generating facts and ideas that are disconnected or irrelevant to their discipline’s broader knowledge base (Gunter, 1962).

Three theoretical approaches informed the conceptual framework of this study. First, role theory guided understanding of how participants perceive, construct, and navigate their roles as CHWs. Second, social cognitive theory (SCT) framed how environmental and personal factors
can influence role behaviors. Third, Freire’s theory of critical pedagogy, which underpins the photovoice process, informed the study’s PAR approach. What follows is a description of each theory, how the theory relates to the study, and how the theories were integrated to frame inquiry.

**Role Theory**

With roots in sociology, psychology, and anthropology, scholars have used role theory to guide research across a number of disciplines (Biddle, 1979). At the core of role theory is the concept that people assume roles in their societies and that these roles are influenced by interactions between the individual and the societies in which they live (Biddle, 1979). Within these roles, individuals adopt behavioral patterns based upon personal and societal expectations of a particular role. Banton (1996) explicitly delineated a role as “the expected behavior associated with a social position” (p. 749). Thus, according to role theory, certain human behaviors can be explained by the roles that individuals assume in their societies.

Role theory has given rise to several important social science concepts, such as role overload, in which an individual may be overwhelmed by the expectations of a specific role, and role conflict, in which a person has assumed two roles that have opposing expectations (Biddle, 1979). Role theory is also related to identity formation, explicating how individual identity is constructed through the social roles that one assumes (McCall & Simmons, 1978). From this perspective, social roles shape individual and collective identities.

Although multiple perspectives of role theory exist, Biddle (1979) noted that most iterations incorporate five key propositions. Biddle delineated these propositions as follows:

1. Individuals exhibit patterned behaviors within certain contexts, which form *roles.*
2. These roles are associated with groups of people, who share a common identity by occupying the same *social position*.

3. Individuals are usually aware of the roles they assume, and this *awareness*, to some extent, governs their actions.

4. Roles are sustained in part by their outcomes or *functions*, which are often integrated within a larger social system.

5. Roles must be learned via *socialization*, and the performance of one’s role may lead to positive or negative consequences for individuals.

Biddle (1986) also asserted that roles are not only influenced by social norms, but also by the beliefs and preferences of the person assuming the role. Biddle described four major approaches to role theory, each of which provides a different orientation toward the nature and process of role development. These four approaches are functional role theory, symbolic interactionist role theory, structural role theory, and organizational role theory).

For this study, I adopted a symbolic interactionist approach to role theory, which allows for a more holistic view of factors influencing role development (Biddle, 1986). Within the perspective of symbolic interactionism, roles are not static, but evolve continuously through social interaction (Biddle, 1986). “Actual roles, then are thought to reflect norms, attitudes, contextual demands, negotiation, and the evolving definition of the situation as understood by the actors” (Biddle, 1986, p. 71). By this definition, the way a person perceives a role is a critical factor that influences role transformation, as are a person’s understanding of the social contexts in which roles are enacted. How a person perceives a role and negotiates that role within society is key to understanding how a person behaves in a given role.
Considering its key propositions, role theory was an appropriate framework to guide a study that explored how CHWs perceive and navigate their role in a community. The CHW role exists to fulfill a social need. Community health workers assume specific roles that carry behavioral expectations due to the social position and function of the CHW role. From a symbolic interactionist perspective, personal beliefs and preferences of CHWs directly influence their behavior in their role and can also affect how that role evolves over time. Additionally, how CHWs perceive the larger social context can influence how they negotiate their role in the community.

**Social Cognitive Theory**

While role theory provides a framework with which to understand how roles are influenced by social and personal characteristics, it is limited in its ability to explain how non-social, environmental factors can affect role behaviors. Social cognitive theory can complement role theory by providing a broader perspective with which to understand the impact of environmental influences on the CHW role.

Initially conceptualized as a social learning theory, SCT posits that human behavior occurs within a social context and is influenced by reciprocal interactions between people and their environment. Central to SCT is the concept of reciprocal determinism, which characterizes human action as the product of continuous, reciprocal interplay between an individual’s behavior, cognition, and the environment (Bandura, 1986). Thus, reciprocal determinism can be described as a cyclical, multi-directional process in which each of the three concepts (cognition, environment, and behavior) influences each other. To clarify the nature of this interaction, each element of SCT’s model of reciprocal determinism is summarized below.
The cognitive dimension of reciprocal determinism can be described as personal factors such as values, beliefs, expectations, goals, and knowledge (Bandura, 1986). Cognitive factors can influence the behavior of an individual and can influence how a person responds to their environment. In turn, environment and behaviors can shape an individual’s cognitive dimensions.

The environmental dimension of reciprocal determinism can be understood as the physical, social, and cultural milieu that forms the context of individual and community life (Bandura, 1986). The environment is their life’s context, which shapes a person’s behavior, their beliefs, values, and knowledge. Likewise, a person can act upon their environment, using knowledge and values to inform the choice of actions taken.

The behavioral dimension of reciprocal determinism can be described as an individual’s actions, choices, and responses. Within Bandura’s model, behaviors are products of the interaction between cognitive/social factors and an individual’s environment. Equally, behaviors shape both an individual’s personal characteristics and their environment (Bandura, 1986).

Social cognitive theory is complementary to role theory in that both frameworks link personal and environmental factors to human behavior. This congruence provides the basis for integrating the two theories to inform the conceptual framework of this study. Although role theory focuses on human behaviors within prescribed roles, SCT can be more broadly applied to all human action. Moreover, SCT allows for how non-social environmental factors can influence beliefs and behaviors. For example, SCT could increase understanding of how access to material resources or local geography could affect the beliefs and behaviors of study participants. As this study will take place in underserved communities of the D.R., environmental characteristics are
important factors to consider. Thus, integrating role theory and SCT provides an appropriate foundation for the conceptual framework of this study.

**Freire’s Theory of Critical Pedagogy**

The final theory that undergirds the conceptual framework for this study is Paulo Freire’s (1970/2018) concept of critical pedagogy, which is grounded within the realm of critical theory. Critical theory is particularly appropriate to inform research that examines issues involving social inequity and power structures. Critical theorists explore concerns among marginalized or disadvantaged groups with the express objective of facilitating changes in unjust structures or conditions (Creswell & Poth, 2018; Fay, 1987). Through the lens of critical theory, researchers produce practical knowledge that can be used to inform concrete actions for social change (Denzin & Lincoln, 2005).

In *Pedagogy of the Oppressed*, Freire (1970/2018) described the theory of critical pedagogy, which explicates how oppressed or marginalized groups can use deliberate processes of reflection and dialectical discussion to gain a deep understanding of social and political forces that contribute to their life circumstances (Freire, 1970/2013; Freire, 1974/2013). Once people comprehend the objective nature of their situation, they can use their new knowledge to solve problems and achieve social change (Freire, 1970/2018). Freire used the term *praxis* to describe the cyclical process of critical reflection and action. According to Freire, praxis is “reflection and action directed at the structures to be transformed” (Freire, 1970/2018, p.126). Much like SCT, praxis describes a reciprocal relationship between thought and action, although in Freire’s framework there is deliberate direction of thought toward achieving purposeful transformation. Thus, Freire’s concept of praxis necessarily incorporates intentionality into the thought-action relationship.
Wang and Burris (1997) used the Freire’s theory of critical pedagogy to guide the development of photovoice. According to Wang and Burris, researchers and participants use the images generated through photovoice to facilitate critical dialogue about matters of importance for participants. Through photovoice, participants share their experiences, make connections with each other, identify and prioritize issues, and develop action plans for change. Ultimately, the goals of photovoice are to allow people to reflect on community strengths and needs, to develop knowledge about local issues through critical dialogue, and to inform policymakers and other influential stakeholders so that problems can be addressed (Wang & Burris, 1997).

With an emphasis on addressing social inequities, Freire’s theory of critical pedagogy fits well with the aims of this study. Underserved communities of LMICs frequently lack access to the most fundamental determinants of health, including clean water, sanitation systems, medications, and trained health care workers. Both local and international political structures have been implicated in perpetuating these health inequities among LMICs. The crucial need for CHWs in LMICs is a consequence of this inequitable distribution of national and international health resources. Accordingly, Freire’s theory of critical pedagogy was appropriate for guiding a photovoice study of Dominican CHWs, who carry out their caregiving roles within a context of social inequity. Whereas role theory and SCT provided a sound basis for understanding reciprocal relationships between role behavior, personal characteristics, and environmental factors, critical pedagogy allowed for how people use dialectical discourse and deliberate reflection to catalyze meaningful actions to transform their community’s circumstances. According to Freire, “it so happens that to every understanding, sooner or later an action corresponds” (Freire, 1974/2013, p. 42). Freire’s statement underpinned the pragmatic nature of this study, which aimed to generate knowledge that will be useful for study participants.
Research Questions

The goal of this study was to answer the following research questions:

1) How do CHWs view their role in the community?
2) What factors support the work of CHWs?
3) What challenges do CHWs encounter in their work?

Assumptions

Assumptions are beliefs that are held to be true without scientific evidence (Polit & Beck, 2017). Assumptions permeate each step of the research process. Therefore, it is important to explicitly identify study assumptions. Research assumptions associated with this study stemmed from the chosen theoretical frameworks, the selected methodology, my personal worldviews, and the professional values of the nursing discipline.

Theoretical Assumptions

Theories are built upon certain underlying assumptions, which consequently undergird research informed by theoretical perspectives. Each of the three theoretical frameworks informing this study had several relevant assumptions. What follows is a summary of these assumptions, organized according to their respective theories.

Role theory. Biddle (1979) identified several important assumptions associated with a symbolic interactionist approach to role theory. A first assumption is that individuals perform certain roles in society. A second assumption is that certain behavioral patterns are associated with social roles. A third assumption is that people are at least partially aware of the roles they play and that awareness influences their actions. A fourth assumption is that people attach certain expectations with given roles. A fifth assumption is that roles are influenced by the values, beliefs, and preferences of people performing them. A sixth assumption, specific to symbolic
interactionalism in role theory, is that people can negotiate their roles in society, which can lead to changes in the nature or expectation of those roles (Biddle, 1986).

**Social Cognitive Theory.** Bandura (1986) provided several relevant assumptions associated with SCT. A first assumption is that people can use symbolic thinking to take innovative courses of action. A second assumption is that people learn by observing others through a process called modeling. A third assumption is that human behavior is goal-directed. A fourth assumption is that environment, behavior, and personal factors (such as beliefs, knowledge, and values) continuously and reciprocally influence each other. A fifth assumption is that people are capable of self-reflection and self-regulation.

**Critical Pedagogy.** Several assumptions associated with Freire’s (1970/2018) approach to critical pedagogy were relevant for this study. Carrillo (2007) summarized the assumptions and dimensions of Freire’s theory. A first assumption is that social inequities exist. A second assumption is that unjust power differentials perpetuate social inequity. A third assumption is that a critical understanding of objective reality is necessary for social change. A fourth assumption is that critical reflection and dialectical dialogue can facilitate the development of a critical understanding of reality.

**Methodologic Assumptions**

In addition to theoretical perspectives, methodologic choices also bring certain assumptions to research. Accordingly, several methodologic assumptions underpinned the study. First, I assumed that, with training, participants could learn to use a digital camera correctly. Consequently, I assumed that participants had the physical and cognitive abilities to learn how to take photographs. Additionally, I assumed that many of the participants had experience taking digital photographs. I confirmed these assumptions in an initial training session, during which I
evaluated how successful participants were at taking photographs. Another methodologic assumption was that images could be effective tools for triggering critical reflection and discussion of issues important to participants in this study. Finally, related to PAR, I also assumed that participants had the capacity and motivation to collaborate in the research process.

**Personal Assumptions**

There were several personal assumptions associated with this study. First, I assumed that participants valued health and wanted to improve health outcomes in their communities. Second, I assumed that participants wanted to improve their capacity to work as CHWs. Third, I assumed that participants would want to participate in the study. Fourth, I assumed that participants, to the best of their ability, would respond candidly during interviews and group discussions.

**Nursing Assumptions**

Three assumptions relevant to nursing are associated with this study. First, I assumed that nurses have a professional obligation to promote social justice. Second, I assumed that nurses value CHWs as members of the global health care workforce. Third, I assumed that nurses have the knowledge, skills, and desire to support the work of CHWs.

**Definition of Terms**

Throughout this study, I used key terms that are important for readers to understand. Therefore, in this section, I provide the following list of definitions. Many of these definitions are from the WHO, as the organization’s philosophy aligned well with the aims of this study, as well as with my personal worldview.

**Critical Consciousness**

Freire (1970/2018) described critical consciousness as a process through which people use critical thinking, reflection, and dialectical discussion to develop a deep understanding of
their concrete reality. Freire noted that in order for people to overcome oppression and marginalization, they must first become critically aware of factors that perpetuate the oppressive state (Freire, 1970/2018).

**Community Health Workers**

The term “community health worker” can have many meanings depending on the context in which it is used. For the purposes of this study, I defined CHWs as laypersons with minimal or no medical training, who offer some type of health care services in their home communities, and who receive little or no financial remuneration for their services. This definition was an adaptation of one provided by the WHO (Lehmann & Sanders, 2007). By this definition, CHWs work primarily on a volunteer basis. Excluded from this definition are paid workers, as well as physicians, nurses, and other trained medical professionals who have received formal education in health care.

**Health**

For this study, I adopted the WHO’s definition of health. “Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (WHO, 1946, para. 2).

**Health Inequity**

As previously noted, CHWs working in LMICs practice within the context of considerable health inequities. For this study, I also used the WHO’s definition of health inequity:

Health inequities are differences in health status or in the distribution of health resources between different population groups, arising from the social conditions in which people
are born, grow, live, work and age. Health inequities are unfair and could be reduced with
the right mix of government policies (WHO, 2018a, para. 4).

**Low-to-Middle Income Country (LMIC)**

According to the World Bank, LMICs are nations with a per capita gross national income
(GNI) between $0 and 12,055 dollars. The World Bank maintains a list of countries classified by
their GNI (World Bank, 2019).

**Participatory Action Research (PAR)**

This study used a PAR design, and so it was important to provide a working definition of
this methodologic approach. A key point of this definition is that PAR is concerned with inquiry
that enables action to achieve social change (Baum et al., 2006). For this study, I adopted Baum
et al.’s (2006) definition, in which PAR is characterized as:

Collective, self-reflective inquiry that researchers and participants undertake, so they
can understand and improve upon the practices in which they participate and the
situations in which they find themselves. The reflective process is directly linked to
action, influenced by understanding of history, culture, and local context and embedded
in social relationships (Baum et al., 2006, p. 854).

**Photovoice**

Photovoice is a specific form of PAR that uses photographs to elicit dialogue about
specific issues of interest. Photovoice was originally developed by as a method for investigating
the health needs of women living in the Yunnan province of China (Wang & Burris, 1997).
According to Wang and Burris (1997) “Photovoice is a process by which people can identify,
represent, and enhance their community through a specific photographic technique” (p. 369).
Primary Health Care

For this study, I used the definition of PHC set forth in the declaration of Alma-Ata, which states that PHC is “essential health care based on scientifically sound and socially acceptable methods, universally accessible to individuals and families with their full participation at a cost that the community and country can afford in a spirit of self-reliance and self-determination” (WHO, 1978, para. 6).

Limitations

The study I conducted had several limitations. First, because I conducted research with a small group of participants from six communities that surrounded the town of Montellano, findings from the study are not transferable to the larger population of CHWs. Second, recruitment for the study relied on participant self-selection. Participants might have opted to participate based upon unidentified variables, which further limits generalizability of findings.

Additionally, participants might have felt uncomfortable sharing personal information with me or might have responded to questions in a way that would be viewed favorably by me, other participants, or the NGO that sponsors their program. Furthermore, participants might have felt uncomfortable with being recorded. To mitigate response biases, I implemented several strategies to ensure a comfortable, safe, and confidential environment for data collection. I conducted individual interviews in private locations that the participants selected. Most of the interviews took place at the participant’s homes. Individual interviews also provided participants the opportunity to share their experiences outside of a group environment.

Another limitation stemmed from the fact that I am from a different culture than that of the participants. The beliefs and values held by participants might not reflect my own views. To mitigate potential bias arising from cultural differences, I spent time in each of the communities
in which participants lived, meeting with participants informally before data collection began. Through casual meetings, field observation, and formal research into the history and culture of the D.R., I sought to understand the social context of participants’ lives. Furthermore, I engaged in self-reflective journaling at the end of each day of data collection and analysis. Self-reflection helped me to identify and bracket my own beliefs so that I became conscious of their effect on the research process.

As a final limitation, this study involved cross-language research, as my native language is English, and all participants spoke Spanish. Accordingly, I used a translator and an interpreter during data collection and analysis. Although I implemented several strategies to mitigate the effects of cross-language research, ultimately the process of translation limits to some extent the trustworthiness of findings. Methods that I used to reduce the effects of cross-language research included double translation and participant verification of study findings. Additionally, although my native language is English, I have intermediate fluency of spoken Spanish, and am proficient at reading the language. Therefore, I was also able to review transcripts for consistency in interpretation.

Summary

This chapter introduced a study that explored the perceptions and experiences of CHWs living and working in a rural community of the D.R. Community health workers are minimally trained laypersons who serve as an important part of the community health care team in LMICs. Consequently, this study is significant for health care, nursing, and nursing research. Additionally, the PAR methodology used in this study established direct significance for study participants. This study aimed to answer three specific research questions that I have set forth
above. I also provided a description of the assumptions and limitations associated with this study. Finally, I defined key terms that are important for understanding the study’s context.
Chapter 2: Literature Review

In this chapter, I summarize the literature review I conducted in order to situate the study within the broader context of past community health worker (CHW)-related research. In doing so, I describe a significant knowledge gap in what is known about the experiences of CHWs working in the D.R. I begin by providing an historical overview of the evolution of CHWs, evidence of their effectiveness, and challenges encountered to CHW success and long-term sustainability. Next, I examine the role of CHWs in the D.R. I also include a brief historical overview of the D.R. and its health care system to facilitate understanding of the social and environmental context of the study. Finally, I report how scholars have used role theory, SCT, and critical pedagogy to guide past CHW-related research. In this last section, I also discuss alternative theoretical frameworks that could have been used to guide the study. Given the historical nature of some of the topics (for example, the overview of the D.R. and the evolution of CHWs), these sections include older publications as well as selections from the gray literature.

The Evolution of Contemporary CHWs

According to Perry (2013), the origins of modern CHW programs can be traced back to 19th century Russian Feldshers, local people with limited training who assisted physicians and provided basic health care services to residents of rural villages. Another example, and one of the earliest large-scale CHW programs, was the Barefoot Doctors of China (BDCs), who began as illiterate farmers trained to provide basic health care interventions such as vaccinations, health education, and first aid (Rifkin, 2008). The BDCs, originally known in the 1920s as “farmer scholars” (Perry, 2013), became prominent in the mid-20th century, turning into a nationally recognized program in the 1960s (Lehmann & Sanders, 2007). Success of the BDCs inspired other countries to initiate similar CHW programs during the 1960s and 1970s (Sanders, 1985).
As CHW programs grew in number, their potential role in community-based health care became more evident.

In response to rising global health inequities, the WHO and the United Nations Children’s Fund (UNICEF) sponsored the 1978 International Conference on Primary Health Care at Alma-Ata, a former city of the Union of Soviet Socialist Republics (U.S.S.R.). Arguably, one of the most important outcomes of this convention was the Alma-Ata Declaration, which charged the world’s governments to address the significant health inequities suffered by impoverished communities around the world. The declaration identified PHC as the means through which health equity for all nations could be obtained (WHO, 1978). PHC is “essential health care based on scientifically sound and socially acceptable methods, universally accessible to individuals and families with their full participation at a cost that the community and country can afford in a spirit of self-reliance and self-determination” (WHO, 1978, para. 6). In a study that examined the strength of the primary care systems of 11 countries, Starfield and Shi (2002) concluded that strong primary care systems were associated with reduced health costs and improved population health.

Of particular relevance to the proposed study, the Alma-Ata Declaration identified CHWs as a cornerstone of the PHC model (WHO, 1978). According to Bender and Pitkin (1987) CHWs can extend PHC services to underserved populations. Bryant (1978) called CHWs the interface between communities and health care systems. Since CHWs are typically residents of the communities they serve, they are intimately familiar with local health problems, are more likely to be trusted by fellow residents, and are well positioned to advocate for the unique needs of their communities (Bender & Pitkin, 1987; Lehmann & Sanders, 2007). These characteristics give CHWs powerful potential to catalyze community participation in local health issues, thereby

The Alma-Ata convention contributed to significant international interest in the CHW model, and CHW programs proliferated globally in the 1970s and 1980s (Lehmann & Sanders, 2007). Large-scale CHW programs emerged in countries such as Brazil, Bangladesh, and Nepal, and both public and private stakeholders, including non-governmental organizations (NGOs) and religious institutions, began investing in CHWs (Perry et al., 2014). Although CHWs providing general care were particularly abundant, specialist CHW programs also emerged in areas such as maternal-child health and malaria control (Lehmann & Sanders, 2007).

Soon, however, governments struggled to sustain these programs, which relied heavily on volunteers providing care with limited resources (Lehmann & Sanders, 2007). As members of the communities they serve, CHWs are often themselves impoverished. CHWs frequently balance their volunteer work with the need to provide financially for themselves and their families (Chevalier, Lapo, O’Brien, & Wierzba, 1993; Olang’o et al., 2010). These competing needs contributed to CHW attrition rates as high as 77% in the 1980s (Nkonki et al., 2011). In addition, global financial upheavals led LMICs to decrease funding for public health initiatives, including CHW programs (Perry, 2013). Mundeva, Snyder, Ngilangwa, and Kaida (2018) noted that CHWs were never a panacea for weak health care systems, and that poor integration of CHWs within the public health infrastructure contributed to CHW disempowerment. Navarro (2008) argued that the Alma-Ata Declaration was a modest step toward global health justice, one that has since been diluted by the growing influence of capitalism. He attributed a decrease in international public health funding to the global spread of neoliberalist ideology, which emphasizes the privatization of health care and reduction of public health care expenditures.
Without formal support from public health systems and political leaders, many CHW programs lacked the resources necessary for long-term sustainability (Pallas et al., 2013).

Despite the decline of CHW programs in the late 20\textsuperscript{th} century, there is currently a renewed interested in CHWs (Schneider, Okello, & Lehmann, 2016). Neoliberal economic policies, increasing global health disparities, a critical shortage of health care workers, and international health policies such as the U.N.’s Sustainable Development Goals (SDGs) are key factors contributing to an international upswing of CHW programs (Perry, 2013; Perry, Zulliger, & Rogers, 2014; Segall, 2003). Schneider et al. (2016) examined articles from 2005 to 2014 in order to better understand contemporary trends in CHW programs. The researchers identified and analyzed a total of 678 articles focused on CHWs, 604 of which were empirical studies. The yearly number of indexed publications steadily increased from 23 in 2005 to 156 articles by 2014. The researchers noted that programmatic focus of the CHW programs included maternal-child survival (which accounted for one third of the publications), HIV and tuberculosis care, reproductive health, malaria care, non-communicable disease management, mental health, and comprehensive care. Comprehensive care was defined as programs that combined two or more of the other areas of focus (Schneider et al., 2016). Schneider et al. reported that 46 countries were represented in the articles, with nearly half the publications coming from Africa and approximately one third from Asia and the South Pacific. Only 11.1\% of the papers were from the Americas, and of those, 80\% focused on Brazil (Schneider et al., 2016). Importantly, none of the studies explored CHW-related topics within the context of the D.R.
CHW-Led Health Interventions in LMICs

Although current incarnations of CHWs are exceedingly diverse, they all have a general purpose of providing some type of health services for their communities (Bender & Pitkin, 1987; Lehmann & Sanders, 2007). Accordingly, it is important to consider their potential to contribute to increased health in their communities. There is a robust body of research that has investigated the ability of CHWs to positively impact community health outcomes (Abdel-All, Putica, Abimbola, & Joshi, 2017; Jeet, Thakur, Prinja, & Singh, 2017; Khetan et al., 2017; Lehmann & Sanders, 2007). Several recent systematic reviews were identified that synthesized the outcomes of CHW health interventions over a range of contexts. These contexts included maternal-child health (Gilmore & McAuliffe, 2013), cardiovascular disease prevention (Abdel-All et al., 2017; Khetan et al., 2017), non-communicable disease prevention (Jeet et al., 2017), parenteral medication delivery (Glenton, Khanna, Morgan, & Nilsen, 2013), and mental health care for persons living with HIV/AIDS (Chibanda, Cowan, Healy, Abas, & Lund, 2015). Some of these reports used formal quality assessment tools to evaluate the strength of the evidence produced by the studies reviewed, as well as the potential for study bias (Abdel-All et al., 2017; Chibanda et al., 2015; Gilmore & McAuliffe, 2013; Jeet et al., 2017). Quality assessment tools used included the Cochrane Collaboration’s tool for assessing risk of bias (Chibanda et al., 2015), the Effective Public Health Practice Project’s Quality Assessment Tool for Quantitative Studies (Gilmore & McAuliffe, 2013), and the Hamilton Effective Public Health Practice Project Checklist for Quantitative Studies (Jeet et al., 2017). Gilmore and McAuliffe (2013) and Chibanda et al. (2015) determined that the quality of evidence from several of the reviewed studies was low, with a significant risk for bias. Factors contributing to lower quality included inadequate control of confounding variables, participant attrition, and flaws in study designs. Nevertheless, most of
the systematic reviews concluded that CHWs contributed significantly to positive community health outcomes (Abdel-All et al., 2017; Chibanda et al., 2015; Gilmore & McAullife, 2013; Jeet et al., 2017; Khetan et al., 2017).

**CHWs in HIV/AIDS Care**

A number of recent studies of CHW-led interventions have been conducted within the context of HIV/AIDS care in the LMICs of Africa (Peltzer et al., 2012; Bango, Ashmore, Wilkinson, Cleary, & van Cutsem, 2016; Grimsrud, Sharp, Kalombo, Bekker, & Myer, 2015). Much of this research has focused on CHW-led initiatives to increase adherence to antiretroviral therapy (ART). In a notable example, findings from a randomized control trial (RCT) at a South African hospital revealed that a CHW-led adherence program could be just as effective as one led by professional health care providers (Peltzer et al., 2012). The trial included 152 HIV-positive participants who were randomly assigned to one of two medication adherence interventions: one implemented by CHWs and the other driven by professional providers. Adherence was measured by the Adult AIDS Clinical Trials Group (AACTG) adherence instrument. No significant difference in ART adherence was reported between the groups, suggesting that CHWs were just as successful as health care professionals at promoting ART compliance.

Similarly, satisfactory ART adherence has been achieved by using CHW-led adherence clubs, which are support groups designed to increase ART medication compliance (Bango et al., 2016; Grimsrud et al., 2015). These adherence clubs, when compared to nurse-driven standards of care, have demonstrated comparable effectiveness at retaining patients and maintaining viral load suppression. One study reported that viral suppression in patients participating in CHW-led adherence clubs was 99.06% at the end of a 1-year period, which was slightly higher than the
97.2% suppression rate of patients receiving the standard of care (Bango et al., 2016). In this case “standard of care” involved nurses meeting monthly with patients to prescribe ART medications with support from physicians. In another study of adherence clubs, only 6% of 2133 participating patients dropped out of care, and over 98% of these patients maintained adequate viral suppression (Grimsrud et al., 2015).

Still, not all studies have demonstrated similar degrees of CHW success. In Tanzania, a study of a CHW-led program designed to improve treatment adherence and care retention of HIV-positive, pregnant women found the program had no significant impact on patient retention (Nance et al., 2017). However, findings from this study, which was an RCT conducted in 32 communities, demonstrated some improvement in ART adherence in several facilities where the intervention was implemented (Nance et al., 2017). The researchers concluded that partial success of the intervention in some locations was contingent on how the programs were implemented locally. For example, in some communities, there was greater fidelity to the intervention, which led to a stronger effect on participant adherence to ART. Additionally, some participants had already overcome obstacles such as transportation costs, which appeared to increase their receptiveness to the CHW intervention.

**CHWs in Mental Health Care**

In addition to HIV/AIDS care, studies have also demonstrated that CHWs can deliver appropriate mental health interventions (Chibanda et al., 2016; Fils-Aimé et al., 2018; Paudel, et al., 2014; Rahman et al., 2016). To illustrate, Rahman et al. (2016) conducted an RCT in Pakistan that investigated the effectiveness CHWs in implementing behavioral interventions among patients with conflict-related psychological distress. Initially, 346 participants were randomly assigned to an intervention or a control group. The control group received enhanced
usual care, which involved at least one visit with a primary care physician who had received a
five-day training course on mental health topics. The control group also had the option for repeat
consultations with their providers. In the intervention group, CHWs held five weekly behavioral
management sessions with participants. Rahman et al. found that, compared to the control group,
patients in the intervention cohort had significantly lower scores of depression, anxiety,
posttraumatic stress, and functional impairment. Similarly, findings from an RCT, set in
Zimbabwe and included 573 participants, demonstrated that CHW-led behavioral interventions
for depression and anxiety achieved greater symptom control than standards of care delivered by
health professionals (Chibanda et al., 2016). In this study, standard of care included nurse-led
evaluation of participants, health education about their condition, referral to a psychiatric facility
if necessary, and assessment for antidepressant medication.

**CHWs in Chronic Disease Management**

CHWs can also facilitate lifestyle changes for the prevention and management of chronic
diseases. In Pakistan, researchers reported that CHWs successfully implemented lifestyle
interventions to control hypertension in children and young adults (Jafar et al., 2010). In this
study, 4023 participants were assigned to either an intervention group or a control group. While
the control group received basic standard of care (which included management of hypertension
by trained professionals during scheduled office visits), CHWs delivered six weeks of family-
based lifestyle education to participants enrolled in the intervention. Findings from this study
demonstrated that the intervention group had a significantly more positive change in blood
pressure when compared to the control group.

Similarly, CHWs have demonstrated the ability to help people living with diabetes
successfully manage their blood glucose levels. In one study, CHWs in India provided health
education as part of a diabetes prevention and management program (Balagopal, Kamalamma, Patel, & Misra, 2012). Findings demonstrated that, among 1638 rural participants, the intervention reduced mean blood glucose levels by 5.7 and 14.9 mg/dL for those living with pre-diabetes and diabetes respectively. Additionally, mean systolic blood pressure decreased by an average of 8 mmHg.

Studies have also demonstrated that CHWs can successfully facilitate cardiovascular risk factor modification. For example, Pakistani CHWs provided behavioral support therapy for 640 tuberculosis patients who were trying to quit smoking (Siddiqi et al., 2013). Of these patients, 41% achieved sustained smoking abstinence. In the control group, which did not receive behavioral support, only 8.5% of participants achieved long-term smoking cessation.

**CHW Health Interventions in Caribbean and Latin American Settings**

Considering the methodologic strength of RCTs (Polit & Beck, 2017), it is notable that many of the studies reviewed above were RCTs. Also of note is that few of those RCTs were conducted in Caribbean or Latin American settings. Indeed, there is a paucity of research that investigated CHW-led health interventions in the LMICs of Latin America and the Caribbean. As a notable exception, a study found that CHWs in Mexico could effectively deliver a health education program designed to prevent chronic disease (Denman et al., 2015). This study surveyed 152 participants, most of whom reported healthier eating habits and better self-rated health after participating in the CHW-led intervention. Within the context of chronic disease prevention/management, He et al. (2017) used an RCT to investigate the impact of a CHW-led initiative on blood pressure control in low-income Argentinians. Between 2013 and 2015, a total of 1357 patients with uncontrolled hypertension participated in either a control group receiving usual care or a home-based intervention led by CHWs. Findings from the study demonstrated the
intervention group had a more significant improvement in blood pressure after 18 months of monitoring when compared to the control group. However, the intervention also included additional, non-CHW components, and so the extent to which CHWs contributed to the results could not be fully assessed.

**CHW Cost Effectiveness**

Based on the articles reviewed, CHWs have the potential to provide appropriate care across diverse contexts and settings. Still, while improved patient outcomes are a key consideration for CHW programs, cost effectiveness is another area in which many CHW programs are evaluated.

Shifting health care-related tasks to CHWs has become an increasingly popular strategy for reducing costs and improving efficiency in health systems (Seidman & Atun, 2017). CHW-led health programs have proven to be cost-effective in addressing a number of health issues, including hypertension (Gaziano, Bertram, Tollman, & Hofman), HIV/AIDS (Bango et al., 2016), malaria (Hansen, Ndyomugyenyi, Magnussen, Lal, & Clarke, 2017), mental health disorders (Buttorff et al., 2012), malnutrition (Puett et al., 2013), and basic primary care needs (McPake et al., 2015). Vaughan, Kok, Witter, and Dieleman (2015) reviewed 32 primary studies and four literature reviews published from 2003-2015 that examined cost-effectiveness of CHW programs. Findings from most of these studies indicated that CHWs could provide interventions that were more cost effective than standard medical care. Of note, all but one the studies reviewed by Vaughan and colleagues were conducted in African and Asian countries; only one study was conducted within a Latin American setting, that of Brazil.

A notable, multi-site study of CHW cost-effectiveness was conducted by McPake et al. (2015), who used incremental cost-effectiveness ratios to assess CHW programs in Ethiopia,
India, and Kenya. Each of the three programs included in the study were primary care models, in which CHWs were used to extend basic services to underserved communities. The effectiveness of CHW-interventions was measured using the Lives Saved Tool (LiST), which is an instrument that estimates the number of lives saved due to specific health interventions. The LiST measures outcomes by examining maternal mortality, neonatal and child mortality, birth outcomes, and nutritional outcomes, such as the incidence of anemia and growth stunting in children (John Hopkins Bloomberg School of Public health, n.d.). Using the LiST, the researchers estimated the number of lives saved due to CHW programs that provided coverage for maternal, neonatal, and child health care. Cost-effectiveness was analyzed from a governmental perspective, using start-up and recurrent expenses, as well as estimated overhead costs for each program. McPake et al. collected cost data from a variety of sources including payroll records, key informant interviews, expense records, and supply catalogues. The researchers also performed sensitivity analyses for each of the programs reviewed. Sensitivity analyses are a type of statistical strategy that is used to evaluate the uncertainty of the assumptions of cost-effectiveness analyses (Jain, Grabner, & Onukwugha, 2011). Based on the results of their analyses, McPake et al. concluded that each of the programs offered was not only cost-effective, but also provided significant benefit to the communities they served by extending coverage of basic health services. The researchers reported a significant increase in the number of lives saved after program implementation. The incremental costs-per-life-year gained, estimated in international dollars, were $82 for Kenya, $999 for Ethiopia, and $3,396 in Indonesia. Based upon gross domestic product per capita as a willingness-to-pay threshold, the researchers concluded that the benefits of the programs exceeded their overall implementation costs.
Discussion of CHW-Led Health Interventions

Based upon the literature reviewed, CHW programs have the potential to provide appropriate, cost-saving care in LMICs. While the quality of some studies was lacking (Gilmore & McAuliffe, 2013; Chibanda et al., 2015), a number of RCTs have demonstrated short-term success of CHW interventions across several settings and contexts. Still, it is important to consider who actually benefits financially from task-shifting health care to CHWs. For example, Hampshire et al. (2017) found that CHWs in Ghana and Malawi were using personal cellphones to implement mobile health initiatives. In this case, task-shifting created a financial burden for CHWs. Stone and Parham (2007) argued that measures must be taken to ensure that CHWs do not assume undue burdens from their work. Mundeva et al. (2018) called for research that could illuminate CHW needs and inform strategies to engage CHWs in local decision-making processes. In their study of CHW cost-effectiveness, McPake et al. (2015) acknowledged that their analysis was based on a governmental perspective, which might not have fully captured the societal costs and/or societal benefits of the CHW programs they studied.

Additionally, questions also remain about the overall sustainability of CHWs programs. Most of the studies reviewed above were limited to lengths of 3-12 months, and none lasted greater than 18 months. Consequently, these studies do not provide evidence of the long-term sustainability of CHWs. Also, most studies were conducted in African and Asian settings, and so less is known about CHW programs in the LMICs of the western hemisphere. Furthermore, Alam, Khan, and Walker (2012) noted that high rates of CHW attrition can confound the cost-effectiveness of CHW programs, due to the added expense of training replacement CHWs. Nance et al. (2012) suggested that how CHW programs are implemented can influence their outcomes. According to de Vries and Pool (2017), sustainability of CHW programs in LMICs
has not been achieved, and more research is needed to examine community-level influences that
could impact CHW success. Accordingly, if communities are to enjoy lasting benefit from CHW
programs, it is important to consider factors that facilitate or impede long-term survival of CHW
initiatives.

**Challenges to the Success of CHW Programs in LMICs**

Although a significant body of evidence exists that supports the short-term benefits of
CHW models, very few studies have addressed long-term sustainability. As noted, interest in
CHWs waned in the 1990s due to problems sustaining the work of such groups (Perry et al.,
2014). Kahssay, Taylor, and Berman (1998) suggested that the most important issue now facing
CHWs is not a question of effectiveness, but how to realize their full potential. With respect to
CHW program longevity, Pallas et al. (2013) conducted a literature review to identify factors
impacting sustainability of CHWs working in LMICs. Through the review, Pallas et al. identified
19 articles that addressed sustainability and scale-up of CHW programs. From these articles, the
researchers identified factors that enabled and obstructed long-term success and expansion of
CHW programs. Enabling factors included intensive CHW training, consistent management,
flexible schedules, regular feedback on performance, a mechanism for role advancement,
remuneration in the form of a salary or stipend, and an appropriate fit between CHWs and their
communities. Barriers to sustainability included poor community support, elevated stress levels,
low morale, lack of supplies, poor family support, lack of respect, poor training, and inadequate
incentives.

Additionally, past studies suggest that CHWs experience work-related stress that can
negatively impact their performance and retention (Akintola et al., 2013; Gau et al., 2013a; Gau,
et al., 2013b; Mundeva et al., 2018; Van Dyk, 2007). Findings from a mixed-methods study of
50 South African CHWs working in HIV/AIDS care reported that participants experienced significant levels of depression and emotional fatigue arising from their work (Visser & Mabota, 2015). Similarly, another study of 126 South African CHWs providing care for people living with HIV/AIDS reported that participants experienced moderate-to-high levels of both stress and burnout (Akintola et al., 2013). Factors contributing to high stress in these participants included role overload and a lack of perceived support (Akintola et al., 2013).

Adequate support is essential to enhancing CHW performance and retention, which includes training, material supplies, financial incentives, and collaborative supervision (Buehler, Ruggiero, & Mehta, 2013; Lunsford, Fatta, Stover, & Shrestha, 2015; Mays et al., 2017; Puchalski Ritchie et al., 2012; Vasan, Mabey, Chaudhri, Epstein, & Lawn, 2017). Conversely, lack of support—from communities, families, and/or the public health system—has been implicated in high CHW attrition rates (Nkonki et al., 2011).

**Material and Monetary Barriers Encountered by CHWs**

While poor retention of CHWs has been linked to several issues, arguably the most reported factor is lack of remuneration. Studies that have explored CHW perceptions of incentives found that financial and/or material compensation can be a significant motivator (Brunie et al., 2014; Kironde & Klaasen, 2002; Topp et al. 2015). Conversely, lack of remuneration can demotivate CHWs. To illustrate, Mays et al. (2017) conducted a mixed-methods study in rural Uganda to identify factors that influenced CHWs intentions to remain in their volunteer role for at least 10 years. Quantitative data were collected from 134 CHWs using a standardized 29-item survey that had been piloted previously by the researchers. Findings revealed that 43% of participating CHWs did not plan to remain in their volunteer role for the next 10 years. Sixty-two percent of these CHWs stated that monthly financial compensation...
would allow them to do so. Other participants who intended to leave their roles stated that a transportation stipend or material supplies such as boots or bicycles would allow them to continue working as CHWs for 10 years or more (Mays et al., 2017).

Although financial incentives can offer significant motivation, they also have the potential to negatively impact CHW programs. Glenton et al. (2010) reported that key stakeholders in a Nepalese CHW program felt that consistent financial incentives were not feasible and could jeopardize community respect for CHWs. In a qualitative study of factors motivating CHWs in Papua New Guinea to provide malaria diagnosis and treatment, Burkot, Naidi, Seehofer, and Miles (2017) found that—while participants valued monetary compensation for their CHW activities—the level of compensation often fell short of expectations. Some participants reported that financial incentives were not equitable, given the resources of the organization sponsoring their work. Other participants felt that they did the bulk of the work while the sponsoring organization enjoyed most of the financial benefits, as well as the public accolades for the program’s success. Also, like the findings by Glenton et al. (2010), some participants reported that community support and respect for the CHWs was undermined by the incentives, as the community began to believe the CHWs were motivated mainly from a desire to make money. Given the challenges that arise from offering formal incentives, the researchers concluded that such inducements must be carefully planned and tailored to the unique situations of the programs in which they are being offered.

**Knowledge Barriers Encountered by CHWs**

Lack of formal training and inadequate knowledge of health issues are additional challenges faced by CHWs. McDermott-Levy and Weatherbie (2013) conducted a qualitative, descriptive study to investigate the perceptions and self-identified needs of a group of 13 CHWs...
A key characteristic of CHWs is that they are members of the communities in which they work (Bender & Pitkin, 1987). Community health workers are often motivated by social factors such as community recognition, respect, a sense of social responsibility to help others, and a desire to make a difference in the community (Dil et al., 2012; Li et al., 2014; Gopalan, Mohanty, & Das, 2012; Greenspan et al., 2013; McDermott-Levy & Weatherbie, 2013). Conversely, negative community attitudes or poor treatment of CHWs by community residents can demoralize CHWs and contribute to program failure (Pallas et al, 2013). To illustrate, Olang’o et al. (2010) examined causes of attrition among CHWs working in home-based HIV/AIDS care. Using an ethnographic approach, the researchers explored the experiences of 30
Kenyan CHWs. While some participants reported leaving their CHW positions due to financial reasons, many gave other explanations. Some participants found that community residents expected CHWs to provide them with food and medicine. Community health workers were sometimes rejected by their patients because they did not provide the support they felt was needed. Still others cited a lack of NGO support as a reason, while others blamed the condescending attitudes of NGO staff who sometimes treated CHWs unfairly (Olang’o et al., 2010). Some of the CHWs held official positions within the program, which created an undesirable hierarchy of power within the CHW framework. All of these factors contributed to demotivation of CHWs, many of whom ultimately left their positions (Olang’o et al, 2010). Similarly, a study of 28 CHWs providing community-based disease surveillance in Ghana reported several factors that demotivated CHWs (Dil et al., 2012). For example, CHWs sometimes became discouraged when community members did not participate in health campaigns or failed to follow referral instructions (Dil et al., 2012). Additionally, some community members believed that CHWs were being paid, a misconception that diminished respect for the CHWs.

A common finding in studies was that CHWs desire support and respect from their communities (Dil et al., 2012; Olang’o et al., 2010). Depending on circumstances, a number of things could constitute such support. Recognition by community leaders was found to be particularly important. Li et al. (2014) reported a significant link between such recognition and job satisfaction among CHWs working in China. Similarly, findings from a study in Nicaragua reported that CHWs desired greater collaboration between themselves and community leaders (McDermott-Levy & Weatherbie, 2012).
Programmatic Barriers Encountered by CHWs

The manner in which CHW programs are designed and managed can also create significant challenges for CHW sustainability (Najafizada, Labonté, & Bourgeault, 2017; Edwards & Roelofs, 2006; van Ginneken et al., 2010). Supervisors who lack understanding of CHWs and the nature of community-based initiatives have been implicated as a barrier to CHW programs (Edwards & Roelofs, 2006; Gilson et al., 1989; van Ginneken et al., 2010). For example, Chinese health professionals offering education to CHWs struggled with the community-based and learner-centered design that one program used to structure CHW training (Edwards & Roelofs, 2006). In another case, CHW supervisors in Botswana burdened CHWs with unrealistic workloads, which hindered their work in the community (Gilson et al., 1989).

The success of CHWs is strongly influenced by the extent to which they are integrated within the larger health care system (Lehmann & Sanders, 2007; Mundeva et al., 2018). In Brazil, barriers identified by 69 CHWs included failure to be recognized as full members of the primary care team (Grossman-Kahn et al., 2017). Without formal status, CHWs were often left out of decision-making processes, which made CHWs feel devalued (Grossman-Kahn et al., 2017). In South Africa, a study by De Neve et al. (2017) found that barriers to CHW programs included inconsistent integration within the formal health care system, as well as NGO-supported CHWs who operated outside of the public health system all together.

Discussion of Challenges to CHW Success and Sustainability

According to Topp et al. (2015), successful CHW programs must consider the social and environmental contexts in which CHWs operate and must adapt to the specific situations and realities that arise from those contexts. CHWs operating in LMICs often work as volunteers and frequently lack the necessary training and material resources for their duties. In addition, work-
related burdens and inadequate community and/or organizational support are major impediments to CHW sustainability. Social support and recognition appear to be essential to CHW success, and the lack of either one may erode CHW motivation. Furthermore, CHWs are inadequately supported when they lack the respect, autonomy, knowledge, skills, and materials necessary to fulfill their duties as community-level health providers. Given the extent to which context influences the CHW experience, it is important to consider broader social and environmental factors that support or impede the efforts of local CHWs. Consequently, the following section will provide a closer look at the D.R., which was the context of this study.

**The Dominican Republic and CHWs**

As previously noted, much of what is known about CHWs in LMICs has come from research in African and Asian contexts. Far less is known about the experiences of CHWs working in Latin American and Caribbean communities. Before discussing CHW-related research in the D.R., it is necessary to first provide an overview of the country, its history, and its health care system, all of which are relevant for understanding the context in which this study was conducted.

**An Overview of the Dominican Republic**

The D.R. occupies two-thirds of the Caribbean island of Hispaniola, which the country shares with Republic of Haiti (Central Intelligence Agency, 2018). The island’s climate is tropical, characterized by warm temperatures year-round and abundant rainfall that is driven by north-eastern trade winds that blow off the Caribbean Sea from November through March (CIA, 2018). The country is in an area frequently impacted by hurricanes and earthquakes, and these natural disasters have periodically marked the nation’s history (Moya Pons, 2010).
Politically, the D.R. is divided into 31 provinces and the National District of Santo Domingo (Nations Online, 2018). The government of the D.R. is a representative democracy, with an executive, legislative, and judicial branch (Misachi, 2017; Moya Pons, 2010). An elected president—currently Danilo Medina—serves as the head of state and the Commander-in-Chief of the country’s military. Spanish is the country’s primary language, and some have characterized the D.R. as more a part of Latin America than the Caribbean (Moya Pons, 2010). Nevertheless, many residents speak Haitian Creole, which reflects the strong multiculturalism of D.R. society (Moya Pons, 2010; Pollack, 2011; Roorda, Derby, & González, 2014).

**Early History of the Dominican Republic**

The original inhabitants of Hispaniola were the Taíno tribe, a people who migrated from what is now modern Venezuela (Moya Pons, 2010). The recorded history of the D.R. began when the navigator Christopher Columbus—flying under the Spanish flag—landed on Dominican shores in December of 1492 (CIA, 2018). Here, the Spanish established Santo Domingo, their first permanent colony in the Americas (Moya Pons, 2010; Roorda, et al. 2014). Columbus’s arrival represented the earliest foreign invasion of the D.R., which was subsequently subjugated to further conquest and conflict between French, Spanish, British, and Haitian forces throughout the seventeenth and eighteenth centuries (Moya Pons, 2010; Roorda et al., 2014). During these years, most of native Taíno people were slaughtered in battles with the Spanish. The Spanish also introduced the African slave trade to the island in order to provide labor for emerging industries such as sugar cane farming and gold mining (Moya Pons, 2018). A significant number of slaves revolted, fleeing into the Bahoruco Mountains, from which they periodically staged guerilla-like attacks on Spanish towns and plantations (Roorda et al., 2014). The interactions between African, European, and Native peoples set the stage not only for the
diversity of contemporary Dominican culture, but also contributed to a societal hierarchy strongly based on race (Pollack, 2011).

Piracy, wars, and the establishment of competing trade companies eventually decimated the Spanish colony’s economy. Hispaniola briefly became unified in 1822 when Haiti, now the first independent black republic in the Caribbean, invaded the Spanish side of Hispaniola (Moya Pons, 2010). Haitian rule was overthrown in 1844, when the D.R. declared its independence as a new republic (Moya Pons, 2010). The people of the nascent nation were a mix of Spanish, African, French, and Native blood, and this genetic and ethnic diversity characterizes the country’s contemporary population (Pollack, 2011).

**U.S.A. Involvement in the Dominican Republic**

European countries were not alone in their attempts to dominate the land now known as the D.R. As a growing political and economic power, the U.S.A. exerted considerable influence over the D.R. throughout the nineteenth and twentieth centuries (Moya Pons, 2010). During these years, the U.S.A. made significant investments in the D.R.’s sugar industry, which increased U.S.A. interest in the country (Moya Pons, 2010). In addition, the country’s location held strategic military advantage for the U.S.A. In 1869, in an effort to secure U.S.A. political and economic interests in the Caribbean and Latin America, U.S.A. president Ulysses S. Grant proposed a treaty that would annex the D.R. as a U.S. territory. Buenaventura Báez, the Dominican president at the time, supported annexation, although many of the D.R.’s citizens opposed the move (Moya Pons, 2010; Roorda et al., 2014). Ultimately, the proposal failed to pass the U.S.A. senate, but U.S.A. interest in the D.R. persisted.

Later, growing conflict between Haiti and the D.R. led to a second U.S.A. invasion in 1916, this time under orders from President Woodrow Wilson (Roorda et al, 2014). Wilson
sought to stabilize the region to ensure that outstanding Dominican debts to the U.S.A. could be paid. The U.S.A. occupation of the D.R. lasted from 1916 to 1924.

The political vacuum created by U.S.A. withdrawal contributed to the rise of President Rafael Leonida Trujillo Molina, who served as the president of the D.R. from 1930-1961 and who is considered by many to be one of the most brutal dictators in Latin American history (Moya Pons, 2010; Roorda et al., 2014). During his reign, the U.S.A.-backed Trujillo fueled growing Dominican racism against Haitians and black Dominicans, developing a policy known as antihaitianismo, or anti-Haitianism (Gregory, 2006; Moya Pons, 2018; Roorda et al., 2014). Under Trujillo, nearly 40,000 Haitians living in the D.R. were slaughtered under the pretense that they were working against Trujillo’s government (Gregory, 2006). Trujillo himself was eventually assassinated, an act that triggered instability in the D.R. and led to a third U.S.A. occupation from 1965-1966 (Moya Pons, 2010).

Since 1966, the D.R.’s government has undergone a mainly peaceful transition to a democratic republic. The country has seen a recent and rapid growth in its economy, particularly with the rise of the tourist industry (Gregory, 2006). The U.S.A. continues to maintain its interests in the country, sending the D.R. a significant amount of annual foreign aid. Additionally, U.S.A. citizens comprise the largest number of tourists visiting the D.R. each year (Gregory, 2006).

**The Dominican Republic Today**

The World Bank (2018) currently classifies the D.R. as a middle-income country with a Gross National Income (GNI) per capita of $6,390 U.S. dollars and a Gross Domestic Product (GDP) of 72.3 billion U.S. dollars. The D.R. experienced considerable economic growth over the past two decades, primarily due to increased tourism (Gregory, 2006). However, there is
significant inequality in the distribution of wealth in the D.R., and this inequality has remained consistent over the past several decades. According to Rathe (2010), lower class Dominican families only receive 4% of the country’s income. Gregory (2006) argued that the lucrative tourist industry has provided few jobs for poorer Dominicans, who often lack the skills required to work in the formal tourism sector. Although there are unskilled positions available in the tourist industry (for example, security and housekeeping positions), these are typically low-paying jobs that do not provide a livable wage (Gregory, 2006). Furthermore, Ripton (2013) noted that while the Dominican government finances roads and other projects for the growing tourist industry, it does so at the expense of critical public health infrastructures. For example, in the area known as Las Terrenas, the government committed significant funding for multiple projects related to the tourist industry, including improved sidewalks, new roads, and a new control tower in a nearby airport to manage the increase in international flights. Conversely, local physicians reported that the public health care system in the area was poorly organized and lacked resources to provide adequate health care to the people of Las Terrenas.

At times, tourism in the D.R. has also disrupted natural eco-systems and contributed to growing environmental health concerns (Ripton, 2013). Within the context of health and health care, environmental issues arising from the D.R.’s expanding tourist economy are particularly relevant, as they directly impact the well-being of the D.R.’s citizens. For example, the tourist industry has contributed to increased air pollution, contamination of water supplies, and growing health issues associated with drug use and sex work (Ripton, 2013).

Additionally, Trujillo’s policy of antihaitismo has persisted in D.R. society (Gregory, 2006; Pollack, 2011). Discrimination against people of Haitian descent living in the D.R. has contributed to a social hierarchy based largely on race (Gregory, 2006; Matibag & Downing-
Matibag, 2011). Haitians make up a large portion of the D.R.’s workforce but are often targets of racism and periodic deportation (Matibag & Downing-Matibag, 2011). In 2013, a controversial court decision made Dominican citizenship contingent upon the legal status of a person’s parents. Before this ruling, persons born in the D.R. were automatically granted citizenship. The ruling applied to all persons born to foreign parents since 1929, an act that rescinded citizenship for approximately 200,000 persons currently living in the D.R. Specific to health, these persons are now excluded from full participation in the public health care system (Hannam, 2014).

**Health and Health Care System in the Dominican Republic**

Within the context of health, the D.R. is currently experiencing an epidemiologic transition, characterized by declining prevalence of infectious disease and rising incidences of chronic, non-communicable illnesses such as diabetes, heart failure, and cerebrovascular accident (Pan American Health Organization [PAHO], 2017; Rathe, 2010). Public health initiatives targeting diseases such as schistosomiasis, leprosy, and malaria, have led to significant reductions in morbidity and mortality related to these illnesses (PAHO, 2017b).

However, not all outcomes related to infectious disease are improving. For example, between 2015 and 2017, the rate of new HIV infections in the D.R. has risen from 15.6 to 37.0 per 100,000 persons, while tuberculosis incidence in the country has remained at a mainly consistent rate of 42 per 100,000 persons between 2012 and 2018 (Center for Disease Control [CDC], 2019; PAHO, 2018). Additionally, significant gaps in infectious disease prevalence exist between socioeconomic groups. For example, the D.R.’s poorest populations, particularly those who are migrants, have TB infection rates 20 times greater than that of the general population (PAHO, 2017b). Furthermore, outbreaks of infectious diseases such as cholera and dengue fever disproportionately affect the poorer citizens of the D. R., who often lack the resources and
knowledge for disease prevention (Lund et al., 2015; Veras-Estévez, Bienvenido, & Chapman, 2017). Higher incidences of infectious diseases among poor Dominicans are exacerbated by inadequate access to clean water and sanitation systems. An estimated 45% of the poorest quintile of the D.R.’s population lacks a reliable source of potable water (PAHO, 2012). Much of the country’s solid waste is disposed of in open-air dumps, which are often located near poor communities and their water sources (PAHO, 2012). Contaminated water and poor sanitation contribute to diseases such as hepatitis, cholera, typhoid, and bacterial enteritis.

Considering non-communicable illnesses in the D.R., there is a growing prevalence of chronic diseases and their associated risk factors. In 2016, 35% of deaths in the D.R. were from cardiovascular illnesses (WHO, 2018b). The prevalence of diabetes, a condition commonly associated with cardiovascular illness, has risen from approximately 5% to 10% since 1980 (WHO, 2016b). The D.R. also has one of the highest rates of mortality from cerebrovascular accident in Latin America and the Caribbean (PAHO, 2018). According to Acosta et al. (2010), the prevalence of cardiovascular risk factors—such as hypertension, diabetes, and obesity— in some regions of the D.R. is nearing or exceeding the rates seen in the U.S.A., a country known for its high prevalence of heart disease. The researchers noted that high fat diets, cigarette smoking, and sedentary lifestyles appear to be driving the increase in these cardiovascular risk factors. Rates of obesity have also increased steadily in the D.R. since 2000; a trend that is expected to continue (WHO, 2018b).

The Dominican Health Care System

Mirroring its economic growth, the D.R.’s health care system has experienced radical changes over the past two decades. In 2001, the Dominican government enacted sweeping reforms, transforming a fragmented public health care system into an integrated social security
system guided by principles of equity and universal health care coverage (USAID & PAHO, 2007). To accomplish this ambitious goal, the Dominican government passed two important laws. The General Health Law (Law 42-01) grants the State the powers necessary to safeguard the right to health, while Law 87-01 established the Dominican Social Security System (USAID & PAHO, 2007). The new legislation mandated changes to the structure of the National Health System by dividing it into separate institutions that provide necessary supervisory, financing, coordination, and provision functions (USAID & PAHO, 2007). Additionally, under the new laws, the financing of health care became public and mandatory (Rathe 2010). Funding for the new system is achieved via three financing regimes. According to Rathe (2010), these regimes are structured as follows:

1. The **contributive regime** receives mandatory contributions from employers and workers. Individuals contribute 3% of their salaries while employers (including the state) provide an amount equivalent to 7% of their employees’ salaries.

2. The **subsidized regime** constitutes financing for those workers who are self-employed with erratic incomes that are below the country’s minimum wage. The subsidized regime also includes those who are disabled or unemployed. The state wholly provides financing for the subsidized regime.

3. The **contributive subsidized regime** covers individuals who are self-employed with incomes higher than the national minimum wage. Under this regime, self-employed workers contribute 3% of their total income, and the State provides a subsidy of 7% of that total income.

With respect to service delivery, there are three levels of care in the D.R. health system. The first level of care consists of health clinics, medication dispensaries, and primary care
offices. The second level of care includes municipal and provincial hospitals that serve patients with general health issues. The third level of care encompasses regional and specialty hospitals where patients with complex health needs receive more advanced, specialized health care (USAID & PAHO, 2007). Currently, there are 1,445 health clinics, 1,774 primary care units, 13 regional hospitals, 35 provincial hospitals, 122 municipal hospitals, and 19 national referral hospitals (PAHO, 2018).

While Dominican health care reform has led to considerable improvements in health outcomes over the past decade, significant health issues persist (PAHO, 2017b). According to Rathe (2010), poor governance and conflicts of interest between public and private stakeholders have plagued Dominican health care reform, and so many of the country’s poorest citizens still lack access to appropriate and adequate health care. The expansion of the D.R.’s health system has not necessarily been matched by an increase in the quality of care delivered. Although the country’s health care system ostensibly provides coverage for all the D.R.’s citizens, access to quality of care has been called into question. Lack of money and transportation are significant barriers to health care access, particularly for rural residents, older adults, and women (Rathe, 2010). From a quality of care perspective, while 99% of Dominican births take place in health centers, maternal mortality ratios remain high at 90 deaths per 100,000 live births (PAHO, 2018). Rathe attributed increased maternal mortality to the poor quality of care received as well as inconsistent pre-natal care. In comparison, the overall maternal mortality ratio for Latin America and the Caribbean as a whole is 58 deaths per 100,000 live births (PAHO, 2018). Furthermore, while there appears to be an adequate number of health care facilities throughout the country, the health care workforce is not evenly distributed, nor are there adequate numbers of specific health professionals (PAHO, 2018; USAID & PAHO, 2007).
Additionally, the new health care laws passed by the Dominican government do not apply to all persons currently living in the country. Leventhal (2013) noted that the significant number of Haitian immigrants currently living in the D.R. are excluded from participation in the public health care system. Many of these immigrants live in impoverished conditions, without the money, health insurance, or transportation necessary to access health care (Miller et al., 2016). Commenting on health care access in the D.R., one migrant Haitian woman stated, “without money you cannot get healthcare, only God can help somebody” (Leventhal, 2013, p. 1249). Miller et al. (2016) noted that limited access to electricity and potable water, high out-of-pocket costs, and discriminatory attitudes of health care workers impede Haitian migrants’ access to health care in the D.R.

**CHWs in the Dominican Republic**

Given the D.R.’s shortage of nurses and other health professionals, it is not surprising that some Dominican communities use CHWs to complement local health providers (Health Horizons International [HHI], 2018). Unlike countries such as China, Brazil and Nicaragua, the D.R. does not appear to have fully integrated a formal CHW model within the public health care system (PAHO, 2007; Rathe, 2010). Instead, Dominican CHWs often work with humanitarian groups or foreign-based NGOs (HHI, 2018). Nevertheless, Hoyos and Gonzalez (2011) noted the Dominican government has used at times used CHWs to provide community level health promotion programs at some rural health centers.

**CHW-led health interventions in the Dominican Republic.** While reviewing the literature, I located few studies that explored the sustainability of Dominican CHWs. Moreover, I found no past research that investigated the perspectives and experiences of these health workers. In one study of CHW effectiveness, Bonnell et al. (2018) trained eight Dominican CHWs to
perform basic health assessments of pregnant women. The CHWs were then taught via a two-day workshop how to use a mobile phone application to enter patient assessment data. Using the application, CHWs uploaded physical and mental assessment findings (including maternal weight, blood glucose levels, urinalysis) to a scalable cloud service. The researchers noted that the application service allowed data collection, visualization, and a mapping function. Physicians then used the uploaded information to identify high-risk patients. During the study, the CHWs worked with 52 women, 38 of which were followed through delivery. The use of mobile assessment technology allowed CHWs to provide urgent care for two patients experiencing antenatal complications. Additionally, among the women and infants followed by the CHWs, there were no deaths or reports of significant morbidity. The researchers concluded that training CHWs in mobile technologies is a feasible way to improve maternal-child health outcomes in the D.R.

Similarly, Foster et al. (2015) conducted a pilot study to explore how maternal-child health outcomes could be improved using a community-based participatory approach. The researchers partnered with Dominican nurses and CHWs to implement a program of six home health visits for 31 women and their newborns living in two Dominican communities. There was a total of three prenatal and three postpartum visits, all of which were conducted by either a nurse or CHW. Results from the study revealed that participant adherence to prescribed medications rose from 88% to 100% between the first and third home visit (Foster et al, 2015). Two neonatal deaths occurred, one from a congenital anomaly and one due to premature birth. One maternal death was prevented. Visiting nurses and CHWs also identified 12 umbilical cord infections, which were then treated accordingly (Foster et al, 2015). The researchers concluded
that partnerships between health care professionals and CHWs can improve health care services in the D.R.

**The Experiences of Dominican CHWs.** While there are studies that have explored effectiveness of health interventions implemented by Dominican CHWs (Foster et al., 2015; Bonnell et al., 2018), much less is known about the actual viewpoints and experiences of these health workers. No studies to date have investigated factors that might contribute to long-term sustainability of CHW programs in the D.R. Furthermore, I could not identify previous research that explored the experiences of Dominican CHWs from their own perspectives. What challenges do Dominican CHWs face? How do they view their work? What factors support and sustain them? To the best of my knowledge, no past studies have sought to answer these questions. Consequently, I propose that this identified research gap supports the need for a study investigating the experiences of Dominican CHWs.

**Theoretical Frameworks**

A review of past CHW-related research revealed a lack of theory-driven studies; most of the articles I examined did not explicitly identify a guiding theoretical framework. However, several researchers did use specific theories to guide studies of CHWs (Kane et al., 2016; Mlotshwa, Harris, Schneider, & Moshabela, 2015; Squires and O’Brien, 2012; Sarin & Lunsford, 2017; Strachen, et al., 2015). The theoretical frameworks previously employed include SCT, role theory, motivational theory, and empowerment theory.

What follows is a discussion of three theories that I used to guide the study, including how researchers have used them to inform past research about CHWs. I also provide an overview of alternative theoretical frameworks that I could have chosen to frame my research, including my reasons for not doing so.
Social Cognitive Theory

SCT is one framework that has been used previously to guide CHW research. Emerging from social learning theory, SCT provides a model with which to examine human behavior (Bandura, 1986). Through SCT, behavior is explained as a dynamic, reciprocal process by which a person’s environment, personal factors (such as knowledge and beliefs), and behavior exist in a state of constant interaction (Bandura, 1986). This three-way interaction model is known as reciprocal determinism, and is the central concept of SCT (Bandura, 1986). According to the principle of reciprocal determinism, change in one of the three elements (environment, personal factors, or behavior) will lead to changes in the other two dimensions. Based on this model, humans are neither fully autonomous agents, nor are they simply mechanical reactors to environmental stimuli (Bandura, 1989). Instead, human actions manifest under the influence of both environmental and personal determinants (Bandura, 1989).

SCT also includes the constructs of observational learning and self-efficacy. Observational learning explains how people can model the witnessed behaviors of others, while self-efficacy refers to a person’s belief in their ability to be successful at a given behavior (Bandura, 1986). Self-efficacy is influenced by the three concepts of reciprocal determinism.

Social cognitive theory and CHW research. A study by Sarin and Lunsford (2017) used Bandura’s theory of reciprocal determinism to explore environmental factors that facilitated or obstructed the ability of CHWs to provide maternal-child care in rural Indian. The researchers used semi-structured interviews with 49 CHWs and their family members to collect data. Analysis of these data revealed patterns that were then explained using the framework of reciprocal determinism. Self-efficacy was used as a measure of the personal/cognitive dimension of participants. The researchers found that participants gained greater self-efficacy through their
work and interactions with the community and their own families. Greater self-efficacy allowed participants to perform better in their roles as CHWs, which positively affected their communities, and consequently led to further increases in participant self-efficacy.

**Implications of SCT for this study.** Reciprocal determinism, and the larger field of SCT, is an appropriate theory to examine how CHWs interact within their communities to influence local health outcomes. The reciprocal nature of the framework could facilitate a deep understanding of how individuals are transformed by working as CHWs and how their work can in turn transform communities. Furthermore, SCT could facilitate understanding of how personal characteristics of CHWs influence their behaviors and actions within the community environment. Given these advantages, I chose to use SCT to inform the conceptual framework of the proposed study.

Nevertheless, SCT had several limitations for the purpose of this study. First, SCT did not provide a theoretical basis for understanding the development of the social role of CHWs. Second, SCT did not help explain how people can use critical reflection and dialectical discourse to catalyze social change. Accordingly, it was important to consider other theories that might be able to complement SCT.

**Role Theory**

Given that CHWs exist to fulfill specific roles in their communities, role theory was a particularly appropriate choice to guide a study of how CHWs view their social position. According to Biddle (1979), people take on prescribed roles in society, and these roles are shaped by interactions between individuals and their communities. Banton (1996) described a role as “the expected behavior associated with a social position” (p. 749). While several approaches to role theory exist, Biddle identified five major concepts of role theory. These are:
1. Individuals exhibit patterned behavior within certain contexts, which form roles.
2. These roles are associated with groups of people, who share a common identity by occupying the same social position.
3. Individuals are usually aware of the roles they assume, and this awareness to some extent governs their actions.
4. Roles are sustained in part by their outcomes or functions, which are often integrated within a larger social system.
5. Roles must be learned via socialization, and the performance of one’s role may bring happiness or sorrow.

Roles are associated with behavioral patterns that are based on personal and societal expectations of a given role (Biddle, 1979). Consequently, human behaviors can be partly explained by the roles that individuals assume. Furthermore, roles also influence identity development, as individuals begin to associate themselves with the roles they take (McCall & Simmons, 1978).

Within the broader theoretical field, Biddle (1986) described a symbolic interactionist approach to role theory. From Biddle’s viewpoint of symbolic interactionism, roles evolve over time through interactions between individuals and their society. “Actual roles, then are thought to reflect norms, attitudes, contextual demands, negotiation, and the evolving definition of the situation as understood by the actors” (Biddle, 1986, p. 71). The symbolic interactionist approach to role theory acknowledges how personal perceptions of their role, as well as people negotiate that role within society, is critical for understanding role behavior.

**Role theory and CHW research.** Mlotshwa et al. (2015) used role theory to examine the perceptions and experiences of CHWs working in home-based care settings in rural South
Africa. As part of a larger 3-year study, Mlotshwa et al. collected data via semi-structured interviews with 18 CHWs in order to better understand how participants perceived their role. The researchers were particularly interested in discovering why participants became CHWs and what being a CHW meant to them. Data were interpreted via thematic content analysis. The dominant themes that emerged during data analysis were those of the 1) caring role, 2) insider role, and 3) broker role. Within the caring role, some CHWs described a calling or “destiny” to care for their neighbors. The insider role was associated with being part of the community in which the CHWs worked. Some participants stated that they understood the needs of the community because they were a part of it. Conversely, participants also described feeling like outsiders in their own community, a situation that arose from conflict between their duties to the public health sector and their allegiance to their fellow community members. Some participants described a feeling of “spying for the government” (Mlotshwa et al., 2015, p. 6). Ultimately, this conflict led to many CHWs assuming a broker role, in which the CHW became a link between their community and the public health sector. The broker role allowed CHWs to mediate health care access for their community members but was also limited by a lack of resources.

**Implications of role theory for this study.** The central concepts of role theory were directly applicable to the study I conducted, which sought to understand how CHWs working in the D.R. perceive their role in the community. CHWs fulfill a specific social role that is associated with expected behaviors. Based on the work of Biddle (1979), how CHWs perceive their role can influence how they behave in that role. Furthermore, how communities view the role of CHWs can also influence role expectations, and consequently, CHW behavior.

Still, the concepts of role theory did not allow for how non-social, environmental factors influence role behavior. Conversely, I felt that SCT could complement role theory by providing a
mechanism to understand how broader environmental influences impacted participants. Accordingly, I chose to synthesize SCT and role theory to inform the conceptual framework of the proposed study.

**Critical Pedagogy**

Together, SCT and role theory provide a strong theoretical framework from which to understand the experiences and perceptions of CHWs. Nevertheless, neither of these theories explained how individuals and groups can use deliberate reflection and critical discussion to catalyze actions to improve their life circumstances. Given the transformative aims of the study—as well as my own personal worldview—it was important to consider a theoretical orientation that could support the transformative nature of the study. Freire’s (1970/2018) theory of critical pedagogy served as one of the theoretical frameworks upon which Wang and Burris (1997) developed the photovoice technique. Critical pedagogy describes how oppressed groups can use purposeful reflection and dialectical discourse to achieve a deep understanding of social and political forces that influence their life situation (Freire, 1970/2018; Freire, 1974/2013). An objective and thorough understanding of current circumstances is a necessary first step toward solving problems and achieving social justice (Freire, 1970/2018).

Freire (1970/2018) characterized critical pedagogy by the process of *praxis*. Praxis is “reflection and action directed at the structures to be transformed” (Freire, 1970/2018, p. 126). Praxis is a cyclical process, in which people critically reflect on issues, discuss those issues, and then act upon them. Actions then lead to further reflection, discussion, and additional action.

**Application of critical pedagogy to CHW research.** After a thorough review of CHW-related research, I found no studies that explicitly used Freire’s (1970/2018) critical pedagogy to inform inquiry. Although some of the studies reviewed were conducted within the PAR tradition,
none explicitly mentioned Freire or critical pedagogy. Conversely, although not a research study, Shrestha (2003) created a model of CHW empowerment using Freire’s theory of empowerment education to inform its design. The model outlined a PAR approach to CHW training, one that begins by bringing CHWs together to discuss health issues important to the community. Shrestha argued that uniting CHWs to discuss a common problem could facilitate collective empowerment. Additionally, Shrestha proposed that discussing the problem would enable CHWs to develop a critical consciousness, which, according to Hur (2006), is an essential step in the process of empowerment. Shrestha’s model of CHW training alternates between implementing health interventions in the community and participating in educational activities designed to encourage learner participation and active reflection. This cycle has the potential to increase CHW competence and self-confidence, while also using group processes to empower CHWs through the formation of a collective identity (Shrestha, 2003).

**Implications of critical pedagogy for this study.** Given my personal worldview, which informed my choice to use a PAR approach, Freire’s theory of critical pedagogy aligned well with the transformative aims of this study. Critical pedagogy is congruent with my personal views of knowledge, which I consider to be shaped by power relationships and the existing social hierarchy (Creswell & Poth, 2018). From this standpoint, knowledge generated through research should be used to catalyze meaningful social change.

The purpose of photovoice is not only to facilitate knowledge development, but to use that knowledge to inform subsequent actions to solve problems and achieve social change (Wang & Burris, 1994; Wang & Burris, 1997). Critical pedagogy provides a basis from which to understand how photovoice can be used as a transformative process. Additionally, Wang and Burris (1997) developed photovoice as a way for researchers to engage with marginalized
groups, including grassroots community workers. Similarly, critical pedagogy is a theoretical approach that is concerned with the liberation of oppressed peoples. The need for CHWs in LMICs arises from inequities in national and international distribution of health care resources (Lehmann & Sanders, 2007), and so CHWs work within an environment characterized by inequity.

Still, critical pedagogy does not explicitly describe how social roles are created and maintained, nor does it delineate how human behaviors arise from interactions between personal and environmental factors. Therefore, I chose to use a synthesis of critical pedagogy, role theory, and SCT to inform the conceptual framework of this study.

Alternative Theoretical Frameworks

There were other theories that I could have used to guide exploration of CHW experiences. The most notable of these theoretical approaches were motivational theory and empowerment theory. What follows is a discussion of both frameworks, including how they have been used to guide past CHW research.

Motivational theory. Motivational theory can be helpful in understanding issues related to CHW recruitment and retention. For example, Kanfer and Heggestad’s (1999) theory of work motivation describes motivation as a function of the interplay between a person and their work situation. Based on the researchers’ findings, worker retention relies on the degree to which an employee’s needs are satisfied. Kanfer and Heggestad’s theory could be used to explore how specific factors motivate people to participate in CHW programs (Strachen et al., 2015).

Within CHW research, Strachan et al. (2015) explored barriers and facilitators to CHW motivation, retention, and performance in Uganda and Mozambique. The study, which included 50 CHW participants, was informed by a literature review of work motivation and CHW
motivation. From a theoretical perspective, the researchers noted that most work motivation theories have been developed in high-income settings, and therefore might rely on assumptions that are inappropriate in LMICs. Ultimately, the researchers decided to adopt the Social Identity Approach (SIA) to CHW motivation. The SIA describes how the personal identity of workers is influenced by working conditions, status, and recognition (Strachan et al., 2015; Turner & Reynolds, 2010). Strachan et al. (2015) proposed that SIA provided a strong framework on which to design interventions to support CHWs.

Strachan et al.’s (2015) concern about applying motivational theory in LMICs is significant. Additionally, I believe that the Social Identity Approach to motivation described by the researchers has significant overlap with both SCT and role theory. Accordingly, I saw no compelling benefit to choose motivational theory (including SIA) over any of the theories that I selected.

**Empowerment theory.** In addition to motivational theory, empowerment theory was another viable option that I considered to guide the proposed study. As a theoretical model, Zimmerman (2000) characterized empowerment as a framework through which researchers could explore the actions and consequences of people’s efforts to gain more control of their life circumstances. Empowering processes are actions, activities, and structures that give individuals and groups more influence over situations that impact their lives. Empowerment as an outcome is the result of processes that increase self-determination, competence, and self-efficacy (Lee & Koh, 2001; Hur, 2006; Zimmerman, 2000). According to Pick and Sirkin (2010), there are extrinsic and intrinsic sources of empowerment. Extrinsic empowerment involves external support, while intrinsic empowerment arises from within individuals, and is related to beliefs, values, and personal knowledge.
During the literature review, I identified two relevant studies of CHWs guided by empowerment theory. First, McCreary, Kaponda, Davis, Kalengamaliro, and Norr (2013) explored how serving as peer leaders increased empowerment among CHWs working in Malawi to address HIV prevention. This qualitative, descriptive study included 18 participants, all of whom had been leading HIV prevention peer groups in their communities for at least one year. McCreary et al. used semi-structured interviews to collect data, which were subsequently analyzed using inductive content analysis. The researchers cited Zimmerman’s theory of psychological empowerment as the basis on which they approached empowerment. Three themes related to individual empowerment emerged from the study’s findings. First, on the intrapersonal level, participants gained increased knowledge of HIV. This knowledge contributed to a decrease in participant behaviors that put them at risk for HIV. Participants also became more willing to talk about sexuality as related to HIV transmission. On the interactional level, participants became advocates of HIV prevention for their families, communities, and workplaces. In addition, McCreary et al. reported that participants experienced increased self-efficacy as HIV prevention advocates, becoming recognized as change agents within their community.

As another example, Kane et al. (2016) conducted a multi-site case study of empowerment among CHWs in Kenya, Ethiopia, Malawi, Mozambique, Bangladesh, and Indonesia. The study used Lee and Koh’s (2001) conceptual framework to relate findings to four dimensions of empowerment: meaningfulness, competence, self-determination, and impact. Kane et al. found that empowering processes among 124 participants included engaging in meaningful work that had positive impact in their communities. CHWs also reported increased feelings of competence that came from CHW training. Interestingly, many of the participants felt they lacked autonomy in their roles as CHWs, which contributed to feelings of disempowerment.
Given that photovoice has the potential to empower research participants (Budig et al., 2018), a theory of empowerment might be an appropriate choice to guide research using photovoice. Additionally, empowerment theory and Freire’s critical pedagogy share common roots. However, empowerment theory has notable limitations. Peterson (2014) noted that empowerment theory has been largely untested through empirical research. Presently, there appears to be no consensus on the core concepts or propositions of empowerment theory, which presents a challenge. Zimmerman (2000) further discussed the difficulty of operationalizing empowerment, especially given that empowerment appears to be a context-specific concept. For example, that which empowers an adolescent mother may be very different than that which empowers an older man who has recently lost his wife. Given these limitations, as well as the nature of my research questions, I saw no compelling reason to choose empowerment theory over the theories I selected.

**Summary**

In this chapter, I provided an overview of research exploring CHWs in LMICs. A significant number of studies supported the short-term effectiveness of CHW-implemented health interventions in a multitude of contexts. Nevertheless, there is a deficit of studies that demonstrate long-term success of CHW programs. De Vries and Poole (2017) argued that sustainability of CHW programs in LMIC has not been achieved. Barriers to long-term success of CHWs include local factors such as poor community and governmental support, lack of remuneration, inadequate knowledge of health-related concepts, and scarcity of material resources.

Specific to the D.R., there is a dearth of studies that have explored the unique experiences and perspectives of Dominican CHWs. Moreover, no studies to date have examined how
Dominican CHWs perceive their roles, the factors that sustain them, or the barriers they encounter in their work. Accordingly, a significant knowledge gap exists with respect to local factors that support or impede CHWs in the D.R. The study I conducted directly addressed this knowledge gap. As noted above, photovoice was an appropriate methodology that used to elicit deep knowledge about the perspectives of CHWs. Finally, considering the nature of the study, SCT, role theory, and critical pedagogy provided appropriate frameworks for guiding this line of inquiry.
Chapter 3: Methodology

High quality research depends on systematic procedures that researchers use to plan, guide, and execute the process of scholarly inquiry. These systematic procedures are known as research methodologies, and they are essential to designing and implementing sound, rigorous research that can generate meaningful knowledge (Rajasekar, Philominathan, & Chinnathambi, 2013). A strong research methodology can facilitate inquiry when the choice of methodology is congruent with the purpose and goals of a study (Grove, Burns, & Gray, 2013; Morse & Richards, 2002; Polit & Beck, 2017; Rudestam & Newton, 2014). Some methodologies are better suited for answering certain types of research questions (Munhall, 2012); therefore, the choice of research methodology significantly influences the likelihood that a researcher will be able to answer research questions proposed by a study.

In this chapter, I describe the research methodology and processes I followed to conduct a study that explored the experiences and perspectives of CHWs living and working in the D.R. The primary research questions that the study addressed were:

1) How do CHWs view their role in the community?

2) What factors support the work of CHWs?

3) What challenges do CHWs encounter in their work?

To answer these questions, I used an interpretive, qualitative approach to the inquiry. Specifically, I selected a PAR strategy known as photovoice to explore the participants’ experiences as CHWs. The rationale for this choice, as well as the processes that I followed during the study, are detailed below.
Worldview and Personal Positioning of the Researcher

Researchers’ personal views of reality and the nature of knowledge have significant implications for the research process. The ontological and epistemological beliefs that researchers hold inevitably influence the types of questions they ask and the research designs they employ. Guba (1990) described how the worldviews of researchers are informed by underlying philosophical assumptions, which are in turn associated with research paradigms.

Creswell and Poth (2018) described philosophical assumptions as fundamental beliefs about the nature of reality (ontology), knowledge (epistemology), values (axiology), and research methodology (methodological). Furthermore, they noted that interpretive frameworks are guiding paradigms that reflect a researcher’s core philosophical beliefs. These paradigms include specific philosophical assumptions that distinguish the different interpretive frameworks (Guba, 1990).

Interpretive frameworks in qualitative research include, but are not limited to, postpositivism, social constructivism, transformative frameworks, postmodern perspectives, and pragmatism (Munall, 2012). Each of these frameworks situates inquiry within a worldview that includes specific philosophical assumptions. For example, postpositivism holds to the ontological belief that there is a single reality and to the epistemological view that knowledge about reality is constructed through systematic research methods, which provide an approximation of a certain facet of existence (Creswell & Poth, 2018). In contrast, social constructivism holds to the belief that there are multiple realities, and knowledge about those realities is co-constructed through interactions between researchers and participants.

For this study, I situated inquiry within a transformative framework, which aligned with my personal worldviews. Transformative frameworks are appropriate for research that seeks to
create or catalyze social changes for the benefits of marginalized or disadvantaged populations (Creswell & Poth, 2018). A transformative orientation to inquiry recognizes that knowledge is not neutral, but something that reflects social relationships and power between individuals and groups (Mertens, 2009). People who are part of groups associated with discrimination or oppression consistently experience diminished access to the resources necessary for a healthy life (Mertens, 2009). Accordingly, transformative research is action oriented, meaning that research is conducted to generate knowledge that will be used to improve the lives of participants. Below, as delineated by Creswell and Poth (2018), is a summary of the key philosophical assumptions of transformative frameworks:

- **Ontological beliefs.** People’s reality is significantly shaped by their place in the social hierarchy. A subjective-objective reality emerges from interactions between researchers and participants.

- **Epistemological beliefs.** There are multiple ways of knowing. Knowledge about reality is co-constructed through interactions between researchers and participants.

- **Axiological beliefs.** Indigenous values are acknowledged and respected.

- **Methodological beliefs.** Methods should involve collaborative processes that create knowledge to improve society.

Turning to my personal worldviews, I believe that research should have tangible benefits for participants, particularly when they are members of disadvantaged groups. I also believe that the reality of our lives is strongly shaped by power structures that exist within society. Since the researcher is usually the primary instrument of inquiry in qualitative research (Creswell & Poth,
the congruence between the study’s interpretive framework and my worldview is a key methodologic consideration.

Given my personal worldviews, as well as the aims of the study I conducted, a transformative framework was an appropriate choice to guide inquiry. Community health workers working in LMIC communities exist to fulfill a critical social need that is often the consequence of inequitable distribution and inadequate access to fundamental health care resources (Lehmann & Sanders, 2007). As residents of poor communities, CHWs often carry out their work within a context of social inequity. Furthermore, CHWs working in LMICs frequently lack adequate training, social support, and material resources necessary to sustain their work (Mays et al., 2017; Pallas et al., 2013; Tilahun et al., 2017). Accordingly, CHWs in LMICs would benefit from research using a transformative framework to generate knowledge that could be used to validate their perspectives and address the issues and concerns they encounter in their role.

**Positioning the Researcher**

As instruments of qualitative data collection, researchers bring to their work their own biases. Accordingly, researchers should “position themselves” by disclosing salient background characteristics about themselves that might influence how data are collected and/or interpreted (Creswell & Poth, 2018). In the following paragraphs, I position myself within the context of the study I conducted.

First, I am a nurse who is guided by the principles and ethics of the profession. As such, I value health. My personal view of health aligns with the WHO’s definition of the concept, which is “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (WHO, 1946, para. 2). I also believe that all persons have the fundamental
right to the resources necessary to achieve optimal well-being. Accordingly, I acknowledge that I conducted this study from a desire to create evidence that can be used to support long-term sustainability of the local CHW program. My belief is that ensuring sustainability of CHW programs will contribute to improved health for local communities.

In addition to being a nurse, I am also an educator, who takes nursing students on education abroad programs to the communities where the study was conducted. Before conducting the study, I visited the region where the study took place, met several of the local CHWs, and developed a relationship with members of the non-governmental organization (NGO) that supports the CHW program. I have also previously travelled to Nicaragua, where I collaborated with CHWs in a rural area of that country. My past experiences in the D.R. and Nicaragua represent important sources of potential bias. I personally value the work of CHWs, and therefore have a desire to see them succeed in their efforts to improve local health outcomes. Consequently, I could have potentially sought findings that were favorable toward participants at the expense of recognizing other perspectives that revealed weaknesses or attributes that were perceived as flaws. Additionally, my experiences in Nicaragua have shaped my personal perspectives of CHWs. There is the potential that I could interpret findings according to perspectives that were formed in a different culture. By acknowledging these biases, I hope to mitigate their impact on the study.

Finally, I am a citizen of the U.S.A., a country that is culturally very different than the D.R. Cultural differences between myself and research participants could have contributed to misunderstandings or misinterpretations during data collection and analysis. It was therefore important to develop a good understanding of the context of the study as well as the perspectives and worldviews of the study’s participants. Accordingly, I spent time visiting the settings in
which the study would take place before I began the process of inquiry. Furthermore, I researched the history and culture of the D.R. and the region of Puerto Plata during the planning stage of the study. It was also essential for me to continually reflect on my worldviews and cultural background and how they might have influenced data interpretation. I accomplished this by engaging in reflective journaling throughout the research process. In doing so, I once again sought to mitigate the impact of personal biases.

Of note, I only have intermediate proficiency in Spanish, which was the primary language of all potential participants. Conducting such cross-language research had its own unique implications and deserved further consideration. As such, how I addressed the issue of cross-language research is described in a subsequent section of this chapter.

**Positioning the Interpreter**

Because all data for this study were collected in Spanish, I used an interpreter throughout data collection. The interpreter was present during all encounters with participants. Consequently, it was necessary that I also position the interpreter within the study’s context. Notably, the interpreter was fully fluent in Spanish, had served previously as an interpreter in many capacities (including during data collection for other research projects), and had completed the ethics program, Collaborative Institutional Training Initiative (CITI), required by my university’s institutional review board (IRB).

The interpreter I employed is originally from the U.S.A. but has spent much of the past two decades living in Nicaragua. He is the co-founder and chief executive officer (CEO) of an NGO that provides sustainable health outreach and community development initiatives in Nicaragua and the D.R. He currently coordinates humanitarian and student education abroad programs to both countries, with the intention of alleviating poverty and creating sustainable
change for disadvantaged communities. He personally believes that sustainable initiatives must be implemented in collaboration with local partners, whom he considers as the experts of their communities. He has been working in Nicaragua since 1998, and in the D.R. since 2018.

Like myself, the interpreter is from a different culture than the participants. He is a citizen of the U.S.A. and formerly a long-time resident of Nicaragua. While in Nicaragua, he worked closely with a team of CHWs known as *brigadistas*. His experiences in Nicaragua, as well as his own cultural background, could have contributed to biases during interpretation. Of note, the interpreter has spent considerable time in the D.R. during the past two years, particularly in the target communities. He has established relationships with community leaders and with some of the CHWs. He has also spent time reading about the history and society of the D.R. to mitigate his own cultural preconceptions.

Additionally, like myself, the interpreter came to the study valuing the local CHWs and wanting them to be successful. Therefore, the potential existed for the interpreter to emphasize the positive aspects of the participants’ lives, or to downplay negative findings that came out during data collection. Accordingly, the interpreter and I discussed the need to be as accurate as possible during interpretation, and to not influence the interview conversations away from responses that might be perceived as negative. The role of the interpreter in data collection is described below in a subsequent section of this chapter entitled “Study Procedure and Data Collection”.

**Justification of the Methodological Approach Followed**

For this study, I chose a qualitative approach, which allowed me to interpret the data within the subjective reality of participants’ lives. An interpretive method aligned with my worldview as well as the philosophical assumptions that underpin transformative research.
Although also considered, there were several reasons why a quantitative approach was not the best choice for this study. Quantitative research is concerned with measurements and the statistical exploration of relationships between variables of interest (Grove et al., 2013; Stake, 2010). A general assumption often associated with quantitative research is that there is an objective reality, which can be known through impartial, empirical inquiry (Grove et al., 2013; Denzin & Lincoln, 2005). In quantitative research, researchers identify and operationalize variables that represent phenomena of interest. Data collected in quantitative research are numerical or can be transformed into numbers through various coding processes (Polit & Beck, 2017). Through statistical analysis of these data, researchers can mathematically describe characteristics of study participants or can identify associations and probable relationships between variables.

Quantitative researchers are often interested in causation and correlation; that is, whether or not one variable produces or is significantly associated with another (Polit & Beck, 2017). Quantitative methods include experimental, cross-sectional, and longitudinal designs, and are especially well suited for conducting formal experiments in controlled environments (Grove et al., 2013). Conversely, quantitative methods are less useful in studies of complex phenomena that resist operationalization through instrumentation, when an understanding of subjective experiences is desired, or when phenomena cannot easily be separated from the context in which they occur (Grove et al., 2013; Polit & Beck, 2017).

Considering the nature of this study, a quantitative approach was not an appropriate method of inquiry. First, the study explored subjective experiences of participants, something that objective measurement tools could not capture or quantify. Additionally, the participants were intrinsically linked to their social context, as the roles they assumed depended upon the
unique needs of their communities. Thus, the nature of the study and the research questions necessitated that inquiry be conducted in the natural setting in which the participants lived and worked. This naturalistic approach to inquiry was not well suited to quantitative methods, which usually rely on controlled settings to eliminate bias and confounding variables (Polit & Beck, 2017).

In contrast to quantitative research, qualitative methods are particularly useful to investigate complex, human phenomena that are shaped by individual experiences and inextricably bound to the contexts in which they occur (Polit & Beck, 2017). Denzin and Lincoln (2005) defined qualitative research as “situated activity that locates the observer in the world. Qualitative research consists of a set of interpretive, material practices that make the world visible” (p. 3). Qualitative research emphasizes the irreducibility of the human experience, valuing the subjective reality that is created through the meanings individuals attach to experiences (Munhall, 2012).

Qualitative researchers also value naturalistic inquiry that takes place in the context in which phenomena occur. Furthermore, qualitative research is interpretive in nature; scholars use qualitative methods to understand situations and events from the perspectives of those experiencing them. By embracing the subjective views of participants, qualitative researchers recognize that people construct their own realities and that valuable insights can be gained by understanding the way people give meaning to life experiences (Creswell & Poth, 2018).

Considering these characteristics, a qualitative approach was well-suited to this study, which sought to explore the subjective experiences and perspectives of CHWs working in the D.R. The naturalistic, interpretive, and subjective nature of qualitative research was congruent
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with the goals of the study, and the proposed research questions were best addressed by qualitative methods.

Several qualitative research traditions exist that can guide researchers through the process of scholarly inquiry. Researchers must carefully consider their choice of research tradition, which should align with the specific aims of a given study. For this study, I selected the research tradition known as PAR, which was congruent with the transformative worldview that underpinned the research design. Participatory action research is appropriate for research that seeks to respect and amplify the voices of participants while also creating knowledge to inform catalyze tangible social change. Furthermore, PAR historically focuses on the needs of marginalized populations. For this study, I sought to improve understanding of the experiences of CHWs in the D.R. in order to inform strategies to support their work. This aim was best accomplished through by a research tradition that was action-oriented and responsive to the needs of the participants. The other major traditions of qualitative research—including phenomenology, ethnography, and case study research—lack the transformative, action-focused orientation of PAR, and so were not considered ideal approaches for this study.

Research Tradition

Participatory action research is an egalitarian methodology in which participants are considered collaborators in the research process. As such, participants in PAR play a significant role in the generation of knowledge, which can be then used to facilitate meaningful changes that benefit those taking part in a particular study (Breda, 2014). Researchers using PAR work with participants to establish research priorities, refine research questions, and collect and analyze data (Minkler & Wallerstein, 2008). In PAR, researchers acknowledge and value experiential knowledge, which can be used to enable actions to achieve social change (Baum et al., 2006).
The democratization of inquiry allows participants to take ownership of the research process and ensures that findings reflect the priorities and preferences of those being studied (Israel, Schulz, Park, & Becker, 1998).

Participatory action research is particularly well suited when working with marginalized or disempowered populations, as it provides a means to acknowledge and validate the voices of participants who have historically been silenced (Breda, 2014). Additionally, PAR seeks to mitigate unequal power relationships that often exist between researcher and participants. This is accomplished by framing participants as collaborators in the process, which then allows research to be truly reflective of the priority needs of those being studied (Israel et al., 1998). The evolution of contemporary PAR was strongly influenced by the works of Orlando Fals Borda and Paulo Freire, two of the leading figures in the field of critical social theory (Breda, 2014). Fals Borda and Freire viewed PAR as both a methodology and a transformative movement, through which meaningful social changes could be achieved (Fals Borda, 1987; Freire, 1970/2018). Thus, PAR is a transformative methodology, one that is congruent with inquiry informed by a transformative framework.

The primary purpose of this study was to generate knowledge to support the efforts of a group of CHWs working in poor communities of the D.R. Findings from the study validated the perspectives of local CHWs, acknowledged their strengths, and identified opportunities to support their work. Accordingly, a PAR approach, which viewed research as a way to facilitate meaningful change, was well-suited to accomplish this particular line of inquiry. By engaging participants as collaborators in the study, I recognized them as colleagues during the research process. By using PAR, I also acknowledged participants as local experts who were best positioned to provide insight into their own needs and experiences.
Particularizing PAR

Although participants are ideally involved in each step of PAR studies, often such a level of involvement is not feasible. For this study, I was an outside agent conducting research in a different country. The challenges of international research necessitated that I adapted the approach to PAR for this study in a way that held to the tradition’s essential tenets, while also making the study’s execution achievable and responsive to the needs of the participants.

First, I established the research questions and study design prior to recruiting participants. However, during an initial meeting, participants had the opportunity to evaluate the relevance of the research questions and to decide if additional research questions were appropriate. Participants were also involved in data collection through the photovoice process. Additionally, participants took part in data analysis during a focus group session by identifying preliminary patterns in the data. Analysis was further refined through the process of member checking. Finally, I plan to work with participants to determine how to best use and disseminate the findings to local stakeholders. Therefore, although participants were not involved in every stage of the study, there was still significant participation in crucial steps of the research process.

Photovoice

Photovoice is a type of PAR that uses photographs to facilitate critical dialogue about issues important to participants and their communities (Wang & Burris, 1994). According to Wang and Burris (1997), three primary goals underlie the development of photovoice: “1) to enable people to record and reflect their community’s strengths and concerns, 2) to promote critical dialogue and knowledge about important issues through large and small group discussion of photographs, and 3) to reach policy makers” (p. 370).
Researchers using photovoice provide cameras to participants, who then document events and situations in their lives through the pictures they take (Wang & Burris, 1994). The photographs facilitate discussion between researchers and participants, who are considered collaborators in the research process. These discussions help participants identify strengths as well as needs (Wang & Burris, 1994). Additionally, insights gained through the photovoice process can catalyze action to address local concerns (Hergenrather et al., 2009). The theoretical underpinnings of photovoice include empowerment education, feminist theory, and documentary photography (Wang & Burris, 1994). Of note, feminist theory and empowerment education are part of the larger body of critical social theory and congruent with a transformative approach to qualitative research.

**Origins of photovoice.** Within the tradition of PAR, Caroline Wang and Mary Ann Burris developed photovoice while investigating the health priorities of rural Chinese women (Wang & Burris, 1994; Wang & Burris, 1997). Originally called *photo novella*, photovoice uses a process by which people take photographs to identify and represent important issues in their community, with the ultimate purpose of catalyzing change (Wang & Burris, 1997).

Using photographs to facilitate understanding of situations or phenomena—a process known as *photo elicitation*—is a strategy that was originally developed in the fields of anthropology and sociology (Harper, 2002). The premise behind photo elicitation is simple: photographs convey contextual and symbolic information in a manner that transcends language, arousing thoughts, memories, and emotions. Visual images act on deeper parts of the human consciousness, tapping into evolutionary older portions of the brain than the areas stimulated by language. “Exchanges based on words alone utilize less of the brain’s capacity than exchanges in which the brain is processing images as well as words” (Harper, 2002, p. 13). Additionally,
photographs preserve a specific moment in time, evoking memories and allowing people to more easily reflect upon life events (Loeffler, 2005; Van Auken, Frisvoll, & Stewart, 2010). Finally, people can also use photographs to share stories and more fully communicate their viewpoints with others (Hergenrather et al., 2009; Wang & Burris, 1994; Wang & Burris, 1997).

Drawing on photo elicitation techniques, Wang and Burris (1994) sought to create a strategy that researchers could use to engage marginalized populations with little access to those in power. Unlike some types of photo elicitation, photovoice entrusts cameras to the hands of people who historically have been disadvantaged, including children, rural women, disabled persons, persons with mental illness, people living with HIV/AIDS, and grassroots community workers (Wang & Burris, 1997; Han & Oliffe, 2016; Seitz & Strack, 2016; Teti, Koegler, Conserve, Handler, & Bedford, 2018).

**Photovoice as an empowering process.** In addition to its use as a research methodology, Wang and Burris (1994) claimed that photovoice could empower marginalized people to gain more control over their life circumstances. Morgan et al. (2010) called photovoice “an empowerment strategy that allows participants to construct new ways of thinking about their lives” (p. 33). When used appropriately, photovoice has powerful potential to enhance community engagement in addressing priority health issues, develop local capacity, and increase self-efficacy of communities to develop local solutions to local problems (Budig et al., 2018; Israel et al., 2010). In a study designed to evaluate the empowering potential of photovoice, Budig et al. (2018) explored the experiences of 10 women who participated in a photovoice project set in a low-income district of Madrid, Spain. The researchers employed semi-structured interviews and field notes to collect data. Using a direct qualitative content analysis, the researchers found that participants experienced an increase in three dimensions of empowerment:
knowledge development and improved critical awareness, enhanced self-perception, and increased social capital.

**Potential risks of photovoice research.** While numerous studies have described the purported benefits of photovoice, researchers have also cautioned about potential risks associated with the methodology. Notably, Johnston (2016) argued that ethical issues arise when using photovoice as a social change project. Specifically, photovoice projects can raise false hopes in participants, who anticipate changes that might never materialize. Johnston also noted that photovoice might be better suited for *policy informing* rather than *policy changing*, as photovoice projects by themselves are not likely to bring about significant policy changes. Nevertheless, Johnston also noted that photovoice has significant potential to inform community leaders about local issues.

Additionally, ethical issues can arise from the actual act of taking photographs. Bisung, Elliott, Abudho, Karanja, and Schuster-Wallace (2015) observed that ethical considerations limit the types of photographs that can or should be taken during photovoice projects. Gentry and Metz (2017) noted that people might experience shame from photographs that depict them in states of poverty or infirmity. Additionally, taking photographs of other people can place participants at risk of physical violence if permission is not obtained before taking the photograph (Ardrey, Desmond, Tolhurst, & Mortimer, 2016). To avoid such issues, researchers typically train participants how to safely and ethically take photographs prior to initiation of the photovoice project (Catalani & Minkler, 2010).

**Photovoice and community health research in LMICs.** As noted, Wang and Burris (1997) developed photovoice while working in poor communities of rural China. Hence, it is not surprising that the research literature is replete with studies that have used photovoice to explore
community health issues in LMIC settings (Ardrey et al., 2017; Barrington, Villa-Torres, Abdoulayi, Tsoka, & Mvula, 2017; Berrang-Ford et al., 2012; Bisung et al., 2015; Cooper et al., 2010; Daniels et al., 2017; Esau et al., 2017; Gentry & Metz, 2017; Ghosh, Bose, Bramhachari, & Mandal, 2016; Khanare, 2012; Kingery, Naanyu, Allen, & Patel, 2016; Musoke et al., 2016; Rani et al., 2017; Saimon, Choo, Chang, Ng, & Bulgiba, 2015; Vaughan, 2010). Several studies were conducted within African contexts and explored experiences of persons affected by HIV/AIDS (Daniels et al., 2017; Khanare et al., 2012; Mitchell, DeLange, Moletsane, Stuart, & Buthelezi, 2005; Skovdal, 2011). Other areas of health that researchers investigated through photovoice included child/adolescent health (Esau et al., 2016; Ghosh et al., 2016; Saimon et al., 2015; Vaughan, 2010; Zietz, Hoop, & Handa, 2018), maternal health (Musoke et al., 2016), and mental health (MacFarlane, Shakya, Berry, & Kohrt, 2015). In a number of studies, researchers and participants used photovoice to assess the overall strengths and priority health needs of their communities (Cooper et al, 2010; Esau et al., 2016; Gentry & Metz, 2017; Ghosh et al., 2016; Kingery et al., 2016). Additionally, researchers often focused on the needs of traditionally marginalized groups whose perspectives are often neglected, particularly women (Bisung et al., 2015; Cooper et al, 2010; Gentry & Metz, 2017; Ghosh et al., 2016; MacFarlane et al., 2015) and children (Esau et al., 2016; Saimon et al., 2015; Skovdal, 2011; Vaughan, 2010).

Several studies described methodologic challenges encountered during implementation of photovoice in LMIC settings. Many of these were logistical challenges, including problems with technology, difficulty training participants to use cameras, problems developing film, and issues related to poor weather (Ardrey et al., 2016; Gentry & Metz, 2017; Mitchell et al., 2005). Additionally, Ardrey et al. (2016) described cultural factors that create challenges to
implementing photovoice in LMICs. For example, some communities might view photography as magical, or cameras might be viewed as a physical asset that could place participants at risk for robbery (Ardrey et al., 2016). Moreover, Esau et al. (2016) argued that photovoice projects could never be fully insulated from the influence of local politics, which can be a source of bias that influences a study’s findings.

**Photovoice in CHW-related research.** Although health researchers have frequently employed photovoice in LMIC community contexts, I found few studies that used the methodology to investigate the experiences of CHWs in these settings. In one example, Limaye, Rivas-Nieto, Carcamo, and Blas (2018) used photovoice to develop community-tailored videos that could guide interventions to improve maternal-child health in rural Peru. The researchers recruited 28 participants for the study, 17 of whom were CHWs. Participants took photographs and recorded videos about factors that supported and impeded the health of local pregnant women. Importantly, while the researchers included CHWs as study participants, their purpose was to illuminate barriers to healthy pregnancies. Thus, this study did not focus on the CHWs themselves.

O’Donovan et al. (2019) conducted a scoping review of past research that used participatory visual methods to explore the experiences of CHWs. The researchers identified 12 original studies that used visual research methods such as photovoice to engage with CHWs. Of these studies, nine were conducted in North America and three were conducted in sub-Saharan Africa. Only two of the studies conducted in Africa used the photovoice methodology to explicitly investigate the experiences of CHWs. First, Mitchell et al. (2005) used photovoice to better understand the issues that CHWs and schoolteachers faced while working with youth affected by HIV/AIDS in rural South Africa. Second, Musoke et al. (2018) used photovoice to
explore role differences between male and female CHWs working in a rural Ugandan community. The researchers recruited 10 CHWs—five men and five women—for the study. Participants learned how to use a camera and were given five months to take photographs that reflected how gender influenced their CHW role. Besides the studies by Musoke et al. (2018) and Mitchell et al. (2005), I found no other photovoice research that investigated the perspectives of CHWs in LMICs. Importantly, none of the studies identified in this review were conducted in Latin American or Caribbean settings.

**Justification for the use of photovoice.** There were several reasons why photovoice was an appropriate choice for this study. First, photovoice is an interpretive method, which provided a way to understand the subjective meanings that CHWs attached to their community role. By using photographs, photovoice allowed me to visualize scenes from participants’ lives, and I was able to reflect on the meaning of the images with participants. Second, photovoice helped participants identify their strengths and areas of concern, which was consistent with the study’s research questions. Third, photovoice combined photographs and narrative inquiry to develop rich data that provided deep insights into the lives and experiences of participants (Harper, 2002). Fourth, photovoice is informed by the critical social theories of empowerment education and feminism, which aligned with the study’s transformative approach to inquiry.

**Setting**

The study took place in the town of Montellano, in the northern province of the D.R. known as Puerto Plata. Montellano is located approximately 14 kilometers from the city of Puerto Plata, which sits on the Caribbean coast, at the beginning of the foothills of the Cordillera Septentrional mountain range (Girma, 2019). The city of Puerto Plata was one of the original tourist destinations of the D.R., however with the establishment of the southern resort city of
Punta Cana, tourism in Puerto Plata has experienced some decline (Dominican Today, 2019). Nevertheless, tourism is still the primary industry in the area, and much of the population in the province of Puerto Plata works for tourism-related businesses such as hotels, restaurants, and tour companies (Yusuf, 2014).

The area known as Montellano includes the municipality itself—with an estimated population of 20,379—as well as numerous small satellite communities that have grown up around the town (City Population, 2019). The communities include both rural and semi-urban areas. Originally, the communities developed around a sugar cane processing plant, which ceased operations in 2005 (Health Horizons International [HHI], 2019a). Many of the families living in and near Montellano originally came to the area to work in the sugar cane industry, which was once one of the D.R.’s leading sources of commerce. The families in the area include many immigrants from Haiti, who also came to the region seeking employment. Indeed, many of the communities began as *bateyes*, encampments meant to temporarily house Haitian sugarcane cutters (Children of the Nations, 2019). Today, housing in these communities consists of freestanding dwellings made of brick, wood, or concrete, as well as single-story *barracones*, concrete barracks originally built by the Dominican government to house workers. The barracks have since been converted into multi-family dwellings. When the sugar cane plant closed, unemployment rates in the surrounding communities increased to nearly 80% and have subsequently remained high (HHI, 2019a).

The communities surrounding Montellano have access to running water, although the water is not potable. Residents rely on purchasing bottled water for drinking and cooking. Most of the communities lack adequate public sanitation, and residents usually use outdoor latrines and showers for personal hygiene. It is also not uncommon for some residents to use rivers and
fields for personal needs. Additionally, while electrical services are available in all the communities, they are subject to frequent blackouts.

Roads servicing many of the communities are unpaved and rocky, although some of the communities closer to the town center have paved streets. Most residents rely on motorcycle taxis to access resources such as grocery stores, health clinics, and hospitals. If motor taxis are not available, residents typically walk to where they need to go. Locally, small colmados (convenience stores) sell a limited number of staples, such as beans, rice, cooking oil, bread, sodas, fruits, and candy. Additionally, two of the communities have small clinics where NGOs periodically host medical brigades and missionary groups that provide episodic health services and medications. When not hosting brigades, the clinics serve as community centers for various social functions.

The climate in the Montellano region is tropical, with hot, dry summers and warm, wet winters. Temperatures in the summer typically range from a low of 76 degrees Fahrenheit to a high of 90 degrees (Girma, 2019). Winter temperatures are more moderate, with an average low of 67 degrees and an average high of 83 degrees. The rainiest months are November through February, with monthly rainfall totals ranging from 7.5 to 9.5 inches (Weather & Climate, 2019). Located on the Caribbean coast, Puerto Plata is sometimes affected by hurricanes, although ocean currents between the D.R. and Puerto Rico often divert storms northward and away from the region (Girma, 2019).

Participants in the study were from seven communities surrounding Montellano. Four were rural communities located approximately five to six miles from Montellano proper. Three of the communities were semi-urban and located within one to two miles from the town center.
Health Horizons International

The CHW program in the Montellano area was established in 2009 by an NGO known as Health Horizons International (HHI), a humanitarian organization that works in the impoverished regions of the D.R. with the goal of achieving positive, sustainable, health outcomes for communities (HHI, 2019b). HHI has created a model of sustainable outreach that involves promoting public health, empowering local leaders, and strengthening the quality of PHC in the region. HHI has four broadly stated goals:

“GOAL 1: Improve health outcomes by empowering communities to prevent the incidence of illness, manage chronic conditions, and access to necessary health care services.

GOAL 2: Strengthen collaboration within the existing health system to enhance its capacity to provide high quality primary health care.

GOAL 3: Improve environmental health by investing in water, sanitation and clean indoor air projects, and programs that promote access to and utilization of healthy food.

GOAL 4: Increase HHI’s capacity and ensure financial and programmatic sustainability”.

(GuideStar, 2019, para. 7).

To accomplish their goals, HHI established two health programs. First, *Sano y Feliz* (Healthy and Happy), is a program that addresses health promotion and disease prevention using community group meetings to provide education on lifestyle strategies for health. Second, the Chronic Care program provides individual patients with medications and regular health monitoring, education on medication adherence, and risk reduction counseling on topics such as smoking cessation, alcohol use, nutrition, and exercise. The primary focus of the Chronic Care
program is management of hypertension and diabetes, which are two of the most common health problems seen in the Montellano region.

From their inception, HHI began collaborating with local CHWs known as promotores de salud, or health promoters, to address the priority needs of the communities of Montellano. The promoters provide a link between community residents, HHI, and the public health care system. At the time of this study, there were 27 health promoters working as part of the HHI network, which is divided into two branches: the Chronic Care Program (CCP) and the Sano y Feliz, (Healthy and Happy) Program (HHP). Community health workers serving in CCP provide chronic disease management for assigned patients in their community. They are typically assigned between 8-12 patients, although this number varies according to the needs of the community. On average, each patient is seen twice a month, although the frequency can increase when necessary. Their responsibilities include vital sign monitoring, medication dispensation and education, and when necessary, referrals to higher levels of care. Those working in HHP provide health education by leading support groups for people living with, or at risk for, chronic diseases. Education topics focus on risk reduction strategies such as healthy eating, smoking cessation, and regular exercise. The frequency of the support group meetings varies significantly. Although assigned to a specific branch, CHWs sometimes serve in both programs when necessary. All CHWs in the HHI network work in the communities in which they live, although they sometimes travel to other locations as part of larger, periodic outreach initiatives. Each month, the promoters receive a stipend of $2000 Dominican pesos ($37.80 U.S.A. dollars) to cover transportation and other expenses incurred during their work.
Protection of Human Participants

Protection of participants’ rights is an essential consideration for all studies that involve humans. For this study, I used several strategies to ensure such protection. First, I obtained approval from Kennesaw State University’s (KSU) IRB prior to beginning the study (Appendix A). Documents were submitted to the IRB in English and Spanish. The university’s IRB required that I also receive study approval from an entity in the D.R. that was authorized to grant permission to engage in research involving human participants. Therefore, I sought and obtained approval from the Consejo Nacional de Bioética en Salud (CONABIOS), the D.R.’s National Commission of Bioethics in Health. The application process followed by CONABIOS required that I have an in-country representative to submit the study protocol. For this study, HHI agreed to serve as my in-country sponsor, and one of HHI’s local executives represented me during the CONABIOS review process. Before submitting the study protocol to CONABIOS, members of HHI leadership reviewed the research materials to ensure they were comfortable with the process, and to identify any potential concerns prior to proceeding. There were no additional requirements stipulated by CONABIOS or HHI. Approval from CONABIOS was granted on July 31, 2019 (see Appendix B). On August 1, 2019, after receiving the authorization letter from CONABIOS, KSU’s IRB fully approved the study.

Before participants agreed to be part of the study, I used an interpreter to verbally explain its purpose and what was required to participate. I also distributed two written consent forms that described the risks and benefits of the study (Appendix C). The participants signed one consent form, which I collected. They kept the other form. All documents given to participants were in Spanish. The consent form was also read aloud in Spanish by the interpreter in order to mitigate
the possibility that participants with low literacy might not fully understand the study procedures or the risks involved.

The study posed minimal risk to participants and was considered no greater than those risks encountered in the activities of daily life. The primary physical risk associated with the study was related to the act of taking photographs. For example, a participant could have taken a picture of someone who did not want to be photographed and therefore became angry with the participant. To address this risk, participants took part in a training session (described below), so that they could take photographs in a manner that was safe and ethical. Training emphasized the need to be aware of one’s surroundings during photography as well as the need to ask permission before taking pictures of people. Participants were required to obtain written permission from all persons they photographed. To document permission was granted, participants used a formal “consent to be photographed” form (Appendix D).

Additionally, there was the potential for participants to experience some psychological discomfort while reviewing the photographs or while participating in the interview or focus group. To mitigate this psychological risk, participants were advised that participation was optional, that they could choose to not answer questions that made them feel uncomfortable, and that they could withdraw from the study at any point in time. Participants were also provided with a notebook, which they could use to write down their feelings, a process that has been shown to be therapeutic (Niles, Haltom, Mulvenna, Lieberman, & Stanton, 2014). Most importantly, a physician working for HHI was available for participants during the project in case they experienced a physical or emotional need.

Additionally, to support confidentiality, no personal identifiers were collected or associated with any of the data recordings, transcriptions, photographs, or field notes. During
recruitment, participants were assigned a number that was used to identify them during the data collection and analysis process. While informed consent was obtained for each participant, the consent forms were not associated with any of the data collected. During the focus group session, participants were asked to address each other by their participant numbers rather than their names. Occasionally, names were mentioned during both the interviews and the focus group. To address this issue of confidentiality, I used MP3 editing software to obscure names mentioned in the audio recordings. In the transcripts, personal names were represented by the characters “XXXX” to signify a name was mentioned while still protecting confidentiality. When writing the report of the findings, I assigned participant pseudonyms, which enhanced the readability of the narrative while also supporting confidentiality.

Data Protection

While in the D.R., I kept all physical data in a locked safe in my hotel room. Digital data were kept on a password-protected laptop computer, which was also locked in the hotel safe. At the end of each day of data collection, I moved recorded files from the recording devices to my laptop. Once the transfer was completed, I deleted the files from the recording devices.

Upon returning to the U.S.A., I stored all physical data in a locked drawer in a locked office at my university. All digitalized data were kept on my laptop, which remained password protected. Additionally, I created a password-protected flash drive to serve as a backup for the data. The flash drive was kept in the locked drawer in my campus office along with other physical data. Five years after completing the study, I will dispose of all documents and digital files using a university approved disposal company.
Participant Recruitment and Selection

Participation in the study was open to all CHWs currently working in the HHI-sponsored CHW program. Staff from HHI facilitated recruitment efforts by distributing flyers to potential participants and sending a group text announcement. I travelled to the D.R. in March 2019 for an initial meeting with the CHWs of the Montellano region. Each month, HHI hosts continuing education sessions for the CHWs, and I attended one of these gatherings. The purpose of this first trip was to introduce myself to potential participants and to establish rapport with them in an informal setting outside of the research context.

After receiving IRB approval from my institution on August 1, 2019, I provided HHI staff with informational flyers (see Appendix E) that invited all interested CHWs to attend a recruitment, information, and training session for the study on August 15, 2019. The flyer provided an overview of the study and described the eligibility criteria for participation. HHI distributed the flyers to the CHWs in their program.

For this study, I used criterion sampling, a type of purposive sampling, in which participant selection is based upon some predetermined criteria (Polit & Beck, 2017). Initially, to be eligible for the study, participants had to be at least 18 years of age, had to currently volunteer as a CHW in the Montellano region, and could not receive a salary for their work as CHWs, which HHI does not provide. A salary was considered regular payments for CHW activities that went beyond the monthly stipend that HHI provides all CHWs to cover work-related expenses. Some of the CHWs working in the network had also assumed staff positions at HHI. Although I had originally planned to exclude CHWs who were also HHI staff members, after a discussion with members of HHI’s executive board, and with input from the CHWs, it was decided that staff members who also volunteered as CHWs might provide a unique perspective that could
enrich findings and create a more holistic view of the CHW experiences. Therefore, the eligibility criteria were relaxed to include CHWs who had become HHI staff members, provided they also served as CHW volunteers as needed. The screening tool that I used to determine participant eligibility is included as Appendix F.

The recruitment, information, and training session was held on August 15, 2019 at the HHI headquarters in Montellano. The session lasted four hours, and attendance was limited to potential participants. None of the executive staff of HHI were present at the meeting. Thirteen CHWs attended the session, which began with an introduction to the study and administration of the eligibility screening tool. All those in attendance were eligible for the study, and all decided to participate.

**Study Procedure and Data Collection**

Once consent was obtained for all participants, the following study procedures were implemented during data collection and analysis. In keeping with the PAR tradition, the study procedures were responsive to participants needs, so that the ultimate process followed was flexible and could be adapted as necessary to the uniqueness of the participants, their context and phenomena being studied. An overview of the study’s key elements, using the Hopscotch Model visual representation tool for qualitative research designs (Jorrín Abellán, 2016), is provided in *figure 1*. 
Instrumentation

For this study, I employed several “instruments” to collect data: 1) myself, 2) an established series of questions commonly used in photovoice, 3) a semi-structured interview questionnaire, 4) the participants themselves, and 5) a demographic survey. In the following paragraphs, I describe how each instrument was used during the study.

As is the case in most qualitative research, the researcher was a primary instrument of data collection for this study. Accordingly, I have disclosed salient background characteristics of myself in a preceding section of this chapter. I had four primary encounters with participants,
which included an initial recruitment and training session, individual interviews, a focus group to review participant photographs, and a final group meeting to review and clarify findings. During interactions with participants, I was careful to bracket my own biases before and during the study. Bracketing is a process through which researchers acknowledge and attempt to set aside preconceptions and personal assumptions that could introduce bias into the study (Munhall, 2012). I accomplished the bracketing process through personal journaling and memo writing throughout data collection and analysis.

During the individual and group reviews of participant photographs, I employed a Spanish version of the Shaffer’s (1983) SHOWeD analytic tool (see Appendix G), which is often used in photovoice studies facilitate dialogue about participant photographs (Hergenrather et al., 2009). The following questions serve as discussion triggers when using the SHOWeD tool:

• What do you See here?
• What is really Happening here?
• How does this relate to Our lives?
• Why does this problem or situation exist?
• How can we be Empowered by this?
• What can we Do about it?

The Spanish translation I used came from a study by Baquero et al. (2014). Furthermore, I developed a questionnaire to facilitate individual interviews with participants. The questionnaire was based upon the study’s research questions as well as Wang and Burris’s (1997) original three goals of photovoice. The questionnaire can be found in Appendix H.

Additionally, because I followed a PAR approach, participants themselves were also considered to be primary research instruments. Participants took the photographs—which were
part of the overall data set—and discussed the significance of their pictures during the interviews and focus group. Finally, a demographic form was used to collect basic information about participants (see Appendix I).

**Use of an Interpreter**

Before describing the specific steps of the study, it is important to consider how I used an interpreter during the research process. As noted previously, while I am proficient at reading Spanish, I only have intermediate fluency in the spoken language, and so I relied on the services of an interpreter throughout the study. The interpreter was fully fluent in both Spanish and English. In a preceding section, I have positioned the interpreter by disclosing salient information about his background that could have influenced data collection and interpretation.

The interpreter was present for all participant encounters, including the recruitment and training session, the interviews, the focus group, and the member checking session. The participant. The interpreter translated all my words to Spanish for participants and also translated participants’ responses to English for me. Before beginning data collection, I provided orientation and training for the interpreter. Training included detailed information about the purpose of the study, the processes and philosophies of qualitative research, and the importance of accurately capturing the voice of each participant. Additionally, the interpreter completed my university’s mandatory course on bioethics in research.

Before proceeding with the study, I reviewed the interview questions with the interpreter, a recommendation made by Squires (2009) to identify any questions that might be problematic due to translation. After each point of data collection, I held a debriefing session with the interpreter to go over findings and to discuss any potential areas where data might have been
misinterpreted. Finally, each day during the process, I reinforced the need to preserve the subjective meaning for all translations provided.

**Participant Compensation**

As compensation for time invested in the research process, each participant received a total of $3,250 Dominican pesos (approximately $61 U.S.A. dollars). The amount of compensation was decided on after consulting with HHI staff, who provided guidance on what an appropriate amount. Compensation was staggered as follows:

- Participation in training session: $750 pesos
- Individual interview to discuss photographs: $750 pesos
- Focus group participation to discuss photographs: $1000 pesos
- Focus Group to review findings: $750 pesos

Participants acknowledged receipt of each disbursement by signing their participant number on a form that I provided every time I distributed compensation. Furthermore, participants were allowed to keep the digital cameras at the end of the study. The cameras had a value of $24 U.S.A. dollars.

In addition to monetary compensation, I asked each participant to select a photograph, which I had framed and gave to them at the final focus group meeting in December 2019. The photograph was a way for me to express my appreciation to participants for agreeing to be a part of the study.

**Process of Data Collection**

In this section, I describe how data were collected throughout the study. First, participants completed a demographic survey and took part in a photovoice training session. Second, participants took photographs during a three-week period, which served as the first source of
data. Third, each participant took part in an individual, semi-structured interview. Fourth, participants attended a focus group discussion, during which they reviewed and discussed each other’s photographs. The process I followed for data collection is illustrated in figure 2, which is followed by a detailed description of each step.

Figure 2: Summary of data collection process
Information, Demographic Survey, and Photovoice Training Workshop

Participant recruitment, eligibility screening, and informed consent were completed on August 15, 2019, in a private meeting room in the Montellano offices of HHI. The room had a closed door, adequate lighting, and fans for participant comfort. Water and coffee were provided for potential participants as they arrived. Thirteen CHWs attended the recruitment session, and all 13 decided to participate in the study. After eligibility and consent were completed, participants were given the demographic survey in Spanish. All participants could read and write, and so they completed the survey independently, although the interpreter and I were present to answer questions. Each participant was assigned a participant number, which was printed on the top of their demographic survey. Throughout the remainder of the study, participants were identified only by their participant number. Once the demographic surveys were completed, I began the photovoice training. The workshop lasted approximately 4.5 hours, during which snacks were available. I presented information in English and the interpreter translated my words to Spanish. After the workshop was finished, lunch was provided to attendees.

During the workshop, I discussed the purpose of the study and how photography could be a useful strategy for exploring important issues during the research process. Each participant was given a small digital camera with a 32-gigabyte, secure digital (SD) card installed. I fully charged each of the camera’s batteries prior to distributing them to participants. Participants also received a camera charger. During the workshop, I taught participants how to operate the camera. Participants learned how to take basic photographs, operate the flash function, review photos, and delete photos from the SD card. Many of the participants were already familiar with digital photography, and they were able to assist other participants during the orientation. Each
camera and SD card were labelled with the participant’s number. Also, with each camera, I took a picture of a piece of paper that had the corresponding participant number written on it. These pictures helped to further associate each SD card with the appropriate participant number. I also provided four backup cameras to HHI staff, in case a participant’s camera was damaged or defective. Participants were advised to bring a damaged or defective camera back to HHI, who could provide a functioning one in exchange for the faulty one.

During the workshop, I used a computer, PowerPoint (PPT) software, and a projector with a large screen to provide visual aids for participants. The presentation was written and delivered in Spanish with the help of the interpreter. Additionally, I provided opportunities for the participants to practice taking photographs throughout the workshop so that I could be certain they felt comfortable working the camera.

**Purpose of study and using visual images.** The workshop began with an overview of the study purpose, a review of the research questions, and a discussion of how photographs could be used to answer the research questions. I adapted training strategies from a photovoice facilitator’s guide by Rutgers (2016), which suggested using images to demonstrate to participants the different ways that photographs are used to express thoughts, experiences, ideas, and feelings. I embedded visual images throughout the training PPT to demonstrate how photographs could serve as literal or symbolic images. I also included photographs of optical illusions, in which more than one image could be seen. The illusions led to a discussion of how photographs can mean different things to different people. Participants enjoyed the illusion activity, and one participant commented that, even when two people see things differently, it does not mean that either one is incorrect.
Once the visual image activity was completed, participants had 45 minutes to practice taking photographs. After ensuring that each participant felt comfortable operating the camera, I provided instructions on the types of photographs that participants should take, which were based on the study’s three research questions. Specifically, participants were advised to:

- “Take pictures that show us what being a CHW means to you.”
- “Take pictures that show us what helps you or supports you as a CHW.”
- “Take pictures that show us what you find challenging about being a CHW.”

Each of the preceding statements was clarified for participants as needed. Participants also had the opportunity to provide feedback on the appropriateness of the questions. All participants agreed that the questions were relevant to their work and were appropriate for the study.

During the workshop, I advised participants that they could keep the camera at the end of the research project. However, until data collection was completed, I asked that participants not take any personal photographs, or to allow anyone else to take photographs with the camera.

**Ethics and safety of photography.** Once participants had the opportunity to practice taking pictures, I facilitated a discussion on how to safely and ethically take photographs. Participants were advised that they should only take photographs of other people after they explained the purpose of the project and obtained written permission from the person being photographed. At this point, I reviewed the permission form (Appendix D) with participants. Each participant received 40 copies of the permission form to use during the project. I also advised that people have the right to decline having their picture taken, and that participants should not try to persuade or pressure people into agreeing to be photographed. Additionally, I asked that participants refrain from taking photographs of anyone under 18 years of age. I also
discussed the importance of preserving the dignity of those being photographed, and how it might not be appropriate to take pictures in sensitive situations. For example, I mentioned that it could be embarrassing for a person to be photographed when he or she is very sick. During the session, I used a roleplaying activity to demonstrate how to appropriately take pictures of other people, which included filling out the permission form.

Finally, participants were advised to always be aware of their surroundings to ensure that they were in a safe environment before taking pictures. For example, I mentioned that participants should make certain they are standing on even ground before taking a photograph. I also described how they should always be aware of hazards such as traffic or animals when taking pictures outside.

**Journaling.** In addition to cameras, participants were provided with a notebook that they could use as a journal and several pens so that they could write down their thoughts and feelings about the photographs they took. Additionally, participants were informed that they might encounter situations that were too sensitive to photograph, but that they wanted to share because the situations were important to understanding their experiences as CHWs. In cases such as this, participants were advised to write a description of the situation or scene in the journal. Participants were advised that using the journal was optional, and that I would collect the journals during the individual interviews.

**Participant-Generated Photographs**

Once participants completed photovoice training, they were given three weeks to take photographs using the cameras provided. This period gave participants an adequate amount of time to take photographs while also minimizing the risks that participants would be unduly burdened or lose interest in the process. The time period was established with input from
participants and the HHI staff. As noted above, the types of photographs taken were guided by the questions presented during the initial training session. I advised that participants could take as many photographs as they wished.

**Individual Interviews**

As noted, three weeks after the recruitment and training session, I returned to the D.R. to meet individually with participants. During these individual meetings, I conducted a semi-structured interview with each participant, reviewed participant photographs, and copied the photographs to my laptop computer. The interviews were accomplished with the assistance of the interpreter. The traditional photovoice does not routinely use individual interviews. The purpose of including participant interviews was twofold. First, some participants might have been hesitant to speak candidly in a focus group setting, and so their perspectives might have been lost by following the traditional photovoice process. Second, data from semi-structured interviews were used to triangulate findings from the photovoice group session, thereby enhancing the rigor of the study design.

The staff of HHI assisted in setting up an interview schedule and sent reminder text messages to participants the day before the interviews. Individual interviews took place in a private setting that was convenient for participants. All 13 participants took part in the individual interview process. Eleven of the participants asked to be interviewed at their homes. Accordingly, I travelled to each of the communities to interview those participants. The final two participants opted to be interviewed at the HHI offices in Montellano. I conducted the last two interviews in a private room with a closed door. See Appendix H for the basic interview questions I used. Additional follow-up questions or probes were also used as needed to clarify information shared during the interviews. Table 1 summarizes the individual interview schedule.
Table 1

Schedule of Individual Interviews

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Date of Interview</th>
<th>Location of Interview</th>
<th>Duration of Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juana</td>
<td>09/09/2019</td>
<td>Participant’s home</td>
<td>43 minutes</td>
</tr>
<tr>
<td>Rosa</td>
<td>09/09/2019</td>
<td>Participant’s home</td>
<td>57 minutes</td>
</tr>
<tr>
<td>Amayah</td>
<td>09/10/2019</td>
<td>Participant’s home</td>
<td>50 minutes</td>
</tr>
<tr>
<td>Amelia</td>
<td>09/09/2019</td>
<td>Participant’s home</td>
<td>43 minutes</td>
</tr>
<tr>
<td>Emmanuel</td>
<td>09/09/2019</td>
<td>Participant’s home</td>
<td>52 minutes</td>
</tr>
<tr>
<td>Gabriela</td>
<td>09/11/2019</td>
<td>Participant’s home</td>
<td>57 minutes</td>
</tr>
<tr>
<td>Nessa</td>
<td>09/11/2019</td>
<td>Participant’s home</td>
<td>86 minutes</td>
</tr>
<tr>
<td>Isabella</td>
<td>09/11/2019</td>
<td>Participant’s home</td>
<td>39 minutes</td>
</tr>
<tr>
<td>Marcel</td>
<td>09/11/2019</td>
<td>Participant’s home</td>
<td>64 minutes</td>
</tr>
<tr>
<td>Paloma</td>
<td>09/10/2019</td>
<td>Participant’s home</td>
<td>68 minutes</td>
</tr>
<tr>
<td>Claudia</td>
<td>09/12/2019</td>
<td>HHI Office</td>
<td>55 minutes</td>
</tr>
<tr>
<td>Lola</td>
<td>09/12/2019</td>
<td>HHI Office</td>
<td>61 minutes</td>
</tr>
<tr>
<td>Franchesca</td>
<td>09/10/2019</td>
<td>Participant’s home</td>
<td>90 minutes</td>
</tr>
</tbody>
</table>

During the interviews, I provided a bottle of water for each participant. I also used two small, digital voice recorders to capture each interview. Although the informed consent told participants that the interviews and focus group would be recorded, I asked permission to use the recorders at the beginning of the interviews.

In the last part of the interview, I copied participant photographs from the camera’s SD card to my laptop computer. I then used the laptop to review photographs with participants.
While reviewing the photographs, I employed the SHOWeD mnemonic to guide discussion of the pictures (see Appendix G).

While I used the questions of the SHOWeD mnemonic to facilitate participant discussions of photographs, because of time constraints, not all questions were used for each photograph. Moreover, some questions were not appropriate for all the photographs. Prior to discussing the photographs, participants reviewed a copy of the SHOWeD questions, and were asked to structure their discussion of the photographs around those questions.

After reviewing the photographs, I invited each participant to choose three or four photographs that they wished to share with other participants during a focus group. Limiting the number of photographs that participants could share during the focus group was necessary due to time constraints. I asked that participants choose at least one photograph that corresponded to each of the three questions I had asked them to address. Participants were not required to choose photographs to share, and one participant opted to only share two pictures. I moved the selected photographs to a separate digital file, so that I could later combine all the chosen photographs into one presentation for the focus group.

Finally, upon completion of each individual interview, I collected participant journals and the completed permission forms that participants used during the project. Of note, no participants chose to write in the journals, and so the blank journals were returned to participants for their personal use. All participants stated that they did not feel the need to write in the journal and that they encountered no sensitive situations that would have necessitated a written description rather than a photograph.
Focus Group to Review Photographs

Once all the individual interviews were completed, I conducted a focus group session with participants, during which we reviewed and discussed their selected photographs. Wang (1999) recommended 7-10 participants as an ideal number for a photovoice study; however, I did not want to exclude eligible CHWs wishing to take part in the project. With 13 enrolled in the study, I initially decided to split participants between two focus group sessions. However, due to time constraints and participant availability, I decided to hold one large focus group session that included all 13 participants. One participant did not attend the focus group, and so her photographs were not included in the discussion.

The focus group session was held on September 13th, 2019 and lasted four hours. The session was held in the same room as the initial photovoice training session. Coffee, water, and snacks were available throughout the meeting. Additionally, at the end of the session, lunch was provided for all participants.

Similar to the individual interviews, I used two recording devices to digitally capture the focus group discussion. I asked permission to use the devices before proceeding with recording. Participants were encouraged to discuss photographs freely but were also asked to avoid talking over each other so that the recording devices could clearly capture each person’s words. Additionally, participants were advised to refer to each other only by their participant number.

To facilitate the session, I created a slideshow that included all the photographs that participants had selected to share. The images were projected on a large screen at the front of the room for easy viewing. I sequenced the slideshow into three rounds of images. Each participant had one of their selected images included in each of the three rounds of photographs.
pictures included in each round of photographs corresponded to the three “assignments” that were given to participants during the training session, which were:

- Round One: “Take pictures that show us what being a CHW means to you.”
- Round Two: “Take pictures that show us what helps you or supports you as a CHW.”
- Round Three: “Take pictures that show us what you find challenging about being a CHW.”

Additionally, for those who opted to share a fourth image, a final round included those extra photographs.

As a participant’s photograph came up in the slideshow, I invited them to share their thoughts and feelings about the photograph. I again used the SHOWeD mnemonic to structure discussions of the pictures. Copies of the SHOWeD mnemonic were provided to each participant at the beginning of the focus group. Once a participant had shared his or her thoughts about a photograph, other participants were also invited to comment on the image.

At the end of each round of sharing, participants were asked to comment on recurring themes or patterns that saw in the photographs or heard during the discussion. I used a large easel pad to write down participant-generated themes, which were used as part of data analysis. Additionally, participants were provided with hard copies of the photographs they selected to share, as well as with notecards to write down their thoughts about the photographs they saw. Participants were invited to use the notecards to further write down common patterns that they recognized during the focus group session. At the end of the session, I collected the notecards, which I used during data analysis.
Data Analysis

In this section, I describe the strategies I used to analyze data generated during the research process. Data for this study consisted of the demographic survey, participant-generated photographs, transcripts of the focus group sessions, and transcripts from individual interviews. Latz (2017) observed that current literature offers minimal guidance on how to analyze photovoice data, while Hergenrather et al. (2009) stated that data analysis in photovoice studies is performed “through codifying data, and exploring, formulating, and interpretive themes” (p. 688). For this study, I used Braun and Clarke’s (2006) process of thematic analysis as my major data analysis strategy. A detailed summary of the process I followed is provided below.

Data Translation and Transcription

In order to conduct a rigorous thematic analysis, I first had to translate and transcribe the recordings from the interviews and focus group. I decided to use a professional translation and transcription service to ensure that the transcripts were accurate and in a user-friendly format. Additionally, once the initial transcripts were received, I sent the Spanish portions of the transcripts to a second translation company to confirm the accuracy of the initial translation. Discrepancies between the two translations were minimal. In the cases where I identified a discrepancy, I called both companies that provided the translations and resolved the discrepancies via discussion with the translators. From there, analysis of transcripts was conducted using the finalized translated transcripts.

Description of Participants

Demographic characteristics of participants is reported in chapter four. Participant descriptions included age, gender, number of months/years as a CHW, the community in which
the participant lives and works, and self-identified race/ethnicity. Demographic data were reported using descriptive statistics.

**Participant Involvement in Data Analysis**

To best accomplish the goal of creating knowledge to inform action—and in keeping with the PAR tradition—participants were included in the data analysis phase of photovoice projects. Wang and Burris (1997) described a three-step approach to participatory data analysis in photovoice, which I incorporated in this study. First, participants selected which photographs to share. By doing so, participants decided which photographs were most representative of the issues at hand. Next, participants helped contextualize the photographs through individual and group discussion. Finally, participants engaged in codifying the photographs by identifying common themes or patterns that arose during the focus group discussion. The themes and patterns that participants identified were recorded on an easel pad and on notecards, which I collected at the end of the focus group. After I conducted an independent thematic analysis (see below), I reconciled participant-generated themes with those that emerged from my analysis.

**Thematic Analysis**

For this study, I used Braun and Clarke’s (2006) six-step method of thematic analysis to analyze both visual data from the photographs, and textual data from the individual interviews and focus group transcripts. Braun and Clarke’s approach was chosen because it provides a structured, systematic approach to conducting thematic analysis.

**Atlas.ti.** To facilitate thematic analysis, I employed Atlas.ti (2018) version 8 for Windows, a qualitative data analysis software package, to organize and manage data from the study. Atlas.ti allowed me to upload all the study’s data into a single repository called a hermeneutic unit (HU). To the HU, I added the translated transcripts and all participant
photographs. I was also able to transfer personal memos that I had written during fieldwork to the HU. Although the memos were not considered part of the data set, having the memos accessible during the process facilitated data analysis.

Atlas.ti (2018) allowed me to create and review codes, assign codes to groups, and create linkages between data elements. When applicable, I was able to associate personal memos with specific blocks of data. Using the “network view” function, Atlas.ti also allowed me to create thematic maps that provided me a visual representation of the links between codes and categories. I also used the software to assess code quality by reviewing the “groundedness” and “density” of specific codes. Groundedness refers to the number of quotations associated with a given code, while density identifies the number of links a specific code has to other codes (Scales, 2014).

**Six step approach to thematic analysis.** With all the data uploaded to a single digital repository, I was ready to begin thematic analysis. During the first step of thematic analysis, researchers familiarize themselves with the data, usually through repeated review of the data elements (Braun & Clarke, 2006). The goal is to become familiar with all aspects of the data so that patterns begin to emerge. Braun and Clarke further noted that researchers must *actively* review their data during this step, noting meanings and patterns as they read. Creswell and Poth (2018) suggested that taking notes and writing memos during this phase of analysis can be helpful at this stage.

As is often the case in qualitative research, I began the process of data analysis while in the field. Each night after conducting interviews, I returned to my hotel room and listened to the day’s recordings, writing down my initial impressions about the data. Although my field notes were not included as data, they helped me to remember important details and ideas that I had
while in the field. They also facilitated identification of themes later in the data analysis process. Once I obtained the transcripts from the interviews and focus group, I read through each multiple times until I achieved a holistic familiarity with the content. During my review of the transcripts, I also reexamined corresponding photographs as they were mentioned in the transcripts.

During the second step of Braun and Clarke’s approach, researchers generate categories of data in a process known as initial (or open) coding. According to Saldaña (2015) “a code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 4). Thus, coding data is the process of labelling segments of data with the intention to categorize and summarize that data in some manner. There are numerous ways in which researchers approach the coding process, however the goal of each is usually the same: to reduce a large amount of data into a manageable number of categories based on patterns, commonalities, or relationships so that salient and meaningful factors can be extracted from the data. The choice of coding methods depends upon the context of the study, the study’s purpose, and the researchers own personal philosophies and perspectives (Saldaña, 2015).

For this study, I used a stepwise coding process described by Glaser and Strauss (1967), which involved three stages of coding (figure 3). Initial coding was the first step of the coding process I used. Initial coding is a general approach by which the researcher deconstructs the data so that the resultant parts can be explored, compared, and contrasted. Initial coding keeps researchers open to all the possible directions that can emerge during the first phase of coding (Saldaña, 2015). Using initial coding, I read through each transcript, analyzing the text line-by-line using Atlas.ti (2018), and assigning short phrases that captured the essence of a particular block of text. The qualitative software package allowed me to create an electronic codebook.
from the line-by-line codes. For photographs, I reviewed each photograph, as well as the portion of the transcript that corresponded to the image being reviewed. I then assigned a code to the image. Atlas.ti also allowed me to upload to photographs for convenient coding.

*Figure 3: Coding process used to develop themes*

After generating a preliminary pool of codes via initial coding, axial coding was used to refine the codes generated during the first phase. Using axial coding, researchers reassemble the data that were deconstructed during initial coding (Saldaña, 2015). Through axial coding, data are reorganized so that researchers can identify dominant codes and eliminate or collapse redundancies (Boeije, 2010). Axial coding creates linkages between the categories generated by initial coding, linkages that can then be visually represented (Charmaz, 2014). Saldaña (2015) suggested that axial coding is an appropriate technique for studies that use multiple data collection strategies. Through axial coding, I was able to observe linkages between initial codes, which allowed me to identify relationships and begin to recognize common themes. Atlas.ti allowed me to link codes using a network view to create associations and relationships between to codes. The final codebook used to develop themes is included as table 2.
Table 2

**Codebook**

<table>
<thead>
<tr>
<th>Code</th>
<th>Grounded</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving goals</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Balancing roles</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Being a dependable person</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Building relationships</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>CHW behaviors/tasks</td>
<td>60</td>
<td>4</td>
</tr>
<tr>
<td>CHW role as part of personal identity</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Community gratitude</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Community misunderstanding CHW role</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Community respect</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Community scenes</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Conflict management</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Conflict with community members</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Dedication to community</td>
<td>33</td>
<td>9</td>
</tr>
<tr>
<td>Enhanced self-efficacy</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Environmental barriers</td>
<td>55</td>
<td>7</td>
</tr>
<tr>
<td>Family support</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Frustration when change doesn't happen</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Guide for others</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Having empathy</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Specific health problems in the community</td>
<td>48</td>
<td>7</td>
</tr>
<tr>
<td>Helping others creates a ripple effect</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>I am a teacher</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Impacting other people's health</td>
<td>76</td>
<td>18</td>
</tr>
<tr>
<td>Importance of trust</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Inadequate access to health care resources</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td>Instruments of change</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Intrinsic tendency to altruism</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>Leadership Role</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Learning new things</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>Multiple commitments</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Overcoming barriers</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>Patient non-adherence</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>Patients as source of support</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Perseverance</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>Personal growth and satisfaction</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>Physical demands of work</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Positive emotions from helping others</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>Poverty</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Providing help outside home community</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Providing social support to others</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Recognizing and responding to needs of others</td>
<td>32</td>
<td>7</td>
</tr>
<tr>
<td>Relationships are reciprocal</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Responsibility to community</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Solace in Nature</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>Support from God</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Support from HHI</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>Support from outside health professionals</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Time involved in travel</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Working as a team</td>
<td>31</td>
<td>3</td>
</tr>
</tbody>
</table>
With initial and axial coding completed, I reviewed the data for themes according to the third step of Braun and Clarke’s (2006) thematic analysis. Atlas.ti (2018) facilitated the process by allowing me to see where codes overlapped through the use of co-occurrence tables. This helped me to establish the context in which certain codes occurred as well as helped me to further collapse redundant codes. This step corresponded to the stage of “selective coding” as described by Glaser and Strauss (1967). Collated codes were sorted to identify overarching subthemes, themes, and relationships between those themes (Braun & Clarke, 2006). This step established the basis for step four of Braun and Clarke’s process, during which the identified themes were reviewed and refined. During this step, I further revised the themes, collapsing some categories together into a single theme. I was also able to use Atlas.ti’s (2018) network view function to construct an overall thematic map of the overriding themes developed in this step.

Once I had developed the conceptual map, I compared the results of the thematic analysis with the themes and patterns that were identified by participants. I went back to the HU and entered in participant-generated themes as separate codes, which I then linked to the codes and categories that I had independently established. I found that each of the participant-generated themes corresponded to categories that I had already established through thematic analysis. Thus, the patterns identified by participants reinforced the findings of the thematic analysis.

With the thematic map completed, and in congruence with Braun and Clarke’s (2006) fifth step of thematic analysis, I finalized and defined the themes, naming them to reflect their essential dimensions. Part of this process involved analyzing each theme in relationship to the others, as well as deciding how each theme fit into the narrative “story” of the study (Braun &
At the end of this phase, I resolved overlaps between the themes so that each theme was distinct with clear boundaries.

Once data analysis was complete, I returned to the D.R. and met with participants on December 20th, 2019 to review the findings and to allow them the opportunity to provide feedback and clarify any discrepancies or inaccuracies in the analysis. The study’s interpreter was present for the meeting and facilitated the discussion. The meeting was held in a private, interior location that was arranged by HHI. Beverages were provided during the session. Twelve participants were in attendance. No other persons were present during the meeting. Participants were provided with a written summary of the findings in Spanish, and I verbally explained the results with the help of an interpreter. After explaining each of the study’s themes, I invited participants to provide feedback. The participants stated that the themes accurately represented their voices and their experiences and that no changes were necessary to clarify the findings. At the conclusion of the meeting, I gave each participant a framed copy of the photograph that they had previously chosen as part of the study’s compensation.

Finally, the sixth step of Braun and Clarke’s approach to thematic analysis is writing the report and disseminating findings. This document serves as the written report. During the dissemination of study findings, I will work with participants to plan how to best share the findings with community leaders and stakeholders.

**Trustworthiness**

An essential consideration for all qualitative research is how to maximize the trustworthiness of the study’s findings. Trustworthiness, which is concerned with the quality of qualitative inquiry, is the degree to which readers can have confidence that the findings reported from a study were reached through rigorous methods and accurately reflect the realities and
perceptions of participants (Houghton, Casey, Shaw, & Murphy, 2013; Polit & Beck, 2017). Lincoln and Guba (1985) originally proposed criteria with which to evaluate the trustworthiness of a study: credibility, dependability, confirmability, and transferability. To these, they later added authenticity as a fifth criterion.

Credibility refers to the “truth” of a study’s findings, or the congruency between data interpretation and reality (Lincoln & Guba, 1985; Polit & Beck, 2017). This study established credibility by using multiple informants, multiple forms of data collection, thick description, and member checking. Using multiple informants and multiple forms of data collection provided different perspectives and sources, which I then used to triangulate findings. Triangulation is the use of multiple sources to inform conclusions (Casey & Murphy, 2009). According to Cope (2014), triangulation is a common method used to enhance credibility in qualitative studies. Member checking—which involves sharing findings with study participants so that they can provide feedback on those findings—is another effective way at enhancing credibility (Cope, 2014). During this study, member checking occurred during interviews and focus group sessions, as well as during the follow-up meeting with participants. At the follow-up meeting, preliminary data analysis was presented to participants so that they could critique, validate, and clarify findings. Participants confirmed the results and stated that no modifications of the findings were needed.

Another criterion for evaluating trustworthiness is dependability (Lincoln & Guba, 1985). Dependability refers to the consistency of findings over time and similar conditions (Cope, 2014; Polit & Beck, 2017; Lincoln & Guba, 1985). Cope (2014) suggested that dependability can be established when other researchers review and confirm decisions made at each phase of the study. Each stage of this study was reviewed by four experienced researchers serving on my
dissertation committee. I provided a clear decision trail to committee members so that dependability could be established. I also used overlapping methods of data collection and an in-depth methodologic description. Finally, I provided an audit trial of the study design using the Hopscotch tool (Jorrín Abellán, 2016).

A third component of trustworthiness identified by Lincoln and Guba (1985) is confirmability. Confirmability refers to the neutrality of study findings, or the extent to which data interpretation represents the perspectives of participants rather than the biases of the researcher (Cope, 2014; Polit & Beck, 2017; Lincoln & Guba, 1985). As previously described, positionality was used to acknowledge potential biases that might have resulted from my position in the study. I also used positioning to recognize potential biases introduced by the interpreter. In addition, I employed reflexive journaling throughout data collection and analysis to mitigate personal biases. Reflexive journaling is a technique used in qualitative inquiry to document ideas and feelings in order to bracket subjective perspectives (Cope, 2014; Mantzoukas, 2005; Polit & Beck, 2017). I journaled at the end of each day of data collection, and at the end of every data analysis session. Additionally, during fieldwork, I held nightly debriefing sessions with the interpreter to identify potential sources of bias and to discuss how to improve each subsequent interview.

Transferability is a fourth criterion of qualitative trustworthiness (Lincoln & Guba, 1985). Transferability can be understood as the extent to which research findings have relevance or applicability to individuals or contexts outside the study (Cope, 2014; Lincoln & Guba, 1985; Polit & Beck, 2017). According to Sandelowski (1986) the degree to which transferability is applicable in qualitative research depends on the intent of a particular study. To enhance transferability, this study report includes a discussion section that relates findings to previous
research that has investigated similar issues. By linking results to the larger body of research, I sought to demonstrate how findings expanded the knowledge base of what is known about CHWs working in LMICs. In addition, three theoretical frameworks were used to guide inquiry, which will also link findings to the broader theoretical understanding of CHW experiences.

A fifth criterion of trustworthiness is authenticity. Authenticity refers to how well researchers communicate faithfully the feelings or emotions of participants (Cope, 2014; Polit & Beck, 2017). To enhance authenticity, this study included participants in the data collection and data analysis process. Additionally, double translation was employed to ensure that participants' words were translated to English as accurately as possible. Finally, member checking was another way I used to ensure authenticity.

Cross-Language Research Considerations

The concept of authenticity logically segues into implications of cross-language research. Cross-language research occurs when researchers and participants speak different languages (Temple, 2002). The resultant language barrier is often addressed using a translator and/or interpreter (Squires, 2009). According to Temple and Young (2004), how the interpreter influences the production of knowledge must be recognized. From this standpoint, “there is no neutral position from which to translate and the power relationships within research need to be acknowledged” (Temple & Young, 2004, p. 164).

While English is my primary language, all the participants in the study spoke Spanish. Only two participants spoke rudimentary English. Although I have intermediate command of Spanish that allows me to engage in basic conversation and to navigate routine interactions, my proficiency is not suitable for collecting and analyzing data in Spanish. Therefore, I relied on an interpreter during data collection and a translator during data transcription. The process of
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translation and interpretation from Spanish to English had the potential to obscure the voices of participants and to confound accurate interpretation of the study’s findings. Accordingly, I took measures to mitigate the unwanted effects of translation/interpretation.

Squires (2009) conducted a literature review to identify common strategies used to address issues of trustworthiness in cross-language research. For this study, I made use of several of those strategies. First, interpreters and translators were selected based on their credentials, background, and experience to ensure the most qualified individuals available were recruited. The interpreter I used had previously worked in the D.R., was familiar with the culture in Montellano, and had considerable experience working as interpreter, including serving previously as an interpreter in cross-language research. Second, I “positioned” the interpreter (see above) in the study in order to acknowledge his role, to identify salient background characteristics that could introduce bias, and to recognize the inherent limitations of using interpreters/translators in qualitative research.

As previously noted, I provided training to the interpreter involved in fieldwork. Training included a thorough review of the purpose of the study, discussion of the processes and philosophies of PAR, and the importance of accurately capturing the voice of each participant. During training, I reviewed and practiced the interview questions with the interpreter, another recommendation made by Squires (2009). After each interview and the focus group, the interpreter and I engaged in an evening debriefing session to review findings and to discuss areas where data may have been misinterpreted. When we identified that participants were struggling to understand a question, we discussed how to rephrase some of the questions in subsequent interviews. Questions asking participants about their sources of support and the challenges they
faced had to be re-phrased several times during the interviews for some participants to understand them.

All Spanish and English communications (via interviews, focus groups, etc.) were recorded and sent to a professional transcription and translation service via an encrypted, data-protected web service. Once I received the transcriptions, I sent the Spanish portions of the completed transcripts to a second transcription/translation company, which also used an encrypted web-service for data protection. The second company provided an additional translation of the Spanish portions of the first transcripts. The use of “double translation” in cross-language research was another recommendation by Squares (2009). The first transcription service provided verbatim responses by participants in Spanish as well as English translations. The transcriptions also included the interpreter’s words as well as my own. Upon receipt of the transcripts, I compared the two translations to each other as well as with the original interpretations to identify areas with conflicting information. When I identified a discrepancy, I discussed the issue with the interpreter and the translators so that inconsistencies could be resolved to ensure accuracy. Because I have some fluency at reading Spanish, I was also able to read through the untranslated portions of the transcripts to provide a supplementary check of the translated data. However, because my fluency at written Spanish did not equal that of the translators or interpreter, I treated my own readings only as an auxiliary check that complemented, but did not replace, the professionally provided translations. Ultimately, there were only four areas where I found significant differences between the interpreter’s translations and the translation services transcripts. These four areas were resolved to produce a finalized transcript for data analysis.
Additionally, a summary of findings was “back translated” into Spanish using the same transcription service, so they could be shared with participants, who provided feedback on the results. This process was presented to participants at the member checking session that I previously described.

Ultimately, I also must acknowledge that the use of interpreters and translators can influence the interpretation of findings to some extent because they represent an additional lens through which data are filtered. According to Squires (2009), such acknowledgement is an important, yet often neglected, component of cross-language research. For this study, the use of translators and interpreters is an important study limitation.

Summary

In this chapter, I provided a description of the methodology that I used to explore the experiences and perspectives of CHWs working in communities of northern region of the D.R. known as Montellano. I described the rationale for choosing a qualitative approach to inquiry, while also justifying my decision to implement the PAR method known as photovoice. Strategies I used for participant recruitment and protection of human subjects were disclosed. I provided a detailed description of the processes I followed for data collection and analysis. Additionally, I described strategies I implemented to enhance rigor and trustworthiness of findings.
Chapter Four: Findings

There is a paucity of research that explores the experiences of CHWs living and working in the D.R. To date, their voices have not been represented in existing literature. Previous research has demonstrated that CHWs working in LMICs, such as the D.R., can experience significant challenges to their work, and that long-term sustainability of most CHW programs in LMIC settings has not been achieved (Akintola et al., 2013; Gau et al., 2013a; Gau et al., 2013b; Pallas et al., 2013; Van Dyk, 2007). Accordingly, the goal of this study was to explore the experiences of Dominican CHWs in a manner that would acknowledge and amplify their voices, thereby advancing current understanding of the work they do, the challenges they encounter, and factors that support them.

To accomplish the aims of the study, I employed a PAR method known as photovoice. Participants were given digital cameras, which they used during a three-week period to take photographs that represented their experiences as CHWs. Afterward, each participant took part in an individual, semi-structured interview. At the end of each interview, participants reviewed their photographs with me, at which time they also selected three or four photographs that they wanted to share with other participants during a focus group session. During the group discussion, participants viewed all the chosen photographs, and together they discussed how the photographs related to their experiences as CHWs. Participants also began the process of data analysis by identifying initial themes and patterns that they saw in the photographs or heard during the discussion.

Data were further analyzed using thematic analysis, through which I identified major themes that underpinned the data. The data set from which the findings were extracted consisted of a demographic survey, interview transcripts, participant-generated photographs, and a
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transcript of the focus group. Data were analyzed following Braun and Clarke’s (2006) six-step approach to thematic analysis, which involved becoming familiar with the data, generating codes, reviewing the codes for themes, reconciling preliminary themes with the codes extracted from the data, and finally naming the themes before producing a final report. To generate codes and identify themes, I followed a three-step coding process recommended by Glaser and Strauss (1967), which involved generating initial codes, linking the codes to identify categories, and finally selecting overriding themes. To facilitate data analysis, I employed Atlas.ti (2018) version 8 for Windows, a qualitative analysis software that allowed me to upload photographs and transcripts into a single digital repository known as a hermeneutic unit (HU). I then used the HU to create and track linkages between the data. Data from the demographic survey were reported using descriptive statistics. Although I gave each participant a number to support confidentiality during data collection, I decided to assign pseudonyms for this chapter to facilitate the readability of the narrative and to respect the humanity of each participant.

In this chapter, I present the findings from the study, which are organized according to three themes that I identified during data analysis. The three themes were: 1) mountains to climb, 2) changing lives, and 3) community connections. I have organized the chapter into three main sections. First, I provide a description of each of the 13 participants. Second, I present the participants’ photographs and accompanying narratives from the interviews and focus group session, organized according to the three major themes. Third, I conclude by relating findings from each theme to the original research questions. Those questions were:

1) How do CHWs view their role in the community?

2) What factors support the work of CHWs?

3) What challenges do CHWs encounter in their work?
Description of Participants

For this study, I purposefully recruited 13 participants from seven communities in the Montellano region of the D.R., which is located in the northern province of Puerto Plata. The communities were a mix of rural and semi-urban neighborhoods. The ages of participants ranged from 19 to 52, and the average age of participants was 34 years. With respect to relationship status, two of the participants were married, six were single, four were partnered, and one was separated.

Race was a challenging question for participants to answer, as racial and ethnic categories commonly used in the U.S.A. were not useful in such a multi-racial country as the D.R. Most participants initially struggled to answer the question, responding with their nationality (Dominican or Haitian) instead of race. Once I clarified the question, one participant asked if a response was required, to which I answered no. Two participants opted not to answer the question about race. Of the remaining participants, six identified as indio, three as Black, and two as mulato. The term indio (feminine form: india) is unique to the Caribbean and applies to mixed-race persons with brown skin of varying degrees, but whom identify more with their European descent than their African heritage (Pollack, 2011). Furthermore, mulato (feminine form: mulata) is a term that recognizes one’s African roots and applies to those who identify as mixed Black and White heritage (Moya Pons, 2010). Additionally, all but one participant reported their nationality as Dominican. The remaining participant stated that his nationality was Haitian.

Regarding education, all participants could read and write, which was a requirement to join the CHW program. Eight of the participants had completed high school, two participants had
taken some university-level courses, and two others had completed a four-year college degree. The last participant reported completing the eighth grade of high school.

With respect to their work as CHWs, participants typically reported that they spent between three and five hours a week engaged in CHW-related activities. One participant asserted she was a full-time CHW and that she was always available for her community. Again, the participants struggled to quantify the actual number of hours they spent working as CHWs, with many commenting in their interviews that their schedules were flexible, and that their homes were open for community residents to visit whenever necessary.

Additionally, participants had varying degrees of experience as CHWs. One participant reported that she had been a CHW with Health Horizons International (HHI) since the program’s inception in 2009. Other participants had much less experience, with two participants reporting that they had been working as CHWs for only a few months. Table 3 provides a summary of the demographic data for each participant. To support confidentiality, I have assigned a pseudonym to each participant. Throughout the chapter, I refer to participants by these names.
### Table 3

**Participant Demographic Information**

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Age</th>
<th>Gender</th>
<th>Home Community</th>
<th>Marital Status</th>
<th>Children</th>
<th>Race</th>
<th>Time as CHW</th>
<th>Weekly Hours as CHW</th>
<th>Highest Education Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juana</td>
<td>28</td>
<td>Female</td>
<td>Arroyo de Leche</td>
<td>Partnered</td>
<td>Four</td>
<td>India</td>
<td>1 year</td>
<td>5 hours</td>
<td>High school</td>
</tr>
<tr>
<td>Rosa</td>
<td>28</td>
<td>Female</td>
<td>Arroyo de Leche</td>
<td>Single</td>
<td>One</td>
<td>India</td>
<td>4 months</td>
<td>6 hours</td>
<td>University (4 year)</td>
</tr>
<tr>
<td>Amayah</td>
<td>36</td>
<td>Female</td>
<td>Los Altos de los Ciruelos</td>
<td>Single</td>
<td>Three</td>
<td>India</td>
<td>3 months</td>
<td>4 hours</td>
<td>High school</td>
</tr>
<tr>
<td>Amelia</td>
<td>29</td>
<td>Female</td>
<td>Severet</td>
<td>Partnered</td>
<td>One</td>
<td>India</td>
<td>1 year, 5 months</td>
<td>4 hours</td>
<td>High school</td>
</tr>
<tr>
<td>Emmanuel</td>
<td>50</td>
<td>Male</td>
<td>Severet</td>
<td>Single</td>
<td>Two</td>
<td>Black</td>
<td>8 years</td>
<td>4 hours</td>
<td>Eighth grade</td>
</tr>
<tr>
<td>Gabriela</td>
<td>23</td>
<td>Female</td>
<td>Pancho Mateo</td>
<td>Single</td>
<td>None</td>
<td>No response</td>
<td>4 years</td>
<td>4 hours</td>
<td>High school</td>
</tr>
<tr>
<td>Nessa</td>
<td>41</td>
<td>Female</td>
<td>Bario Facil</td>
<td>Married</td>
<td>Five</td>
<td>India</td>
<td>9 years</td>
<td>6 hours</td>
<td>High school</td>
</tr>
<tr>
<td>Isabella</td>
<td>43</td>
<td>Female</td>
<td>Pancho mateo</td>
<td>Partnered</td>
<td>Two</td>
<td>No response</td>
<td>10 years</td>
<td>5 hours</td>
<td>High school</td>
</tr>
<tr>
<td>Marcel</td>
<td>19</td>
<td>Male</td>
<td>Pancho Mateo</td>
<td>Single</td>
<td>No</td>
<td>Black</td>
<td>2 years</td>
<td>3-4 hours</td>
<td>Some university courses</td>
</tr>
<tr>
<td>Paloma</td>
<td>41</td>
<td>Female</td>
<td>Los Ciruelos</td>
<td>Partnered</td>
<td>Three</td>
<td>Mulata</td>
<td>3 years</td>
<td>“full time”</td>
<td>Some university courses</td>
</tr>
<tr>
<td>Claudia</td>
<td>26</td>
<td>Female</td>
<td>Pancho Mateo</td>
<td>Single</td>
<td>None</td>
<td>Mulata</td>
<td>10 years</td>
<td>4 hours</td>
<td>High school</td>
</tr>
<tr>
<td>Lola</td>
<td>28</td>
<td>Female</td>
<td>Severet</td>
<td>Married</td>
<td>None</td>
<td>Black</td>
<td>9 years</td>
<td>4 hours</td>
<td>High school</td>
</tr>
<tr>
<td>Franchesca</td>
<td>52</td>
<td>Female</td>
<td>La Gran Parada</td>
<td>Separated</td>
<td>Two</td>
<td>India</td>
<td>4 years</td>
<td>10 hours</td>
<td>University (4 years)</td>
</tr>
</tbody>
</table>
When describing their role as CHWs, participants in this study referred to themselves as *promotores de salud* (health promoters), or *promotores* for short. Accordingly, throughout the remainder of this chapter, when referring to participants, I primarily use the term “promoter” or “health promoter” rather than CHW.

**Themes**

In this section, I present participant photographs, along with accompanying narratives, arranged according to three major themes that I extracted during data analysis. Furthermore, each theme encompassed several sub-themes. The sub-themes provide further structure to the presentation of findings. Table 4 gives an overview of the themes and their sub-themes. Additionally, Appendix J provides network views from Atlas.ti (2018) that show the density and triangulation of quotations and participant photographs by sub-theme.

Table 4

**Summary of Themes and Sub-Themes**

<table>
<thead>
<tr>
<th>Major Theme</th>
<th>Sub-themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mountains to climb</strong></td>
<td>1. The needs of my community</td>
</tr>
<tr>
<td></td>
<td>2. Rocks in the road</td>
</tr>
<tr>
<td></td>
<td>3. No matter the distance</td>
</tr>
<tr>
<td><strong>Changing lives</strong></td>
<td>1. Making a difference for others</td>
</tr>
<tr>
<td></td>
<td>2. Making a difference for myself</td>
</tr>
<tr>
<td></td>
<td>3. Change is difficult</td>
</tr>
<tr>
<td><strong>Community connections</strong></td>
<td>1. Mutual support</td>
</tr>
<tr>
<td></td>
<td>2. Managing relationships</td>
</tr>
</tbody>
</table>
The first theme, *mountains to climb* embodied the stories that participants shared of their journeys to overcome environmental barriers in order to meet the needs of their community. Within this theme, participants described how the health problems facing their communities motivated them to become and persevere as health promoters, despite challenging working conditions, such as hot temperatures, rain, and poor roads. The second theme, *changing lives*, reflected how participants perceived their actions as having significant, positive impact on the health and well-being of their communities, as well as on their own lives. Finally, the third theme, *community connections*, encompassed the supportive relationships between participants and their social environment, as well as strategies participants used to maintain those relationships. What follows is a presentation of each of the three themes, accompanied by relevant photographs and significant quotations from the interviews and focus group.

**Mountains to Climb**

The concept of climbing a mountain can be both literal and metaphorical. In a literal sense, mountains are physical barriers that are intrinsic to the environment in which they exist. People residing in mountainous areas face these barriers as part of their daily lives simply because of the nature of the local environment. Therefore, in a literal sense, mountains are physical barriers that people must sometimes traverse to reach a desired destination.

However, mountains often represent more than barriers. Metaphorically, the idea of “climbing a mountain” can symbolize a journey that involves overcoming obstacles to reach a goal or to fulfill some need. Furthermore, this struggle to surmount barriers is also often associated with a sense of purpose and a dedication to succeed in the face of adversity. Reflecting both literal and metaphorical mountain climbing, one of the keys to success reported
by participants was the persistence to continue until the goal was achieved or the summit was reached.

Throughout the interviews and focus group, participants discussed how, as health promoters, they encountered environmental barriers that had to be overcome in order to meet their community’s needs. Furthermore, they used photographs of physical obstacles to symbolize their journeys as health promoters. This process resonated the literal and metaphorical idea of climbing a mountain, which I identified as the first major theme.

Within this first theme, I identified three distinct sub-themes. The first sub-theme, “the needs of my community”, embodied the underlying issues and personal attributes that motivated participants to overcome barriers in order to care for their communities. This first sub-theme represented the beginning of their journeys as promoters. The second sub-theme, “rocks in the road”, reflected the physical environment, which most participants identified as a challenge to their work. During the focus group, participants used examples of physical barriers to represent literal and metaphorical obstacles in their paths as promoters. Finally, the third sub-theme, “no matter the distance”, signified the persistence and dedication to overcome, which participants commonly discussed when describing environmental barriers.

**The needs of my community.** For many, the idea of climbing a mountain begins with some type of intrinsic or extrinsic need that leads to the undertaking. Even before the mountain is identified, there is a motivating factor to undertake a journey. The need to reach a destination, the desire to prove oneself, or the longing to view the world from a great height—all these are reasons why people might be motivated to scale a literal or metaphorical mountain. For participants, a sense of responsibility to their community underpinned their genesis and evolution as health promoters.
Across the interviews and focus group, all participants described how they had a “duty” and a “responsibility” to meet the needs of their communities. This sense of responsibility extended to individual community members and to the community as a whole. “I’m a promoter because of my patients, you see? It’s my duty to help them,” Emmanuel asserted. Marcel explained that a photograph of a patient (figure 4) was important to him because, “That is a person that needs help and she can depend on me because it is my responsibility. That is what I see as promoter.”

When asked about what helped her be successful as a promoter, Amelia began her response with, “First, it’s my responsibility.” For Paloma, her duties as a promoter came before her family obligations. She asserted, “First, I have responsibilities as a promoter.” Franchesca shared a photograph (figure 5) of herself taking a patient’s blood pressure. In describing the photograph, she said, “I am taking the young man’s blood pressure. Fulfilling my duties.” Similarly, Isabella
explained that caring for her community “is something that must be done and I have the dedication to fulfill my duties as a promoter.”

Motivated by an intrinsic sense of duty, participants recognized the significant health needs of their communities and responded by taking action to address those needs. When asked what motivated her to become a promoter, Juana explained, “For my community, because I know that there are elderly persons who need it.” Gabriela became a promoter because she “saw that it was something necessary, for example, in the communities.” Paloma was recruited by another promoter, who recognized that she was already engaged in helping her community. According to Paloma, “She [the promoter] always sees me helping out and working in the community, always aware of others’ needs.” Paloma further defined the role of the promoter by the needs of others, stating that being a promoter “means to help others, ah, to be available for when the person may need me.” Similarly, Amayah linked the role of the promoter to addressing issues in her community, saying, “Well, to me it’s like helping more people, like, that need it.” Rosa decided to become a promoter because “I am here in my community and I can help people
who are in need.” Marcel also described the role of the health promoter in terms of the needs of others, taking many photographs of his patients to show what being a promoter meant to him. When asked about what the pictures of his patients represented, he explained, “It is what I do as a promoter, helping patients, and it also shows how many people need our help.”

In discussing why she became a promoter, Lola explained, “Because you have to get involved. You may not have the money to help directly, but you can get involved in, ah, in the work necessary for the families.” Lola’s words exemplified how the health needs of others motivated participants to begin their journeys as health promoters. As they recognized their community’s health problems, participants also realized that they could take actions to address those issues. Thus, participants perceived their role as health promoters as meeting a critical social need.

While discussing the health needs of their communities, participants frequently identified poverty and a lack of health care resources as key factors that contributed to the need for promoters. The impoverished conditions of participants’ communities were evident in many of the photographs shared during interviews and the focus group. When discussing the needs of their communities, participants frequently commented how the low socioeconomic status of local residents impeded access to health care. As an example, Amayah photographed a woman (figure 6) who did not have the financial means to obtain appropriate health care.
Commenting on the photograph, Amayah confided, “This lady doesn’t have—I mean, she has practically nothing, and she is also a dia [diabetic]—ah, she has hypertension, vision problems and sometimes she doesn’t have means to buy her medication. Because she is poor.”

Amayah also shared another photograph of a neighbor (figure 7), this time a young man, who was diagnosed with multiple sclerosis, a progressive neurologic disorder that is complex and difficult to manage in a resource-poor setting. According to Amayah:

His mom has to buy some very expensive medications and sometimes she doesn’t have the money to buy them. She would even go to see the First Lady who has helped her out, but sometimes I talk to her and she says that there are times when she doesn’t have means to buy her son’s medications.
The situations described by Amayah were not unique. Lack of medications was a significant problem that several participants witnessed in their communities. Many people in the region have chronic conditions such as diabetes and hypertension, both of which commonly require medications to prevent negative, long-term health consequences. Participants noted that community members often could not afford or obtain such medications. “The medications are too expensive for people to afford”, Amelia affirmed. Juana also stated, “We have a lot of people in the community who can’t afford medicines.” Similarly, Marcel explained “At this moment, there are people in my community, or in any other place that needs my support, they are lacking medication”, and Lola elaborated that “There are people who have, um, diabetes and sometimes, yes, they don’t have the means of buying their medication.”

The health problems facing individuals in the communities went beyond a lack of medications. For example, Nessa chose to share a picture that represented the complex needs of her patients (figure 8). Her photograph was an image of a patient’s injured foot. In describing the photograph, Nessa noted, “This is a foot- a diabetic foot. Um, it’s a patient’s. He fell and
punctured himself with a piece of metal and he needed five stitches on his toe.” She further explained:

Taking a photo of a person is fine, but taking a picture of a diabetic foot, you are showing the care for the person. You are showing how much they need you. What is the next step for that foot? What are the instructions that will be taken and the measures that can be taken? They need more than just the stitches. There is a lot that they are going to need from you.

Figure 8. “There is a lot that they are going to need from you”- Nessa

As demonstrated by the preceding examples, participants spoke passionately about how the need of their communities motivated them in their work. Rather than being perceived as obstacles, the hardships faced by their communities—including inadequate access to health care services and the lack of basic resources—were described as the reasons that participants persisted in their journeys as promoters. According to Juana:

What helps me, I would say when they come here to look for me, and then they tell me, ‘Look, I need something from you.’ Or, that, ‘Take my blood pressure to see how I am
doing.’ Or, ‘Test my sugar levels to see how I am doing with that.’ And that is what motivates me the most to continue doing my job.

Similar assertions were given by other participants when asked about what motivated them to serve as promoters. Some of the statements made by participants included: “Because of the necessity there is”, “I am here in my community and I can help people who are in need”, “For my community, because I know that there are elderly persons who need it”, “I saw that it was something necessary”, and “When I see someone else’s need, that - that motivates me more each day.”

For Lola, it was the broader needs of society that motivated her to become a promoter. Accordingly, she took a photograph (figure 9) to represent not only individual patient needs, but also the needs of communities in general. In describing the photograph, Lola commented:

The thing that supported me to be a promoter is poverty in communities and for me it's what bare feet represent… that is one of the—of the motivators as a promoter, to know that there are individuals that don’t have access to the clinics, don’t have access to medications because of their poverty, in general, and for me that photo it—it represents that. There is so much need.
As Lola’s photograph exemplified, the common factor that compelled participants to serve as promoters was the overwhelming need in their communities. To meet those needs, participants took on the mantle of the health promoter, a position that required them to begin a new journey, during which they encountered barriers that had to be overcome to fulfill their duty to the community.

**Rocks in the road.** The road to *Arroyo de Leche*, the community where Juana lives and works as a promoter, is unpaved, uneven, and rocky. Located approximately six miles from the town of Montellano, the community is nestled in the foothills of the *Cordillera Septentrional*, a range of mountains that run parallel to the D.R.’s northern coast. The rugged landscape is challenging for vehicles, but even more so for pedestrians, who must walk up and down steep hills to reach their destinations. Juana frequently experiences this challenge when she goes to visit community members who need her services. Some of the homes she visits are almost an hour away from her home. She therefore took a picture of a neighborhood road (*figure 10*) that represented one of the challenges to her work. According to Juana, “It takes me a while, because
I have to go from here to where the last houses are located, and always walking, alone, with the hot sun, you know what I’m getting at.”

Figure 10. “I have to go from here to where the last houses are located, and always walking, alone, with the hot sun”- Juana

Juana’s photograph represents not only the reality of her physical environment, but the journey she makes as a health promoter. It is the context in which she and her fellow promoters live and perform the duties of their positions. Like a mountain blocking a traveler’s path, Juana’s photograph exemplifies the environmental barriers that participants frequently encounter in their quest to mitigate health issues faced by the local population.

Motivated by the significant health problems confronting their communities, participants consistently discussed encountering environmental barriers, which they had to navigate to meet the needs of their communities and to realize their purpose as promoters. The most common issue identified was the need to walk long distances on roads that were in poor condition. Additionally, participants explained how poor weather conditions contributed to their hardship. Juana’s photograph embodied these difficulties, but she was not alone in identifying the challenges presented by the physical environment. For example, Claudia, who lives in the
neighboring community of Severet, shared a photograph (Figure 11) that was similar to the one taken by Juana. She noted, “One of my photos is the street. That has been, like, a challenge for me, because I only have one kidney, the streets in my community are not that good.”

![Figure 11. “The streets in my community are not that good”- Claudia](image)

Claudia further elaborated on her picture, discussing how she sometimes had to go to the community of La Piedra, which required her to walk almost three miles one way:

> And, you see, there is something else, when working as a - as a promoter, a challenge is the distance that I have to travel. The distance, and even though they are far away—I don’t know if you are familiar with La Piedra? I had a patient from La Piedra. So, that was a challenge, to go once a month and provide that - that support to that patient, and to deliver her medication and to evaluate her monthly. For me, it was a challenge because I had to work. Despite my job, I had to go to her house and make sure that she, just like the others, was doing well.

Similarly, Lola shared a picture of a field (figure 12) that represented the working conditions that the promoters frequently faced. For Lola, the picture symbolized the challenges of fieldwork.
Lola described the picture as follows:

For me that picture, uh, generally, is the field. I mean, it's - that's where we do the job of going to the country - to the country and all that. And the remoteness, if you can see, in the picture, how it appears to be a little far away. So remoteness is something - it's one of the difficulties, both to move from one place to another or from one patient to another patient, then really distance is one of the things that - that affects us. Because sometimes it's not easy to, uh, transport us by vehicle, in the sun and all that.

For Juana, Claudia, and Lola, poor road conditions and long distances not only taxed them physically, but also increased the time needed to complete their duties as promoters. Participants discussed how the time needed to fulfill their duties as promoters meant less time available for their own personal needs. “A real challenge”, Marcel commented, “…sometimes it's very early …and you are forced to wake up —and head right away to see the patient. You would like to stay even a few more minutes in bed, but it’s your duty and work, so you have to go.”
Amelia also shared how the weather and the terrain in her community could be significant obstacles, particularly when she was working against specific deadlines, such as delivering her patients’ medications in a timely manner. According to her, when humanitarian groups delivered medications to her community center, they needed to be delivered “within two days, or even the next day, we have to deliver them, because when they send them, it’s because they [the patients] are almost out.” In these times, Amelia must work quickly, which means many hours spent outside travelling from home to home. For Amelia, pictures of a polluted river without a bridge (figure 13) and the sun (figure 14), represented significant challenges for her. She explained:

“That is the river. I have to go through there to see one of my patients. Ah, it doesn’t look that good, because they’re very ugly, the rivers, are. They are very ugly.”

Figure 13. “That is the river. I have to go through there to see one of my patients”- Amelia

Amelia also noted that she suffered from headaches, which were sometimes triggered by the sun.

“Right now – it is hard. I feel that it’s like- like very close because I can really feel it.”
In addition to obstacles encountered during travel, the working conditions in which participants deliver care are often not optimal. In the community, care is usually provided in the homes of patients, which have no air-conditioning and often lack places to sit. At humanitarian events such as medical brigades, which are temporary health clinics frequently held in community halls and other public buildings, promoters often must stand for several hours. Lola noted:

As promoters, sometimes we work in uncomfortable situations, where - where we are not sitting down and—we don’t have AC, and that, and sometimes we have to stand the whole workday. If we are at the brigade, we have to be standing. If we go visit the patient, sometimes the patient does not have a chair for us to sit. And we have to do it, like, it’s a bit uncomfortable.

Even factors such as environmental sounds could create challenges for the promoters, as Marcel discovered when trying to measure a patient’s blood pressure in a home where there was considerable noise:
Where that patient lives there is a gentleman who works making barrels. I don't know if you guys know them. Most people know who he is. Everyone—Everybody in Montellano. And he makes a lot of noise in his work banging the barrels. And so I went to his workshop to see what was happening. Because when he banged them, I couldn’t hear anything, and that’s a real challenge. And I have to say, ‘Please my love, my love, give me five minutes’, otherwise I’ll have to take the patient to my house.

For Marcel, the noise that interfered with his ability to auscultate his patient’s blood pressure was a problem that impeded his ability to perform his work successfully. Yet his comments were not limited to discussion of the obstacle alone. Instead, they also embodied another concept associated with climbing a mountain: the drive and persistence to overcome.

**No matter the distance.** Marcel’s words reflected a common idea that all participants expressed when discussing their challenges: the perseverance to prevail over obstacles to their work. Although the environment created challenging conditions, participants consistently identified the needs of their patients and communities as the reasons why it was important for them to overcome barriers. Furthermore, during the focus group, participants used the photographs of the physical environment to symbolize and exemplify their commitment and dedication to fulfilling their duties as health promoters. Much like those who persevere to reach the summit of a mountain, participants described how physical barriers could not prevent them from achieving the goal of meeting their communities’ needs. For example, Franchesca commented on Juana’s photograph of the road (*figure 11*):

> My colleague in talking about the distance, and the challenge we have as promoters is to take responsibility that no matter the distance, no matter how the condition of the path we have to walk, the goal is to get the job done. The importance is to get to the patient,
because if we limit ourselves by that - because of that obstacle, then we cannot give a
quality service, we cannot improve the quality of life for that person, yes? Even if there
are obstacles, because there can be obstacles in everything. But the - the strategy is to
look for how that obstacle creates a barrier for you to do a good service.

Similarly, Claudia stated, “The desire of improving myself, and helping my community out has
not been an obstacle for me, like I’m not going to say, ‘the streets are bad, it’s hard to go to
work’.” In discussing the multiple challenges promoters face, Paloma echoed Claudia’s
sentiments, describing how promoters needed to take steps to overcome barriers, advising,
“Having so many responsibilities…comes at a time as everything, uh, it explodes, and there’s
always stress. But despite that…if you get welts, cover them with some makeup and go outside
and do your promoter job.” Emmanuel shared Paloma’s feelings:

It gets difficult if you don’t put your will in it, but if you do put your will in it, it doesn’t
matter whether it’s raining or if it’s not raining. That is the most difficult time, when it’s
raining, and you have to go to Piedra, so, you have to walk there. That it’s a bit far, but
you know, well, it’s your job. If you don’t have a car, you don’t have any transportation
to get there, then you have to go no matter what, because you cannot let a person die,
because he is—because, since, yes, you know it’s your job. You have to do it, no matter
how far they are.

Gabriela also expressed the need to persevere, saying, “You have to do it for the love you have
for - for patients and people, right? It may be very hot, the weather, or it might be raining too, but
you have to get the job done anyway.” Echoing Gabriela’s words, Lola summarized the need to
overcome environmental obstacles most succinctly by simply stating, “You have to do it, and
that’s it.”
In sharing their stories of perseverance, participants demonstrated that one of their key sources of support was an inner strength and a determination to succeed for the benefit of their communities. While participants consistently described barriers, they also were quick to point out how they possessed the capacity to overcome any of the obstacles they faced. For participants, images of environmental obstacles became triggers for discussing their personal strengths. During the focus group, a participant noted that a common pattern in the photographs was “how each of us has a different obstacle or similar to the others, but we all overcome the obstacles.” Similarly, another participant asserted, “One of the obstacles that does not stop us is the road. Roads may be a challenge, but not enough to stop us.” Claudia further elaborated:

Despite the difficulties of the challenge of the road, ah, because of the distance, or, uh - the rocks and everything, it’s, like, we put the heart in - in what we do and - and that's what motivates us, pushes us forward. Despite the challenges, our heart is there, it is in the middle of the work we do and that helps us to do it.

Marcel echoed these sentiments, stating, “Even if there is stone in our path, we can cast it aside and reach the finish line and cross the portal.” Although most participants did not explicitly identify themselves as a source of support, Isabella formally recognized her personal strength by sharing, “I know that this is something that must be done, and I have the dedication to fulfill my duties as a promoter. So, yes, I support myself.”

Participants also recognized that overcoming obstacles could be a transcendental experience that brings about fulfillment or reward, much like the satisfaction a person might feel when reaching the summit of a mountain. “There’s no limit”, one participant declared in the focus group. When commenting on Juana’s picture of the road, Nessa said, “I see that it's a path
going up, I see it rising into the air. But at the same time, I can see a beautiful, beautiful heart in the center.”

Nessa’s comments reflected how participants sometimes viewed the physical environment not only as a barrier, but also as a source of inspiration and renewal, in which personal energies could be restored. Just as mountains can be not only obstacles but also places of tranquility, several participants drew support from the natural beauty of their surroundings, and many of the photos taken were images of scenes from nature. Images of flowers, fields, animals, beaches, and trees were all represented in participant photographs. In contrast to images of the sun, the rivers, and the road—which represented challenges for participants—photographs of peaceful community scenes reflected the serenity that participants sought from their environment. Within these natural surroundings, participants often found the respite needed to revitalize themselves. For example, Rosa shared a picture of the surf coming in on a beach (figure 15). She chose the picture because:

I love the beach…In a sense, because it helps me focus. I don’t know how to explain. It helps me relax in a way. I can be going through a very difficult problem, and I - I can sit by the beach and I search, like, for a solution, a way to solve it.
Franchesca also found refuge in nature, but her respite was closer to her home. She took several photos of flowers, trees, and parakeets. Commenting on a picture of flowers in her yard (figure 16), she remarked, “Those are my flowers, I love gardening. I find peace when I am outside, aren’t they pretty?” Nessa provided insight on the multiple photographs taken of natural scenes, noting, “Nature forms a big part of what moves us, because we see a pure air, an air of tranquility.” Amayah also observed that the natural beauty of the community environment could offset the challenges posed by the physical environment. She elaborated:

In the images of the road we can also see that we can look around at the bushes, the beauty that the Lord has put down our path. When one walks, one does not notice what is around us, or next to us. It’s not just an obstacle to get to a place, but also there is a natural beauty.
Amayah’s words alluded to a spiritual connection with nature, in that God’s work was reflected in the natural surroundings. For Amayah, God gave her the inspiration and strength to succeed. She explained:

There are times you believe that you are going to make it, and I believe in God. And I have, ah, o- before I - I go to sleep, I pray to God. I say, ‘Dear God, help me so everything comes out all right, for my work, and for everything to come out all right. Or give me a little idea that I can have so I carry through and succeed— and to do my things the way they should be done’.

Like Amayah, Marcel also asserted God gave him the strength to endure through challenges along his journey. He said, “First of all, my first source of support is God. As always. That God, ah, gives us the willpower.”

Although the concept of climbing a mountain necessarily entails an obstacle or a struggle, it also encompasses the dedication to achieve one’s aims. Participants in this study chose to focus on their goals and their strengths rather than perseverating on the barriers they encountered along
the journey. From their perspectives, climbing a mountain was about realizing their purpose to help others in need. Paloma exemplified the idea of overcoming obstacles by sharing a picture of a large bunch of bananas hanging from the limbs of a tall tree (figure 17). Paloma provided this explanation of the photograph:

You’ll see, ah, this is a tree, um, and, it, ah, kind of represents what - something that might at first seem to be out of our reach, ah, it shows that if you try hard enough you can, um, you can do anything, you can reach anything, you can reach, ah, whatever is beyond—outside our reach. But as I say, we are trying to find ways to overcome the barrier, and as we succeed, we also have the fruit beside us. With the fruit we can, which is, like, what we are doing, we can nourish ourselves and give to others of what we nourish ourselves.

Figure 17. “If you try hard enough you can, um, you can do anything, you can reach anything”. Paloma
Paloma’s photograph embodied the idea that climbing a mountain is a passage that can ultimately lead to transformation in the lives of those involved. Likewise, participants recognized how their journeys as health promoters catalyzed changes in their communities and, ultimately, in themselves.

**Changing Lives**

The second theme I extracted from the data was that of *changing lives*. Throughout our conversations, participants revealed how they believed their work had a positive and lasting impact on their communities and themselves. For each participant, making a difference in the communities was the ultimate outcome of his or her journey as a health promoter.

Within this central theme, I identified three distinct, interrelated, sub-themes: 1) making a difference for others, 2) making a difference for myself, and 3) change is difficult. For participants, the primary function of the health promoter was to transform the health of individuals and communities (making a difference for others). However, in doing so, participants found their own lives transformed (making a difference for myself). Additionally, while participants experienced personal satisfaction from meeting the health needs of their communities, they also described how making changes could be challenging (change is difficult).

**Making a difference for others.** Making a difference for others involves having significant impact in their lives. According to Merriam-Webster (2019), the definition of “to make a difference” is “to cause change: to be important in some way” (para. 1). For participants, the role of the health promoter was about catalyzing significant changes in the health and well-being of others. Indeed, every participant discussed how their work improved the health of their patients, and how the purpose of the promoter was to make a difference for individuals and communities.
When describing the role of the health promoter, participants compared it to other social positions associated with change. For example, many participants described how being a promoter meant they were community leaders. “A health promoter is a leader of the community”, Emmanuel asserted. Likewise, Claudia viewed the role of the promoter as a community leader. While discussing how she provided injections for patients, Claudia explained, “Because that is part of my job as a community leader. To be aware of what you cannot do, and if I can do it, then do it myself. To provide a service that the individual deserves.” Similarly, Franchesca explained, “Wherever they [promoters] go, they have to be a leader.”

Still other promoters likened being a promoter with other roles associated with change. For Rosa, “It’s like being a guide within my community.” Similarly, Nessa enjoyed assuming the role of an advisor for her patients. She noted, “I enjoy when a person comes to me to ask me for advice or help…being, something like a confidant of the person.” Gabriela likened the promoter role to that of a teacher. She shared, “People can improve their health through health promoters like us. Ah, it’s about teaching people how to lead a healthy life.” Rosa also stated that, as a promoter, “I am a teacher.” Leaders, guides, teachers, and advisors are all social positions frequently associated with change. Thus, for participants, the role of the promoter was that of a change agent for their communities. Although participants served their communities in multiple ways, each role they played was about facilitating change.

A photograph by Rosa exemplified the idea of the promoter as a change agent. The photograph showed a sandy beach crisscrossed with footprints (figure 18). Rosa explained the significance of the photograph for her:

I mean, those are like—this part is like a footprint, a mark that is left by a person, So, I did it so that—this picture shows—that was my favorite picture. Because when - when
you’re a teacher you love to, like, realize about the mark that you leave in each student. Every teacher leaves a mark in each student. It may not be enough, but he teaches something and the student will always have that with him. That is why I like this photo.

Echoing Rosa’s words, every participant discussed how being a promoter meant having a positive and lasting impact on the health and well-being of others. Amayah shared, “If you are involved in this, you can help this person. You can change their life for the better.” Amelia symbolized the act of helping others with a picture she shared during the focus group. In the picture, one person is extending a hand to help another person climb on top of a wall (figure 19). Amelia explained that she took the photograph “because that, ah, type of support is my way of providing my help to those patients when they truly need it.”
Figure 19. “That, ah, type of support is my way of providing my help to those patients when they truly need it” - Amelia

For Amelia, the image she shared represented the fundamental purpose of the promoter, which was to provide assistance to those who needed it. During the focus group, Amelia’s photograph resonated with Franchesca, who noted that the image represented a promoter’s ability to help patients reach a more enlightened understanding of health. Commenting on the photograph, Franchesca asserted:

In - in some way or another, regarding to health, we are in a better position to understand and have more means to learn than the - the patients, and that’s what we do. We provide what we have to the patients, so that they can reach our same level of knowledge in that respect.

While Amelia’s photograph was a symbolic representation of aid, other participants shared literal examples of how they influenced the health of community residents. For example, many participants represented the process of changing lives through pictures of the people they helped, as well as the actions they performed to facilitate change. Emmanuel took several
photographs of the patients he works with, such as the one seen in figure 20. In describing the photograph, Emmanuel explained:

That’s at the house where I go all the time for, ah, to - to take their tablets [medications] and then I check her blood pressure and she always feels happy with me. We always have a conversation and I always discover that her blood pressure is normal, and she, she counts on me to go to her house every day.

Figure 20. “She counts on me to go to her house every day”- Emmanuel

Like Emmanuel, Nessa shared a similar photo of patient (figure 21) who was grateful to receive the help of the promoters, noting, “It’s a patient of mine. He is happy because I am helping him.”
Service to the community was a central theme for all participants. At the most fundamental level, participants described how they made a difference by addressing the immediate health needs of their individual patients, which was one of the primary ways they served their communities. Most commonly, participants used photographs that showed them engaged in direct patient care to represent how they intervened to solve current health problems experienced by their patients. For example, Marcel shared a photograph of himself taking a patient’s blood pressure (figure 22), which represented his work as a promoter.
Similarly, Juana provided a photograph of her taking a patient’s blood pressure (figure 23). She explained. “Here I am working as a health promoter. I’m taking my patient’s blood pressure. I’m helping him to be healthier. That’s what we do, right? We help our neighbors.”

Franchesca also shared a photo of her taking a patient’s blood pressure, this time at a medical brigade that occurred the week before the focus group (figure 24). For Franchesca, images of
patient care represented the essential purpose of the promoter role. While considering the photograph, Franchesca remarked:

In the photo there is, ah, what would be my motivation as a promoter, which is to help people, provide my services and the surroundings where they develop or where they work, or where I can mainly apply all my knowledge in helping people…. To me it means a lot, because I like helping people. And always when I have the tools and the means, and even without having them, I try to obtain these so I can offer my services.

Similarly, Nessa shared a photograph that she took during the medical brigade, this time showing a promoter weighing a patient (figure 25). She explained, “That is another patient. They are weighing him. These are some of the tasks we do, and here we have the equipment we need.”
Participants clearly associated their role with certain tasks, which were all meant to make a positive difference on the health of others. Although measuring patients’ blood pressures was the most common action represented in participant photos, some pictures showed different health promoting behaviors that participants performed to bring about positive changes in their communities’ health. For example, Rosa decided to share a photograph of a support group, which she leads as part of the HHP. One of her key responsibilities as a promoter is to engage groups in charlas, or health education discussions. The primary purpose of the charlas is to promote health through education. For Rosa, being a promoter involved making a difference by sharing knowledge with others. For example, she was recently invited to a community to speak about vaping. She provided information on the dangers of vaping, answering participants’ questions and describing the risk factors involved. Rosa took a picture at the event (figure 26), noting that the picture “…means that I was able to leave new knowledge. That was something unknown to them.”
Isabella discussed another way that promoters assisted their communities—by acting as a liaison between the community and the public health care system. She stated, “I can go to Dora or Ronald and say, ‘look my patient needs a referral’ or something like that, and they help us to make that occur.” Likewise, Emmanuel explained how one of the responsibilities of a promoter was to refer people to a higher level of care:

If someone turned out to have high or low blood pressure, call the doctor—at the office to report that so-and-so has high or low blood pressure. And, if it’s necessary for them to get transferred to the hospital, well he will get transferred to the hospital.

Similarly, Amelia described several different strategies she used to promote health in her community. She linked her actions to facilitating change in her patients’ behaviors, explaining:

When we get the medications in, I get them to my patients. And I watch their blood pressures and their sugars. There are many patients with hypertension. I have learned how to help them with my instruments. I do that. It is difficult, but I try to help them see how they can change. To lead better lives, and to feel better.
Several of the preceding photographs and quotations referenced the equipment that participants employed during patient care encounters. When discussing how they made a difference for others, many participants identified the instruments that they used for patient monitoring as vital to their work. Equipment such as blood pressure cuffs, glucometers, and first aid kits were particularly important for many promoters, who described how they used the equipment to monitor patient health status and to recognize when it was necessary to intervene. Participants relied on the instruments to accomplish their goals of helping others. For example, when asked about what supported her work, Amelia shared a picture of her equipment (figure 27), commenting:

This is part of what supports me as a promoter. Because without the instruments, I can't tell a person if they have high blood pressure or sugar. It's part of - of my support. With this, ah I can, uh inform patients how their health is going, and without them I wouldn't know.

Figure 27. “This is part of what supports me as a promoter”- Amelia
In describing the picture, she noted that it contained “The gloves, the glucometer, and the…the alcohol and everything that is needed.”

Gabriela also identified her instruments as a key source of support in her work. She took a similar photograph of the equipment she uses to assess her patients (figure 28), describing the photograph as “Well, it’s literally a sphygmomanometer and a stethoscope. For me personally, that's my source of work. I mean, that's what helps me to be able to bring the service to people, to help our patients.”

![Figure 28. “For me personally, that's my source of work” - Gabriela](image)

Finally, although participants frequently discussed the importance of equipment such as sphygmomanometers and glucometers, Amelia also described how her hands were her primary instrument of change (figure 29). “My hands are what I use to do my job. My hands.”
The photographs of promoters engaging in tasks such as measuring blood pressure or leading focus groups represented more than the simple act depicted in the photograph. As Paloma noted, the photographs of direct patient care “reflect changes in the life of those who need it.” Through routine tasks such as health screenings, medication dispensation, and health education talks, participants were able to make a difference for others by achieving long-lasting health benefits for their neighbors. For example, Nessa works with several patients who have diabetes. People living with diabetes often have impaired circulation of their lower extremities, and so frequently develop chronic problems with their feet. However, Nessa asserted that, thanks to her efforts, “My patients, ah, they all have good feet. I have been with them almost for eight years.” Similarly, Emmanuel shared the story of a patient who had hypertension. Emmanuel worked to obtain a prescription for the patient, who at first resisted taking the medication. Emmanuel provided further education on the medication, “And as she began to do it, her blood pressure - pressure became normal again.” Likewise, Franchesca also described how her work leading support groups led to long-term changes for members of her community. She explained:
Because I had the beautiful experience of - of being part of a support group for the Healthy and Happy Program, and where a lot of people who may have been unaware of the practical and inexpensive way they could - they could lead a healthy life. And nowadays, wherever they see me, ‘Oh, thanks to Franchesca, I learned to exercise, to eat healthier foods, to do this’.

Marcel also discussed a time that he was able to have a positive impact on a patient’s life, this time while working at a medical brigade. He explained:

An example, about a week ago, last week, at the brigade, there was a little girl, one of my patients, who had an allergy and I let the doctor know about this. And the doctor—they said that they were going to do whatever possible to find that medication for her and yesterday when I am sitting at home Dora comes by and tells me, ‘Look, the doctor sent this, it’s about what you told me.’

The positive outcomes described by participants were not limited to community residents who received direct patient care from the promoters. Participants also recognized that sharing knowledge about health with a few of their community members could lead to widespread changes. In some cases, people who received help from the promoters shared their experiences with others in the community. Participants noted how their work with individual patients could create a ripple effect through which more people in the community benefited. For example, Paloma discussed how people who attended her support groups shared the knowledge they learned with their families and friends. In describing her work, Paloma said:

It’s positive for their life, because others that they know, they see how the other person that went to the talk, changed. And so then more people come to the next talk. And when people hear all the good and positive things, then they talk about it and give others that
information. They say to them, ‘Look, yes, but what they were telling us was good advice, they were motivational words. I changed with that, I tried to follow a healthier diet after that’.

Additionally, a few participants discussed how they were able to make a difference beyond their immediate vicinity. Although participants primarily provided direct care to the members of their home communities, at times, promoters had opportunities to touch the lives of people living in distant areas. For example, Franchesca made the following observation after listening to Rosa speak about the *charla* she provided on vaping:

Something very important according to what she said is that she said she went to Suje, in other words, that is not her community. So, a promoter has a specific role in their community, but wherever they go, they have to be a leader. I mean, transmit what - what they do in their community to other communities. This is something that—it’s important.

For Claudia, her role as a promoter also encompassed more than just the time spent taking care of the patients in her own community. She explained:

Because when you are a promotor, you are not a promoter of your community, you are a promoter of every community and every person that may need you. We are not just, ah, I am not only a promoter at Severet. I am a promoter of any community that I may be in, or at the moment when an, an individual may need my help, I cannot say, like, ‘I am a promoter at Severet, I cannot help you’.

Whether caring for neighbors or working in distant communities, participants clearly perceived that their purpose as promoters was to positively influence the health and well-being of others. Sometimes, they accomplished their goals through routine tasks, such as measuring blood pressures, checking blood glucose levels, or providing education on how to take medications. At
other times participants served as liaisons between the community and the public health care system, assisting patients with referrals or advocating for them to receive much-needed prescriptions. Through their actions, participants felt they were able to facilitate beneficial changes in the lives of the individuals and families of their communities.

**Making a difference for myself.** Within the theme of *changing lives*, all participants also conveyed how their work as health promoters not only helped their communities but made a positive difference for their own lives as well. Participants described how they were able to gain new knowledge, to become proficient in new skills, and to better manage their own health with what they had learned as a promoter. Additionally, all participants discussed how working as a promoter contributed to great personal satisfaction and growth. Therefore, their work as promoters not only made a difference for others but also had a positive impact on their own lives.

When asked about what supported them in their roles as promoters, most participants identified factors related to personal fulfillment. Juana explained, “I have learned things that I thought I was not going to learn, and I feel very happy.” “I feel that - that I learn, so I feel that - that I grow, ah, as I work as a community promoter,” Gabriela shared. Claudia also recognized how becoming a promoter had influenced her life, commenting, “Being a promoter has helped me a lot in growing as a person and in seeing life from a different view as others.” Amelia also experienced personal fulfillment by helping others, describing how positive changes in her patients was a reward for the work she does. She confided:

I get to talk to people and get to know them. I feel so much joy when I can sit down and figure out how to provide that support. I get that reward, that satisfaction to know that I helped make a change in my patients.
Like the others, Marcel spoke at length of how working as a promoter has helped him mature emotionally. For him, the ability to empathize with others has been one of his greatest rewards as a promoter. He explained:

The experience I would like to talk about is, before I was a promoter I did not - did not - did not feel that empathy of feeling someone else’s pain, to put myself in someone else’s pla-place. Because that is the most beautiful experience that I have had with Horizontes, and being a promoter, when I go visit a patient, I can see what mood they are in, that they are not doing well physically or mentally and I sit down and talk to them, and give them advice. For example, I have a patient who will soon be having surgery and I have a daily routine of going to check in on her to see how she is doing. And every day I have to tell her, ‘Look, you can’t be exerting yourself, you can’t work too much, because you know that you will be having surgery in a few days, and if your blood pressure is high, or you have - or you are tired, or you are feeling down—the surgery could be more risky’. And that is the most wonderful experience with Horizontes, that I have been more empathetic, by placing myself in - in other- feeling the pain of others, feeling what my people feel.

One of the most frequent factors contributing to the personal fulfillment of participants was being afforded opportunities to learn. The importance of learning to participants was most evident when they discussed monthly health trainings provided by HHI. The trainings covered various topics, from disease processes to skills training, such as learning to give intramuscular injections. Participants found the trainings helpful not only because they allowed them to better care for their communities and patients, but also because they were opportunities to simply acquire new knowledge. Franchesca was particularly passionate about the trainings, confiding, “Every time they invite us to a workshop, or to something, well, I have had the opportunity to
participate with many. Innumerable.” Similarly, when discussing the role of the promoter, Juana shared, “I feel it motivates me to learn more… I love to learn new things.” Rosa enjoyed the opportunity to learn as well, noting that, in her role as a promoter, “I can learn about the - the problems that exist in my community.” Amayah also found the trainings particularly beneficial. She discussed her experiences at the first training session she attended:

The book they give us, I was reading it, and I liked it. I told my brother, ‘Look, lo-look, I like this.’ Because you learn a lot, there, things that you don’t know, and you learn a lot. You learn all these things. I like th—the experience. I like to learn, I like to kno—know. Because I am also hypertensive. And when I achieve these goals, I also achieve my routine, just like the other people. Like I told the other person that they have to eat healthy meals, they have to work out, they have to eat a healthy diet, and I learn from that, and I loved reading that book. And I said, ‘Wow, I am never leaving, until they tell me to leave’. Only if they tell me, ‘Leave’, but otherwise I love it, because, well, I learn a lot there.

For Claudia, the opportunity to learn skills such as giving intramuscular injections was particularly beneficial (figure 30). Not only did she enjoy learning a skill, she also appreciated how her new ability could benefit persons in need. She shared:

Because this is something that I have always loved doing since I started as a promoter. I love giving injections. That is one of the things that I enjoy the most of my work. In the sense that those people don’t have money to come here to the maternity, or the hospital. For example, if they come for a visit, it’s a sacrifice to get the money together for that visit. So, when they prescribe injections, they have to spend money again, and it’s 400 pesos, 200 each way—and it’s money they don’t have.
Like the others, Gabriela was particularly appreciative of the opportunity to learn new things and took two photographs that represented the process of acquiring new knowledge, one of which is reproduced below (figure 31). In describing the picture, Gabriela explained, “So this is part of our growing as promoters. It represents the knowledge we gain and the knowledge we share with others. Because we never stop learning.”

*Figure 30. “I love giving injections” - Claudia*

*Figure 31. “It represents the knowledge we gain and the knowledge we share with others. Because we never stop learning” - Gabriela*
Gabriela talked at length about the benefits of learning. She emphasized how becoming a promoter afforded her greater opportunities to study multiple topics. The benefits of learning were multi-factorial for Gabriela. She explained.

Being a promoter, you feel like you grow, because one learns a lot of things. Mainly ah, how to lead a healthy life myself, because I have to teach other people, but first, I teach myself. Ah, how, ah, to lead a healthy life. Ah, also, how to maneuver, ah, the teams to treat the patients, ah, know about the medications, ah, try to connect with people. These are things that I learn, so, I feel that - that I learn, so I feel that - that I grow, ah, as I work as a community promoter.

Furthermore, for some participants, being a promoter contributed to greater feelings of self-efficacy. Many of the activities and skills of the health promoter were unfamiliar to them. Trying out new things could be intimidating, but in doing so, several participants gained greater confidence in themselves and their ability to be successful as caregivers. When discussing the skills she acquired through her work as a promoter, Isabella acknowledged:

Of course, I need those skills to take care of patients- to measure blood pressure and things like that. But also, the things I learn belong to me now. So I can better take care of myself and my family now, you see? I am more capable of doing things now.

For Amayah, working for the first time as part of a medical brigade was particularly daunting. She took a picture of her work at a recent brigade (figure 32), explaining how working in it challenged her but also inspired confidence in herself:

There we are at the pharmacy giving medicine to patients. This is - this was my big inspiration. This one's from the last brigade. My inspiration, because I had never, ah, worked there. That was my challenge. That was my challenge, because I had never
worked on that - in that - in that pharmacy area. I've never worked there before. That was my toughest challenge, because I thought I wasn't going to do it the way I did. I prayed all night to the Lord, it can’t go wrong, it's going to work out, but it has to work out for me. And I think I did well.

Finally, for many participants, becoming a promoter fulfilled a long-standing desire to work in health care. The opportunity gave participants personal satisfaction, as they were able to achieve one of their life goals. For example, Amelia stated, “This is something that has always been in me. And so- ah, so I believe, ah- becoming a health promoter was very natural for me.” Lola also expressed a longstanding desire to help others, sharing, “Since I started school, I wanted to study something that - related to health.” Similarly, Claudia noted, “Because before starting with Horizontes, I started—well, I didn’t finish, but I started a first aid class, because I liked doing all that.” In Franchesca’s case, becoming a promoter allowed her to return to health care after changes in the government caused her to lose a job at a pharmacy. Although Franchesca had to seek employment outside of the health industry, “I never discarded the idea of
For Nessa, being a promoter was fulfilling a dream, as she confided:

Ever since I was a little girl, I wanted to be a doctor. That was my - my dream. But, ah, you know, often the - the conditions of the family, as well as of the person, sometimes keeps them to reaching their own goals. But a few years ago, about nine, ten years ago, ah, there was a friend of mine who asked me if I wanted to be a promoter, if I wanted to study something to help people and I loved it. I liked it so much that I did not sleep that day, I was so excited. Yes, because it’s a - like an opportunity because becoming a doctor or volunteer or nurse is a choice beyond our control. It’s something that rises from within. It’s a vocation.

For other participants, the desire to help others was passed down to them by family members, who instilled in them a sense of duty to their communities. For example, Paloma shared, “I feel good helping others. I grew up with - with that in my heart. My mom, mmm, I think that she taught me that, because my mom was that same way.” Likewise, Lola noted that her father was one of the first promoters in her community, and that she followed his example. Franchesca was also inspired by a parent, commenting:

My mom always taught me that it didn’t matter who you helped, because you never know when a member of your own family would be somewhere else and someone would be helping them, too.

Whether it was experiencing satisfaction from altruistic endeavors, learning new skills, or fulfilling a lifelong dream, all participants shared examples of how being a promoter accorded them significant personal fulfillment. Through their work, they were not only making a difference for others, but were also transforming their own lives in multiple ways.
**Change is difficult.** As much as participants experienced personal fulfillment by making a difference in their patients’ lives, they frequently encountered difficulty in helping patients make lasting changes. Additionally, a few participants described how taking on new roles and unfamiliar responsibilities could be daunting. Accordingly, a final sub-theme related to changing lives is that of “change is difficult.”

Although participants desired to have positive impact on the health of others, they encountered barriers to their work as change agents. One of those barriers was a lack of material resources necessary to fulfill their duties. Without the necessary instruments, achieving change could be difficult. During the focus group, one participant commented that “many times not having at hand the necessary tools to be able to help the patient” was a significant challenge. Equally, Paloma talked about how she lacked some of the equipment that she needed to care for patients. She confided:

> We used to have a first aid kit. And now we don’t. And we had a set to take blood pressure, which was something, you know, essential, because if someone falls ill, which has happened like I told you about the people—that same girl has called me twice. And she has told me the same thing, ‘You have the device, come take my blood pressure’. And now that I don’t have it, that’s when she calls me, by chance.

Furthermore, although participants shared many instances in which they were able to facilitate favorable changes in their patients’ lives, they also voiced frustration when patients did not listen or adhere to their advice. For example, Nessa discussed her experiences with patients who failed to follow to the guidance she provided them. For Nessa, non-adherence of patients was one of her greatest challenges. She shared:
When a patient does not have - he shuts in to only his opinion, then that’s when it becomes a big problem, because when a patient says that he is not going to take the medications, because those medications don’t work or that - or that Horizonte is not - not working as it should. Because the medications are not helping, that’s where we come in to explain and find the way for them to, once more expand their thinking and try to continue taking those medications, convince them that it’s for their own good. Not because we want him to take them just because, but convince him that it’s a need for his body. It is a big challenge, when someone doesn’t want to take their medication, they don’t want to watch their health, and we—at least in my case, I have run into a lot of cases like that. And at times, at times you feel like you are wasting your time.

To represent the challenge of patient non-adherence, Nessa shared a photograph of a woman (figure 33), commenting, “…she was saying that her- the medications were not helping, but, was not taking the medications like she should.”

Figure 33. “She was saying that her- the medications were not helping, but, was not taking the medications like she should”- Nessa
Nessa’s use of a patient’s photograph to represent a challenge contrasted to other instances when participants used images of patients to represent sources of support. This contrast exemplified the frustration that promoters felt when their actions to help others were thwarted because people were unwilling or unable to change. Additionally, many participants appeared to adopt paternalistic attitudes toward their patients, assuming that they knew what was best for that person’s health. Consequently, participants became discouraged when patients did not take the promoter’s advice.

Nessa was not the only promoter who expressed frustration when community residents did not follow the advice they were given. Emmanuel commented, “Sometimes patients don’t want to listen. They don’t believe me. The think they don’t need their medication.” Similarly, Lola sometimes felt that her time was wasted when patients did not take the medications they were provided:

Sometimes it’s not even worth it for me to get them the medication. I can get it for them, but if the person is not willing to do it—I mean, for me in that—in that respect, it has been a barrier that—has—it has costed me a lot as time goes by, to the point where I sometimes say, ‘Wow, what am I to do’?

Emmanuel also spoke at length about his experiences with patients who did not want to follow medical advice (figure 34), which he identified as his greatest challenge. He shared an example:

When I started working in Horizons, they gave me a patient that, she, every time I go [to her] home and she never had the normal pressure. She always had high blood pressure because she was - she was not taking her pills and she wasn't taking them. And after I took her measurement, I said, "Ma'am, whose life is it? You—yours or mine? She said, ‘No, mine,’ I said, "Well," I said, "Well, take your pill if you want to live." Then she
started taking the pill as prescribed. That's how her blood pressure was normalized. And she's very - she's very happy with me now. For her, I want to keep going.

Figure 34. “She always had high blood pressure because she was - she was not taking her pills and she wasn't taking them”- Emmanuel

Emmanuel was able to overcome the woman’s reticence to participate in her treatment plan, and in doing so, he was able to transform his relationship with her from a challenging one to a supportive one. Notably, Emmanuel used photographs of his patients to illustrate both factors that supported him and factors that challenged him. This apparent paradox illustrated the complexity of the interactions between promoters and their communities.

At the community level, Isabella was particularly passionate about the difficulties she has encountered in her efforts to address the pollution in her community. Isabella confided:

As a challenge, what I have been working on the most is the trash in the river. I get tired of giving talks and telling the person not to dump the trash, that they can keep it in any sack, and place a - a container for the day that— but people, they don’t understand. They, they always dump the trash in the river. And the people bathe in the river. It is very unhealthy, but they don’t listen and do it anyway.
To illustrate her frustration, Isabella took a picture of a cow, walking along a dirt path that was strewn with litter (figure 35). In describing the photograph, she stated, “The cows—they go looking for water and what they do is eat plastic.”

![Image of a cow on a dirt path]

*Figure 35. “The cows—they go looking for water and what they do is eat plastic”*- Isabella

Finally, just as change was often difficult for patients and communities, a few participants shared how their new experiences as health promoters were at first challenging. The changes associated with taking on a new role with unfamiliar responsibilities could be daunting. For example, although Amayah discussed how working at the medical brigade was ultimately a positive and transforming experience, she was at first anxious about participating in the event. As she described the first time she worked at a brigade, she confided:

That is the obstacle that I have - have encountered, because I had never done it…and they told me, ‘You are going to work in the operative [brigade]’. All right, I, said, ‘Oh, my God, what am I going to do’? Because it’s the first time I go.

Similarly, Claudia was initially reluctant to take on the role of the promoter. She shared, “In the beginning it was kind of hard, because I was a bit shy, I did not want to do it. But Dora told
me, ‘Yes, she - she can do it.’ And she talked me into it.”

For Amayah and Claudia, the changes associated with taking on a new role were initially intimidating. However, both went on to discuss how they were ultimately successful in making the transition to being a health promoter, which allowed them to facilitate positive changes in their own lives and in the lives of others.

**Community connections**

The third theme I identified during data analysis was that of *community connections*, which embodied the importance for participants of engaging with their communities and the necessity of supportive social relationships. Throughout the interviews, participants described how they valued connecting with others. Furthermore, the connections that they made within their communities could be supportive or discouraging, depending on the quality of relationships. Ultimately, participants described how community connections were a vital part of their success as promoters. Conversely, participants also described how negative or adversarial relationships, particularly with other community members, were significant barriers they encountered as promoters. In cases where they encountered hostility from other people, participants described the strategies they used to manage relationships. Accordingly, I identified two sub-themes related to *community connections*: 1) mutual support, and 2) managing relationships.

**Mutual support.** During the focus group session, participants identified “mutual support” as a common pattern they saw in the photographs and stories that they shared. In describing instances of mutual support, participants noted the reciprocal nature of many of their relationships with others. Amelia shared a photo that represented the concept of mutual support (*figure 36*), explaining that she took the photo because, “It was like a symbol of help, that we help each other.”
Examples of images representing mutual support could be seen throughout the photographs shared by participants. Furthermore, participants identified multiple types of mutually supportive relationships. The relationships that participants valued included those with other promoters, the staff of HHI, visiting health professionals, their families, and the patients and other residents of their communities.

Considering the relationships between promoters and each other, mutual support was represented by photographs of participants working together at a medical brigade, which took place the week before the focus group. Participants discussed how they functioned as a team to ensure the success of the brigade. For Gabriela, being a part of a team was an important factor that helped her fulfill the duties of a promoter. Gabriela took a picture of two of her fellow promoters (figure 37), commenting on how they supported each other:

It is also working as a team. I mean, ah, working as a team, as teammates. That is something that helps a lot. Sometimes when you have a question, and you can, ah, ask the other team members and they can help us, as well.
Figure 37. “Working as a team, as teammates. That is something that helps a lot” – Gabriela

Similarly, Paloma took a “selfie” of herself and Gabriela working at a station in the brigade (figure 38). In describing the photograph, she explained, “That is my partner right there. We are supporting each other.”
Paloma also provided a more symbolic representation of team spirit. She decided to take a photograph of animals eating alongside each other in her yard (figure 39). In the scene, different types of animals are gathered to share a communal meal. For Paloma, the image was one of camaraderie in spite of differences. She explained, “They are all eating and sharing together. They are different types of animals, but they still share with each other. So, they are a little community.”
Participants reported that having a colleague to work alongside provided companionship as well as someone to share in the work. Claudia talked about how her colleague sometimes filled in for her when she was sick, ensuring that her duties were not neglected:

For me, since the distance was a problem, I would find support, like from my husband. He would go with me, or I would also ask Emmanuel to come with me to do—because, it’s like, when you walk somewhere and you have company, it feels easier, ah, to do the job. But, if, for one reason or another, ah, I would get sick, where I had to be hospitalized, and I couldn’t do it, Emmanuel would do it for me. I would say that—they knew here that I was sick. Emmanuel would do my job in that case.

Being a part of a team was important for Rosa as well, who shared a picture of people in the community holding hands (figure 40). “I chose this photo, and that is what it means, or, for me, what would be a promoter. I mean, it’s like a team.”
For participants, the benefits of working on a team included having others to help with work, as well as being able to share lighthearted moments with each other. Juana commented:

> It's not a work environment that's super monotonous or boring, but among all of us, all the team that - who works on site, we like that we bring that happiness. We take care of ourselves - we say a little joke and we can laugh.

In addition to their colleagues, promoters also included guest participants in the medical brigades, such as nurses and physicians, as essential members of the team. Together, the promoters worked with these visiting health professionals to mutually support each other’s efforts. Physicians and nurses who participated in the medical brigades offered a different level of expertise to address the health problems of community residents. In turn, the promoters worked alongside visiting health professionals to facilitate their work. Marcel represented the help of outside experts by sharing a photograph of a physician working at the recent medical brigade (figure 41). In describing the photograph, he remarked:
I can see the support that those doctors give us, that every time they come to the brigade, they give that support to our patients as much as we do and give us indications. They don't just rely on what Horizontes is doing, or helping the person with blood pressure and sugar, but often help them with other problems, as we can see in that photo. That patient has a problem both personal and physical, and we can see that the doctor is auscultating him, apart from the examination that was done before he entered the office.

Figure 41. “I can see the support that those doctors give us” - Marcel

Similarly, Nessa took a photograph of another physician who was also working at the brigade (figure 42). Nessa expressed her gratitude for his work:

I like working with him. Yes, because he is humanitarian. He doesn’t make promises that he doesn’t keep. He comes regularly with the brigades, so he is committed to the work. Some groups come once and then they never come again.
Nessa noted how she appreciated the consistency of the physician’s support, a characteristic that contrasted to the aid provided by some humanitarian groups. As Claudia explained, “In the past there have been foreigners that would go, put up a brigade for one day. They would give out some medications and they would leave.” From Claudia’s perspective, inconsistent support offered by international humanitarian groups was not truly beneficial.

The medical brigades and the visits by outside health professionals are arranged and coordinated by HHI, which all participants recognized as a fundamental source of support. While the promoters carried out many of the tasks necessary to fulfill the mission of HHI, the organization provided the promoters with training and medications for their patients, as well as facilitated access to additional communities. Health Horizons International facilitated the work of the promoters in multiple ways. For example, in Amelia’s community of Severet, HHI established a community center, where patients could be seen in a central location that provided places to sit and shelter from the sun and the rain (figure 43). For Amelia, the center was a great benefit. She shared:
The center is a where we can see patients. And when we have brigades, like this last week, it gives us a place where we can give out medications and see patients… you give them an appointment, and they are under the canopy, so they are not uncomfortable. They are comfortable when you take care of them.

*Figure 43. “The center is a where we can see patients”— Amelia*

When talking about HHI, Marcel emphatically stated, “They are always there, willing to help and that motivates me to continue being a promoter.” Similarly, Isabella identified HHI as vital source of support. When asked what helped her succeed as a promoter, Isabella said, “The support by Horizontes, because Horizontes provides the medications.” Lola was exceptionally passionate about the support she has received from HHI, asserting that:

> Horizontes provides in its totality the work that they give you, all of the work. It gives you access to communities. It gives you access to materials to bring to your patients. It gives you the knowledge you need to grow as a promoter and as a person.

Similarly, when commenting on the picture of health assessment instruments that Gabriela shared (*figure 25*), Nessa observed:
Thanks to her tools she can perform her work as a promoter. Because, if she doesn’t
know how to take someone’s blood pressure, how will a patient know, ah, what – I mean,
how his blood pressure is, or how he is doing with his sugar? This is something that
Horizontes has provided us. They are essential.

Additionally, the executive staff of HHI was a fundamental source of support for many
participants, who recognized how staff members were extremely responsive in attending to the
needs of the promoters. To illustrate, Claudia insisted on sharing a photograph of an HHI staff
member (figure 44), whom she considered integral to the success of the promoters.

![Image of a staff member](image)

*Figure 44. A member of the HHI staff - photograph by Claudia*

Some participants also discussed how the staff of HHI recognized the work of the promoters at
the end of the recent medical brigade. The organization awarded certificates that, though
seemingly small, gave participants a feeling of pride and the knowledge that their work was
appreciated by the organization. Franchesca chose to share a picture of the ceremony to
symbolize the support she received from HHI (figure 45). In describing the picture, she said:
There we see, uh, a group of people who are the representatives of the institution to which I belong, that is HHI. And deep down it is in a way, even though they are not the immediate people who provide me with the tools to be able to help those who need it, but, being the executive head, being who, through others, uh, can get things to us, uh, they are the people who motivate us to continue.

*Figure 45. “They are the people who motivate us to continue”*- Franchesca

In response to Franchesca’s photograph, another participant commented, “I can also see that it shows that the work we do at the same time can be rewarded.” Franchesca was not alone in recognizing the certificates in her photographs. Gabriela also shared a photograph of her award from the ceremony (*figure 46*), commenting, “This is a picture of a commendation - as a promoter. For the work that we do. So, those are the things that we are provided as well, as, as a promoter. Um, they acknowledge the wor—the work we do in the communities.”
Clearly, HHI was a critical source of support for participants. Participants consistently described how HHI provided access to medications, trainings, and equipment needed for patient care. Additionally, some participants noted that HHI facilitated access to other communities, allowing participants to extend their efforts beyond their local neighborhoods. Interestingly, participants never identified their relationship with HHI as reciprocal. Instead, participants discussed support as unidirectional, flowing from HHI to the promoters. Nevertheless, when discussing the study with HHI staff, the executive director asserted that the promoters were critical to the success of the organization, and so the relationship was considered one of mutual support.

In addition to their relationships with HHI, many participants described mutually supportive relationships with their family members. Through their work as promoters, participants found they were better able to care for their families. For example, Juana commented that, since becoming a promoter, “I can better take care of myself and my family.” Similarly, Amayah first became a promoter out of a desire to help her grandmother. Amayah shared,
“Because my grandmother is hypertensive and suffers—she suffers from sugar and when I see her illness that motivated me to become a promoter.” However, participants also discussed how their families supported their work as promoters. For example, when asked about sources of support, Juana stated, “My family is a source of support for me,” and Marcel commented, “My parents that have always told me that you have to help other people.” Similarly, Paloma responded “Horizontes, and actually, my - my family. Those are it. Because my - my family knows what I like. And as always, they motivate me to continue giving the best I can give.” For Amayah, her mother and her grandmother were key to her success as a promoter. When Amayah goes to work in the communities, her mother and grandmother watch over Amayah’s two children. Amayah shared a photograph of her grandmother (figure 47), asserting “She, ah, she is everything to me.”

![Figure 47. “She, ah, she is everything to me”- Amayah](image)

Finally, in addition to their families, most participants described a reciprocal relationship with their patients and other community members, whose appreciation and kindness represented a key support system for participants. From a supportive perspective, several participants described how they valued their relationships with patients. For example, Isabella shared a picture of two
patients who attended the brigade (*figure 48*). When asked what was important about the photograph, she explained:

Because this one motivates me - it motivates me, because people are happy. This one, too, the one with the patients—my patients. Because it’s a source of support because by them going to - to the brigade, and me being able to spend time with them, that is support.

*Figure 48.* “Because this one motivates me - it motivates me, because people are happy.”- Isabella

Similarly, Emmanuel choose to share a picture of a neighbor and patient (*figure 49*) to represent factors that support him in his work. For Emmanuel, his patients were central to his success as a promoter, and he described the reciprocal nature of his relationship with them and his community. “I am always aware of what is going on in my community,” Isabella asserted. Furthermore, about his patients, he shared:

The patients gave me the support I needed as a provider. Up until now, they like my work, because I worry about them, and they worry about me. Within the community, everyone likes my work, since I started with it.
At the community level, participants also gave examples of mutually supportive relationships. While the promoters worked to address local problems, their communities recognized their efforts and responded in kind. For example, Rosa acknowledged the way in which communities supported the work of the promoters:

“We see that as promoters we not only receive the support, say from HHI, the support of our family, but also from the people in the community, seeing, as the passion we have for the work we do, seeing the motivation we have, they also give us their support to keep doing the work we do. So, they also go hand in hand with us to push us or motivate us to do this job.

Similarly, Juana offered: “I enjoy being a promoter because I interact with a lot of people who already lived close to my house, but I did not talk to. So, now I—I mean, now I interact with more people.” From Lola: “I have gotten to know more people. I have started making new relationships.” For Juana and Lola, being a promoter allowed them to build stronger connections with the people in their community. Other participants commonly discussed the importance of
community acceptance for them. They described being welcomed by the community as “joyful”, “wonderful”, and “a beautiful experience.” When asked about what being a health promoter meant for her, Juana exclaimed, “It means something that, how can I explain? Something that makes me feel joy, to be able to spend time with the - the people that need me.” Gabriela elaborated:

And furthermore, ah, the way the people in the community embrace us. I mean, our - our - our aid, the aid that we provide, and that they accept as well. It’s something that, ah, really helps us be promoters.

The respect and recognition of the community was mentioned by many participants as a significant way that communities showed them support. For example, Emmanuel noted that, “They [community residents] respect the promoters.” Claudia also noted how community recognition was particularly important to her, given her age. She explained:

I’m proud. And it’s important because right now, people don’t really believe in youth. Because youth are a little unfocused. And I feel very satisfied to be a promoter, because the community sees me differently. Because they know that in me, they can have the support they may need health wise, as well as advice, referring them somewhere else.

Community recognition of participants manifested in a number of ways. Sometimes participants felt supported simply by the friendly words and attitudes of their patients, who expressed gratitude for the help they received. In other cases, community members showed their appreciation with offers of food and drink. These small acts of kindness let participants know that their services were valued, which motivated them to continue their work as promoters.

According to Lola:
I like going out to the fields. The people that live in - in low income communities, generally are - are very nice individuals. If you go, they receive you with a lot of love and a lot of devotion. If they have, even - if they only have water, they offer you water. If they have, like fruits or something that grows in the outdoors, they offer it to you. Because, just like you go to them with love, they receive you and treat you with lots of devotion and love. And that - that part, honestly. I - I enjoy it. And at - at every moment always here in the office, when they see you, they say, for example, “I am going to send you, ah, avocados. I am going to send you oranges, I am going to send you cherries.” And that is how they see that you are really doing volunteer work, and they love that, and it’s about transmitting that love. That you are not doing it for money, but out of love. And honestly when they treat me with love, ah, I really enjoy that.

Lola’s words embodied the reciprocal relationships that participants developed with community residents, as well as the vital contribution such connections played in supporting the work of the promoters. Not only did participants unfailingly describe the help they provided their communities, they also shared how residents showed them gratitude and respect in return. Thus, for participants, the support of the community was an essential factor contributing to their success.

**Managing relationships.** The second sub-theme that I identified with respect to community connections was that of managing relationships. As participants recognized the value of relationships, they also acknowledged the importance of maintaining those affiliations, particularly within their community and with their patients. Some participants attributed their success as promoters partly to their ability to establish and sustain friendly relations with other community residents. Accordingly, many participants described strategies they used to manage
conflict and maintain therapeutic relationships with others. “Treat people with respect and they will listen to you. I get along with everyone, that is why I do good work,” Emmanuel explained.

In developing supportive relationships with patients, many participants described the importance of trust. Participants were able to maintain therapeutic relationships with their patients by establishing themselves as someone on whom others could depend. When asked what being a promoter meant to her, Rosa commented that a promoter was, “A person who you can trust.” Furthermore, Rosa described how trust was necessary to fulfill the responsibilities of a promoter, noting, “I would say the first thing would be to get along with the person. That helps a lot. Also, the person needs to trust you.” For Nessa, being a trusted confidant for her patients was something that gave her personal satisfaction. She explained, “That is what I enjoy the most of that. When people feel they are being supported and trust you.” Paloma also recognized how important it was not to violate her patients’ trust, stating, “I never like to make promises that I cannot fulfill… I tell the person, I am not making any promises, because tomorrow you are going to say that I lied to you.” Emmanuel summarized the primacy of trusting relationships between the community and the health promoters when he shared:

The community depends upon us, they trust the promoters, that we are there when they have a need. And it can be any need, because we are not just about getting people medications. We will do anything to help those who ask.

Claudia also recognized how establishing a trusting relationship with people could increase their effectiveness as promoters:

I love home visits because that is where you become aware of the need of that particular patient, in their health, as well as their environment in their home. For example, they tell you about things that they don’t even tell their family about, because you have to earn
their trust. They don’t tell their family because they don’t trust them, and through that trust, you can help more than what you probably think.

The importance of maintaining positive and trusting relationships with community members was particularly evident when promoters were met with hostile or unappreciative attitudes. For example, Marcel identified inhospitable treatment by community residents as his greatest challenge. When asked about barriers to his work, Marcel shared:

Well, especially in this community, there are a lot of barriers that get in the way of our work as promoters. Because certain people often see and - and criticize the way or how things are done. Because truly, many people from here say that we, meaning, Horizontes and the promoters, do this for our own benefit. And, as we know, that could be one of the greatest obstacles, that is, when we have people against us. And they don’t see that we do that to help and in cer- in a certain way, when you talk about challenges, there is nothing worse than when you have a person that prevents you from doing your job. Because if it were, for example the road, say it’s too far, ah, it’s dirty, muddy, then you find another - another way or a different road and you wouldn’t go through there. But always, when you have a person or - or you have several people on top of you, that say, ‘No, you do that to gain such thing, or for this, or for a personal benefit. that is the a—the worst that we have seen around here…. some people don’t appreciate our effort. And that is the biggest obstacle that we, as promoters, have.

Sometimes, tensions arose when community members misunderstood the role of the promoter. For example, although none of the participants expressed dissatisfaction with being unpaid volunteers, community members did not always appreciate or understand the promoters’ voluntary status. Emmanuel confided how community residents mistakenly believed that the
promoters were paid for their work. Emmanuel shared, “Some think I get paid, but I am a volunteer. And when they think I get paid, they might be suspicious, or they might say that I only care about the money. But I am a volunteer.” Likewise, Lola encountered similar situations:

You know, there is a well-known phrase used, it’s about dealing with people, and how difficult it can be. And not everyone has the same personality. Being a promoter is voluntary. So, there are people that don’t understand that. They think that it’s a mandatory job. There are times, like, when I am sick, that I cannot come near the patients. And there are patients that, they kind of get upset and say, ‘I sent for you and you - you didn’t come.’ So, I have my - my own issues, which is something not everyone understands. I have other responsibilities and sometimes I have to take care of myself too. And i- it’s one of the challenges

Claudia also encountered situations in which community members believed that the promoters were obliged to offer an unfeasible level of assistance:

Because the situation would come up, where I would to go - go to a home visit and the patient was always unhappy or didn’t feel—not with me but with the organization, because they thought that I had to visit them daily. So, it was a situation that I had to handle well, explain thoroughly to the patient what my role was, what the foundation’s role was, and what his role was.

Claudia’s example underscored how participants learned to navigate conflict in their interactions with others in order to maintain therapeutic relationships. To do so, participants turned to specific strategies they used to ease tension and avoid confrontation. For example, one of the most common ways that participants managed antagonistic encounters with others was to first adopt a sense of calm. Nessa asserted, “First, I stay calm, because sometimes people—there
are people who react… as if to attack, and that is not good. I stay calm and I find the way. There is always a way to keep going.” When discussing her approach to diffusing conflict with patients, Claudia maintained:

So, these are things that sometimes you have to approach calmly, because many of the patients are uncomfortable and they don’t treat you the way they - they should. So, you have to be impartial. It doesn’t matter how the patient acts, you have to be open and willing to listen to the good things, and the bad things the patient has or wishes to say, because one way or another, you have to continue dealing with that patient and you have to provide some quality support.

For Gabriela, difficult relationships were a significant challenge she also encountered in her work. Maintaining cordial relations could take time, but was achievable, as Gabriela noted:

And another ah, challenge is not being able to connect with people. There are people that sometimes have a kind of a strong character, and these are things that become difficult for you, but with the passing of time, working at it, you can reach people.

Gabriela further described strategies that she used to manage difficult relationships:

When you encounter people, ah, as I mentioned already, with strong personalities, and that, ah, it’s always good always to treat people with - find their weak spot. Ah, try to come in, like, from underneath, or something like that. Ah, treat them like they perhaps—or place yourself in their shoes.

Lola also explained how people could become upset with her, and how she navigated the situations to diffuse tensions and reestablish trust:

For example, sometimes, ah, during the medical brigades, ah, the patients get upset and talk to you rudely and that. And I say, ‘Calm down, it—’ And I try to get them water so
they can calm down. I tell them, “What can I do for you to - to change a little bit more?”

So, that is one of the things. If they treat me badly, I try love them back, so they won’t keep - continue down that path.

For Marcel, it was important to disengage from those who were being overtly antagonistic. Additionally, he elaborated on how it was necessary to avoid meeting hostility with hostility. According to Marcel:

I think, it’s ignoring that person, because if you start arguing with them, this could create a conflict… But if I, or any of us, promoters, become as ignorant or as arrogant as them, we will have a disagreement, an argument and in that - in that argument, they could say something that may - that may make us feel offended and we might not be able to—and also respond something inappropriate or talk without thinking and that is why I believe that the best solution that I have been able to find, that when they talk like that, if I am close by, I go home or I go somewhere else, to avoid any conflict.

In addition to managing connections with patients, some participants discussed the importance of maintaining relationships in their home lives. Living in the community in which they worked, participants often found their roles as promoters could encroach or overlap with other life roles. For example, Amelia described how community members frequently stop by her home for help or advice. She shared, “Sometimes they call me, but most of the time they come so I - they come to me. My door is always open.” Claudia also asserted, “They [community residents] are aware that no matter the time, nor the place, that I can help them out, I am available.” Similarly, Rosa stated, “You are always available.” Emmanuel also declared that his community “can always come to me.”
Several participants discussed how they needed to balance personal obligations with their responsibilities as health promoters. Gabriela confided, “I really have to find an equilibrium. Because the work takes time, but I have other responsibilities, friends, family, and other work.” Lola also stated, “I have other responsibilities and sometimes I have to take care of myself too.” During the focus group, Paloma identified how the role of the promoter sometimes created conflict with other responsibilities. She shared:

As promoters we - we face a lot of stress, because we have family, studies, jobs, other responsibilities and also additionally the responsibility of the promoter, which is not, for example one - the promoter is not an hour a day, or in the afternoon. The promoter thing is full-time.

Paloma’s words demonstrated that, while working as a promoter could be a rewarding experience, it could also be a source of stress. Stress could arise from tense relationships with community members, as well as from trying to balance the responsibilities of being a health promoter with personal obligations. Thus, it was important for participants to find strategies to maintain relationships across their life roles.

Findings Related to the Research Questions

The preceding narrative reported findings within the context of three major themes: 1) _mountains to climb_, 2) _changing lives_, and 3) _community connections_. In each of these themes were three sub-themes that I also used to structure the narrative. Findings within each of the major themes directly related to this study’s three research questions. In this section, I discuss how the findings helped illuminate those questions.
Research Question One: How Do CHWs View Their Role in the Community?

Interviewer: Tell me, what does it mean for you to be a health promoter?

Isabella: Oh, a lot of things, sir.

The first research question I asked was, “How do CHWs view their role in the community?”. Findings from all three themes assisted in answering this first question. Within the theme *mountains to climb*, participants identified how the health issues facing their communities motivated them to become promoters and overcome the challenges associated with providing care for others. For participants, promoters were engendered by the needs of their communities. Accordingly, participants saw their role as one that fulfilled an important societal need. During the study, participants represented their communities’ needs by sharing photographs of patients (figure 50), who were the recipients of care. Such photographs highlighted how the role of CHWs existed to serve the community. In this respect, participants viewed their role as an extension of society, and the work of a promoter was dependent and responsive to the social environment in which it occurred.

*Figure 50. A patient receives medications from a promoter- photograph by Amayah*
Additionally, many participants described how the role of a health promoter extended beyond caring for just their communities. Participants often worked in communities other than their own, bringing health care wherever it was needed. As Franchesca said, “Promoters care for many people, anyone who needs it. They don’t care for just one person.” Likewise, Emmanuel asserted, “We will do anything to help those who ask.” In this respect, participants perceived their role as serving a greater good, which became a part of their personal identity. As Claudia claimed, “I am a promoter of any community that I may be in, or at the moment when an, an individual may need my help.”

Furthermore, participants believed that the health promoter role was attached to certain duties. Once they became promoters, participants had a responsibility to fulfill those duties. “I also work for all the people that need me here in the community, because it’s my duty,” Emmanuel shared. Echoing the words of Emmanuel, Marcel stated, “It’s your duty and work.” Similarly, Juana described a photograph of her taking a patient’s blood pressure (figure 20) in terms of her responsibility to her community, saying, “Well, for me it means a lot, because in this way, I am demonstrating for my community, ah, that I can help and not only with my patient, that I have that responsibility.”

Within the second theme, changing lives, participants described the role of the promoter as a community leader, one who has the responsibility to improve the health and well-being of their neighbors. As Claudia noted, “Look, as a promoter, it’s as they used to say, you have to be a leader - you have to be a leader and have, like, that drive.” Some participants also equated the role of a promoter with being a teacher or a guide for patients and communities. As noted in the narrative, the role of leaders, teachers, and guides are all associated with facilitating positive changes in other people’s lives. Accordingly, participants viewed the role of the promoter as a
change agent for their communities, which Rosa exemplified in her photo of a beach crossed with footprints (*figure 15*), stating, “The photo is telling us how we are able to change our patients’ lives.”

Additionally, all participants associated the role of the promoter with specific behaviors. In many ways, participants delineated the promoter role by specific, health-promoting actions. For example, every participant shared photographs of promoters engaged in direct patient care (*figure 51*). Behaviors represented in the photographs included taking blood pressures, measuring blood glucose levels, leading support groups, dispensing medications, and weighing patients. Thus, participants associated promoters with specific, health-related tasks, and their role was to perform those tasks. As Isabella, commented, “The reason that I am a promoter, to provide service for patients.”

Additionally, for many participants, instruments such as a sphygmomanometer and glucometer were symbolic of their work. Much like physicians and nurses are represented by photographs of stethoscopes, the tools that participants used in routine patient care came to represent their role as a health promoter. The pictures by Amelia and Gabriela (*figures 24 and 25*) exemplify how some participants represented their identities as promoters through images of their instruments.
Within the third theme, *community connections*, participants situated their work within a network of societal relationships. Their role was embedded within their social environment, and the connections between themselves and the community were an essential aspect of being a promoter. “I am here in my community,” Rosa noted when discussing what helped her be successful as a promoter. Similarly, Isabella shared, “I am always aware of what’s going on in my community.” Emmanuel further asserted “The community depends on us.” These examples underscored the connections promoters felt between themselves and their communities. Accordingly, many participants shared photographs that represented their connections to other people, such as one that Rosa took, which she felt represented community solidarity (*figure 52*). “See how they are holding hands,” Rosa said. “It represents working together.”
Participants also described how the role of the health promoter extended across their life contexts. Even while at home, they were available for their community. “My door is always open,” Amelia asserted when describing how community members would come to her home throughout the day. “They can always come to me,” Emmanuel stated. Moreover, for Paloma, “The promoter isn’t an hour a day, or in the afternoon. The promoter thing is full-time.”

Additionally, participants recognized themselves not only as promoters, but also as family members, neighbors, and teammates of the organization in which they served. For participants, their status as a health promoter complemented and sometimes challenged their other responsibilities. For example, as a promoter, Isabella learned new skills that she could use to help her family. Isabella stated, “I can better take care of myself and my family now.” Conversely, she also described how the role of the promoter could compete with her responsibilities as a mother. “It becomes more difficult when I have obligations to my family and, I say, I had to take my daughter to see a doctor, but I also have work.” Similarly, Gabriela
noted, “I have other responsibilities, friends, family, and other work.” Thus, participants recognized how being a health promoter affected their other life roles.

Finally, participants recognized that trustworthiness was an essential attribute of being a promoter. Promoters served as confidants for their patients, who shared personal information with promoters. Accordingly, being a responsible person was viewed as a requisite characteristic of the health promoter role. For example, Emmanuel noted, “They [community residents] trust the promoters, that we are there when they have a need.” Likewise, Rosa stated that a promoter is “a person who you can trust.” Nessa attributed community trust to the promoter’s capacity to help, sharing, “They trust you because you have the capacity to help them, you have an expertise that you can share with your community.” Hence, for participants, the responsibilities of the promoter included being a trustworthy person on whom the community could rely.

In summary, across the preceding themes and sub-themes, the stories that participants shared helped illuminate the way they perceived their roles as health promoters. Table 5 summarizes each theme’s contribution to research question one.
### Table 5

_Summary of Thematic Contributions to Research Question One_

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<th>Supporting Quotes</th>
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</thead>
<tbody>
<tr>
<td><strong>Mountains to Climb</strong></td>
<td></td>
<td></td>
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<tr>
<td>1. CHWs exist to fulfill a critical social need.</td>
<td>“I’m a promoter because of my patients, you see?”</td>
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<td></td>
<td>“I saw that it was something necessary, for example, in the communities.”</td>
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<td></td>
<td>“For my community, because I know that there are elderly persons who need it.”</td>
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<td></td>
<td>“The thing that supported me to be a promoter is poverty in communities and for me it's what bare feet represent… that is one of the—of the motivators as a promoter, to know that there are individuals that don’t have access to the clinics, don’t have access to medications because of their poverty, in general, and for me that photo it—it represents that. There is so much need.”</td>
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<tr>
<td>2. CHWs have a duty to their communities.</td>
<td>“First, I have responsibilities as a promoter.”</td>
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<tr>
<td></td>
<td>“It is my duty to help them.”</td>
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<tr>
<td><strong>Changing Lives</strong></td>
<td></td>
<td></td>
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<tr>
<td>1. CHWs are change agents.</td>
<td>“If you are involved in this, you can help this person. You can change their life for the better”</td>
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<td></td>
<td>“I try to help them see how they can change. To lead better lives, and to feel better.”</td>
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<tr>
<td>2. CHW serve in multiple roles associated with change.</td>
<td>“A health promoter is a leader of the community.”</td>
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<td></td>
<td>“I am a teacher.”</td>
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<td>3. CHWs perform specific tasks and behaviors.</td>
<td>“Here I am working as a health promoter. I’m taking my patient’s blood pressure.”</td>
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<td></td>
<td>“They are weighing him. These are some of the tasks we do, and here we have the equipment we need.”</td>
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<tr>
<td><strong>Community Connections</strong></td>
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<tr>
<td>1. CHWs are connected to their communities.</td>
<td>“I am here in my community.”</td>
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<td></td>
<td>“The community depends upon us.”</td>
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<td></td>
<td>“I interact with a lot of people who already lived close to my house.”</td>
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<tr>
<td>2. CHWs are always CHWs.</td>
<td>“My door is always open.”</td>
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<td></td>
<td>“You are always available.”</td>
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<tr>
<td>3. CHWs are trustworthy</td>
<td>“They trust you because you have the capacity to help them, you have an expertise that you can share with your community.”</td>
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</tbody>
</table>
Research Question Two: What Factors Support the Work of CHWs?

Like research question one, findings from each theme helped to illuminate the second research question, which was “What factors support the work of CHWs?”. Within the first theme, *mountains to climb*, participants described how internal motivation was a supportive and necessary factor to succeed as a health promoter. During the focus group, personal characteristics such as “enthusiasm”, “inspiration”, “dedication” and “commitment to work” were identified by participants as key patterns related to support. Most participants described how they were motivated by a sense of duty to their communities, which reflected an intrinsic tendency toward altruism. Furthermore, many participants demonstrated their commitment through stories of how they persevered in difficult situations, using diverse strategies to fulfill their duties as promoters. Notably, their examples reflected intrinsic traits of the promoters themselves, and so suggested that internal sources of support were important factors that sustained participants. Emmanuel exemplified the importance of having the inner determination to succeed, saying, “It gets difficult if you don’t put your will in it, but if you do put your will in it, it doesn’t matter whether it’s raining or if it’s not raining.” During the focus group, one participant described how it was important “not to be locked up, but to reach our goal to satisfy what has to be achieved.” Isabella described how her commitment to being a promoter supported her:

> Some days, I might be tired or might not feel like leaving the house, but I know that this is something that must be done, and I have the dedication to fulfill my duties as a promoter. So, yes, I support myself.

Lola also described how her personal dedication to helping others provided her the needed incentive to persevere:
If you know exactly what you want, which is to continue and if you allow yourself to be
taken away by the challenges, you won’t make it. So, if you are clear on that, okay, I love
helping people, and that is what I want, I am certainly going to run into challenges, but
my goal is to keep helping. So, that motivates you and drives you to continue doing good
things.

Similarly, Claudia described the necessity of perseverance. For Claudia, persistence in the face
of adversity was one of the most important assets a promoter could possess. She explained:

Find strategies to make it easier and although there may be obstacles, you have to
overcome that, but you have to see the other side of it, and see, and if this way is not
going to work for me, I need to find another strategy to make it easier for me.

While discussing environmental barriers, Claudia further stated, “The road does not matter, what
matters is the desire to do the work.”

Additionally, many participants voiced how the natural beauty of their surroundings was
a significant source of support that could renew their personal energies and reaffirm their
commitment. Connecting with nature—whether by visiting the beach, working in a garden, or
taking a walk—provided participants with a way to relax and refocus. Many participants
provided photographs of parks, flowers, animals, beaches, and trees that represented the
tranquility they found in their natural surroundings. Finally, two participants viewed their
spiritual relationship with God as a significant source of support, which was reflected in images
of the natural environment.

Within the second theme, changing lives, several significant factors that supported
participants as promoters were identified. First, helping their communities contributed to positive
emotions and feelings of personal satisfaction for participants, who consistently described how
working as a promoter was a joyful and wonderful experience. Positive feelings associated with the promoter role were perceived as supportive and reinforced participants’ desire to continue serving their communities. Participants took pride in their work, recognizing how behaviors such as providing health education charlas and taking blood pressures could lead to long-term improvement in the health of their communities. For Amelia, caring for others was a deeply rewarding experience that she represented with photographs of direct patient care (figure 53). Amelia shared, “When they feel their blood pressure is high, or their sugar, and they come to me and that feels so good.”

Furthermore, to have impact on the health of others, many participants recognized the pragmatic importance of having the equipment necessary to perform physical assessments such as blood glucose monitoring and blood pressure measurement. Hence, access to material resources was an important source of support. During the focus group, participants described their instruments as “essential” and “vital.” Amayah asserted, “We need our instruments to
measure blood sugar and blood pressure.” When asked about her sources of support, Amelia said, “The instruments that I have.”

Additionally, participants viewed the opportunity for personal growth as a significant benefit of being a promoter. Specifically, participants valued the chance to learn new skills and to acquire better knowledge of health and well-being. Paloma attested, “I thank the Lord, we have had the opportunity of learning things and knowledge that we did not have, and now, thanks to the Lord, we can see it in practice, and help other people that really need us.” Some participants represented the opportunity to learn through the pictures that they took. Gabriela provided an exemplar case (figure 54) of how being a promoter contributed to personal growth through learning, and she was particularly passionate about opportunities to acquire new knowledge:

Being a promoter, you feel like you grow, because one learns a lot of things. Mainly ah, how to lead a healthy life myself, because I have to teach other people, but first, I teach myself. Ah, how, ah, to lead a healthy life. Ah, also, how to maneuver, ah, the teams to treat the patients, ah, know about the medications, ah, try to connect with people. These are things that I learn, so, I feel that - that I learn, so I feel that - that I grow, ah, as I work as a community promoter…we can also research, uh, on our own to keep learning more about what we do and how we can also continue to do it.
As reflected in Gabriela’s words, participants also described how they could use the knowledge they gained to benefit the health of their families and themselves. In another example, Juana stated, “I know a lot more about illnesses such as diabetes and hypertension. And that helps me too, I think, because I can take better care of myself and my family, because I know those things now.” Similarly, Isabella shared, “I can better take care of myself and my family now, you see? I am more capable of doing things now.” Amayah also appreciated acquiring new knowledge, noting, “You learn all these things. I like th—the experience. I like to learn, I like to kno—know. Because I am also hypertensive.”

Working as a promoter also increased the self-efficacy of many participants, allowing them to take better care of their patients. Amayah provided an exemplar of how being a promoter could lead to an increase in self-efficacy, describing how working in a medical brigade increased her self-confidence:

This was my big inspiration… I had never worked on that - in that - in that pharmacy area. I've never worked there before. That was my toughest challenge, because I thought I

Figure 54. “‘We can also research on our own to keep learning more about what we do and how we can also continue to do it’”- Gabriela
wasn't going to do it the way I did. I prayed all night to the Lord, it can’t go wrong, it's going to work out, but it has to work out for me. And I think I did well.

Finally, some participants described how they matured on an emotional level through their work as a promoter. As an example, Marcel discussed how becoming a promoter increased his capacity to empathize with others:

The experience I would like to talk about is, before I was a promoter I did not - did not - did not feel that empathy of feeling someone else’s pain, to put myself in someone else’s place... And that is the most wonderful experience with Horizontes, that I have been more empathetic, by placing myself in - in other- feeling the pain of others, feeling what my people feel.

Under the third theme, community connections, participants provided examples of how community engagement and positive relationships provided them with critical support as promoters. Specifically, participants described several different types of helpful connections with their communities and society at large: relationships with fellow promoters, relationships with their families, relationships with patients and other community residents, and relationships with HHI and visiting health professionals. Participants discussed the reciprocal nature of their relationships, noting how the promoters helped their communities and, in turn, their neighbors showed them gratitude, respect, love, and friendship. Several participants commented that they had increased and strengthened their social connections through their work, a fact that they perceived as beneficial and rewarding. Lola elaborated, “I have gotten to know more people. I have started making new relationships.” Similarly, Rosa shared, “I enjoy being a promoter because I interact with a lot of people who already lived close to my house, but I did not talk to. So, now I—I mean, now I interact with more people.”
Among the supportive connections identified by participants, relationships with fellow promoters emerged as one of the most important. About her fellow promoters, Claudia commented, “I did not know these people and they were able to come and be part of the team...as a team we are able to succeed.” Like Claudia, many of the promoters felt they were part of a team whose members supported each other. During brigades, they helped each other complete necessary tasks, and they provided companionship during stressful times. “We take care of ourselves - we say a little joke and we can laugh,” Juana shared. Similarly, Franchesca asserted, “We are an organization, a team who helps each other. It can be very hard to work on something alone, but with companions, ah, friends, you accomplish much more.”

Additionally, many participants described how they received support from their patients, who were grateful for the care of the promoters. The appreciation and respect they were shown motivated participants to continue in the role of health promoter. Lola shared an example of how patients supported her:

If you go, they receive you with a lot of love and a lot of devotion. If they have, even - if they only have water, they offer you water. If they have, like fruits or something that grows in the outdoors, they offer it to you. Because, just like you go to them with love, they receive you and treat you with lots of devotion and love.

Participants also described how HHI supported the promoters. All participants identified HHI as a critical source of support. As Claudia asserted:

Horizontes provides in its totality the work that they give you, all of the work. It gives you access to communities. It gives you access to materials to bring to your patients. It gives you the knowledge you need to grow as a promoter and as a person.
Participants also explained how receiving recognition from HHI for their work as promoters led to positive feelings and was perceived as supportive. Two participants provided pictures of certificates they received from HHI, which recognized their contributions as promoters.

Furthermore, visiting health professionals who participated in the medical brigades were considered important sources of support. Participants shared how working with nurses, physicians, and pharmacists from international organizations was beneficial, and participants appreciated the opportunity to make connections with these guest humanitarians. Additionally, participants also noted that foreign support was most helpful when it was dependable and sustained. Inconsistent and sporadic support from visiting groups was not seen as beneficial.

Family was another important source of support for many participants, who described how family members provided emotional and practical support. “Grandma is an inspiration,” Amayah shared. Additionally, when she needed to work as a promoter, Amayah was able to leave her children with her grandmother and mother. According to Juana, “My family is a source of support for me. My mother especially. When I have hard moments, she makes it all better. Always. And she likes that I’m doing this. She is proud of my work.” Similarly, Isabella commented that her mother “…likes that I am a promoter, and she always wants what is best for me.” Additionally, Isabella also shared that, “My sister and my mother can help watch when I need to go out in the field for the day.”

Finally, most participants described strategies they used to maintain helpful relationships with others. Some participants shared how they upheld trust between themselves and their communities. For example, Paloma stated “I never like to make promises that I cannot fulfill… I tell the person, I am not making any promises, because tomorrow you are going to say that I lied to you.” Other participants discussed the importance of remaining calm and empathetic when
navigating conflict with patients and other community members. Nessa explained, “First, I stay calm, because sometimes people—there are people who react… as if to attack, and that is not good. I stay calm and I find the way. There is always a way to keep going.” Similarly, Lola commented, “If they treat me badly, I try love them back, so they won’t keep - continue down that path.”

In summary, there were multiple supportive factors identified in each of the themes and sub-themes of the narrative. Table 6 provides a summary of each theme’s contribution to research question two.
### Question Two: What factors support the work of CHWs?

<table>
<thead>
<tr>
<th>Theme</th>
<th>Contribution from theme</th>
<th>Supporting Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mountains to Climb</strong></td>
<td>1. Internal/Personal factors  - Intrinsic tendency toward altruism  - Sense of responsibility  - Determination/willpower</td>
<td>“It is something that must be done and I have the dedication to fulfill my duties as a promoter.”</td>
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<td>2. Comfort of natural surroundings  - Places to relax  - Reflections of God’s work</td>
<td>“It’s my responsibility.”</td>
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<td>“You have to do it for the love you have for - for patients and people, right?”</td>
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<td></td>
<td>“We put the heart in - in what we do and - and that's what motivates us, pushes us forward.”</td>
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<td></td>
<td></td>
<td>“If you do put your will in it, it doesn’t matter whether it’s raining.”</td>
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<td></td>
<td>2. Opportunity for personal growth  - Gaining knowledge and learning new skills  - Growing emotionally</td>
<td>“Nature forms a big part of what moves us.”</td>
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<td></td>
<td>“In the images of the road we can also see that we can look around at the bushes, the beauty that the Lord has put down our path.”</td>
</tr>
<tr>
<td><strong>Changing Lives</strong></td>
<td>1. Positive emotions and personal satisfaction from helping others</td>
<td>“I feel so much joy when I can sit down and figure out how to provide that support.”</td>
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<td></td>
<td></td>
<td>“They come to me and that feels so good.”</td>
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<td></td>
<td>2. Having access to material resources</td>
<td>“Well, it’s literally a sphygmomanometer and a stethoscope. For me personally, that's my source of work.”</td>
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<tr>
<td></td>
<td>3. Opportunities for personal growth  - Gaining knowledge and learning new skills  - Growing emotionally</td>
<td>“Being a promoter, you feel like you grow, because one learns a lot of things.”</td>
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<td>“I have been more empathetic, by placing myself in - in other- feeling the pain of others.”</td>
</tr>
<tr>
<td><strong>Community Connections</strong></td>
<td>1. Supportive social relationships  - Other promoters  - HHI  - Visiting health professionals  - Family  - Patients  - Community</td>
<td>“That is my partner right there. We are supporting each other.”</td>
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<td></td>
<td></td>
<td>“I can see the support that those doctors give us.”</td>
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<td></td>
<td>“Horizontes provides in its totality the work that they give you, all of the work. It gives you access to communities.”</td>
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<td></td>
<td></td>
<td>“The patients gave me the support I needed as a provider…I worry about them and they worry about me.”</td>
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<td></td>
<td>2. Strategies to maintain relationships</td>
<td>“If they treat me badly, I try love them back, so they won’t keep - continue down that path.”</td>
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<tr>
<td></td>
<td></td>
<td>“It’s always good always to treat people with - find their weak spot.”</td>
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</table>
Research Question Three: What Challenges Do CHWs Encounter in Their Work?

Findings from each theme again applied to research question three, which was “What challenges do CHWs encounter in their work?”. Within the theme mountains to climb, participants shared pictures that revealed how the physical environment could create obstacles to their work as promoters. Specifically, inhospitable weather conditions challenged many participants, who had to travel long distances in the heat and rain to see patients. Because none of the participants owned vehicles, their primary means of travel was walking. The roads in many of the communities were rocky, steep, uneven, and unpaved, which contributed to the physical barriers faced by participants (figure 55). Additionally, some participants had to cross rivers that had no bridges or that were polluted with large amounts of refuse. In some cases, participants experienced their own health challenges related to working under such conditions. For example, Amelia confided that she sometimes experienced headaches from the heat. Claudia shared that she only has one kidney and found the long walks as a promoter particularly challenging. Juana shared many pictures of the road, describing how:

Well, for me it means a challenge because, uh, when I have to, uh, do the medical checkups, what it's like to walk from my house to where the patients are, which is pretty much half an hour. And it can be very hot outside. And for me that's stress.
Lola summarized the environmental challenges faced by promoters when she stated:

So remoteness is something - it's one of the difficulties, both to move from one place to another or from one patient to another patient, then really distance is one of the things that - that affects us. Because sometimes it's not easy to, uh, transport us by vehicle, in the sun and all that.

Within the second theme, *changing lives*, participants described how some community residents had difficulty adopting healthy behaviors, and that those difficulties constituted significant challenges for the work of promoters. Participants became promoters to make a difference for their communities by using their expertise to address local health concerns. Accordingly, participants felt discouraged when their efforts of improving the health of their communities were unsuccessful. Participants voiced frustration over how they spent considerable time educating patients only to feel their time was wasted when patients did not follow the recommendations given to them. In many cases, patients would not take prescriptions as prescribed, believing that the medications were not helping them. Rosa provided an example, sharing, “Many times, they [patients] would stop taking
the medications, and instead take a tea, that supposedly, would lower their sugar level.” Nessa found such situations to be discouraging, stating “You go through a lot of trouble to get the medications a person needs for their blood pressure, and then they don’t take them, well, you have accomplished nothing.”

Additionally, community members were sometimes resistant to the information they received during health education sessions. As Paloma shared about her work leading support groups, “There are people that are incredulous, about what you tell them.” In Isabella’s case, community residents ignored her repeated efforts to stop them from throwing trash in the river that bordered the community (figure 56). According to Isabella, “Ninety-nine percent of them don’t listen to what you tell them.” Isabella had grown weary from her attempts to address pollution in her community, which seemed a futile effort.

![Illustration](image.png)

**Figure 56.** “Ninety-nine percent of them don’t listen to what you tell them” - Isabella

Furthermore, some participants described how they sometimes lacked the equipment necessary to help their communities. For example, several participants described how they did not have a sphygmomanometer or a first aid kit. Finally, some participants described how taking on new
responsibilities could also be challenging. For example, Amayah was at first anxious about working in the pharmacy of a medical brigade, sharing:

That was my challenge, because I had never worked on that - in that - in that pharmacy area. I've never worked there before. That was my toughest challenge, because I thought I wasn't going to do it the way I did.

Within the third theme, *community connections*, participants expressed the importance of establishing friendly and supportive relationships with those in their community. Conversely, participants described how residents could sometimes be suspicious or unfriendly toward promoters, which created significant challenges for them. Lack of respect and outward hostility were particularly discouraging for participants. In some cases, community residents believed that participants were being paid for their work as promoters, leading residents to make unreasonable demands of participants. Emmanuel confided, “Some think that I get paid, but I am a volunteer.” Furthermore, Lola shared, “It’s about dealing with people, and how difficult it can be. And not everyone has the same personality. Being a promoter is voluntary. So, there are people that don’t understand that.”

In other cases, residents perceived participants as self-serving and only providing services for financial gain. Given the passion that participants expressed for helping others, the mistrust of some community residents was particularly disheartening. Marcel explained, “Actually, we don’t get anything in exchange for this. But some people don’t appreciate our effort. And that is the biggest obstacle that we, as promoters, have.”

In summary, each of the themes and sub-themes identified in data analysis helped to identify challenges faced by participants in their work as health promoters. Table 7 provides a summary of each theme’s contribution to research question three.
Table 7  
Summary of Thematic Contributions to Research Question Three  

<table>
<thead>
<tr>
<th>Question Two: What challenges to CHWs encounter in their work?</th>
<th>Theme</th>
<th>Contribution from theme</th>
<th>Supporting Quotes</th>
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<tbody>
<tr>
<td></td>
<td>Mountains to Climb</td>
<td>1. Environmental barriers</td>
<td>“I have to go from here to where the last houses are located, and always walking, alone, with the hot sun, you know what I’m getting at.”</td>
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<td></td>
<td></td>
<td>- Terrain</td>
<td>“The streets in my community are not that good.”</td>
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<td></td>
<td></td>
<td>- Distances</td>
<td>“That is the river. I have to go through there to see one of my patients. Ah, it doesn’t look that good, because they’re very ugly, the rivers, are. They are very ugly”</td>
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<td>- Weather</td>
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<td></td>
<td>Changing Lives</td>
<td>1. Taking on new responsibilities</td>
<td>“In the beginning it was kind of hard, because I was a bit shy, I did not want to do it.”</td>
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<td></td>
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<td>2. Lacking material resources necessary to provide care</td>
<td>“Many times not having at hand the necessary tools to be able to help the patient.”</td>
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<td>3. Patients and communities resisting change</td>
<td>“When a patient does not have - he shuts in to only his opinion, then that’s when it becomes a big problem, because when a patient says that he is not going to take the medications.”</td>
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<td></td>
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<td>“Sometimes it’s not even worth it for me to get them the medication. I can get it for them, but if the person is not willing to do it—I mean, for me in that—in that respect, it has been a barrier that - that has—it has costed me a lot as time goes by, to the point where I sometimes say, ‘Wow, what am I to do?’”</td>
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<td></td>
<td>Community Connections</td>
<td>Adversarial/Hostile Relationships</td>
<td>“Because the situation would come up, where I would to go - go to a home visit and the patient was always unhappy or didn’t feel—not with me but with the organization, because they thought that I had to visit them daily.”</td>
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<td></td>
<td></td>
<td>- Community mistrust</td>
<td>“Some think I get paid, but I am a volunteer. And when they think I get paid, they might be suspicious, or they might say that I only care about the money. But I am a volunteer.”</td>
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<td></td>
<td></td>
<td>- Community misunderstanding</td>
<td>“Well, especially in this community, there are a lot of barriers that get in the way of our work as promoters. Because certain people often see and - and criticize the way or how things are done. Because truly, many people from here say that we, meaning, Horizontes and the promoters, do this for our own benefit.”</td>
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Summary

In this chapter, I presented the findings from a qualitative study that used a PAR method known as photovoice to explore the experiences and perceptions of CHWs working in a region of the D.R. known as Montellano. After analyzing the data using thematic analysis, I identified three major themes underpinning the findings. The first theme, *mountains to climb*, was embodied by participants’ stories of how they persisted in their journeys as health promoters while overcoming barriers to fulfill the needs of their patients and communities. The second theme, *changing lives*, encompassed the impact that participants had on the lives of the people in their community, as well as their own lives. Additionally, the challenges with achieving meaningful change were included in this theme. The third theme, *community connections*, comprised the relationships and interconnectedness between participants and their social environment.

Findings from each of the themes were used to answer the three research questions posed in this study. Table 8 provides a summary of thematic contributions that illuminated each research question.
## Summary of Thematic Contributions to Research Questions

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Answer to Research Question</th>
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<tbody>
<tr>
<td><strong>How do CHWs view their role in the community?</strong></td>
<td>1. CHWs exist to fulfill a critical social need.</td>
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<td></td>
<td>2. CHWs have a duty to their communities.</td>
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<td></td>
<td>3. CHWs are change agents.</td>
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<td></td>
<td>4. CHW serve in multiple roles associated with change.</td>
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<td>5. CHWs perform specific tasks and behaviors.</td>
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<td>6. CHWs are connected to their communities.</td>
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<td></td>
<td>7. CHWs are always CHWs</td>
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<td></td>
<td>8. CHWs are trustworthy</td>
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<tr>
<td><strong>What factors support the work of CHWs?</strong></td>
<td>1. Internal/Personal factors</td>
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<tr>
<td></td>
<td>- Intrinsic tendency toward altruism</td>
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<tr>
<td></td>
<td>- Sense of responsibility</td>
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<tr>
<td></td>
<td>- Inner strength/willpower</td>
</tr>
<tr>
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<td>2. Comfort of natural surroundings</td>
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First, participants viewed the role of the promoter as arising from the health problems of their communities. For participants, promoters existed to fulfill a critical social need. Accordingly, participants saw their role as change agents in their communities. They described the function of the promoter alternately as a leader, a guide, a teacher, and a confidant. In each of these capacities, trustworthiness was an important characteristic of the promoter role.

Furthermore, participants associated their role with specific behaviors and tasks, such as taking blood pressures and measuring blood glucose levels. Consequently, they often used instruments associated with health care—such as a sphygmomanometer—to symbolize the role of the health promoter. Still, for participants, the health promoter role embodied more than the tasks performed when delivering health care. Instead, being a health promoter became part of their larger identity as human beings.

Considering factors that supported participants in their role, intrinsic factors such as willpower, a sense of duty, determination, and commitment to their communities were identified as important, internal sources of support. Participants demonstrated their commitment to their work by describing multiple strategies they used to succeed. Additionally, the positive emotions associated with their work as promoters was identified as another factor that sustained participants. Participants were also supported by opportunities for personal growth, which increased self-efficacy, provided opportunities for learning new knowledge and skills, and afforded participants the chance to fulfill their aspirations to serve others.

Participants also described important external factors that supported their work. For example, participants also discussed how retreating to natural settings, such as the beach or a garden, could reaffirm their commitment to their work. Furthermore, having access to material resources, such as sphygmomanometers and blood glucose machines was perceived as essential
by most participants. Additionally, one of the most important external factors that supported
participants was establishing positive, reciprocal relationships between fellow promoters, their
patients and communities, HHI, visiting health care professionals, and the participants’ families.
To maintain these relationships, participants relied on interpersonal strategies to balance
responsibilities and to successfully navigate adversarial interactions.

Reflecting on the challenges that participants encountered, the physical environment
created obstacles for their work. Hot days and long distances were some of the most common
environmental barriers mentioned by participants. Furthermore, participants sometimes lacked
the material resources necessary to accomplish their work. At times, a few participants also
expressed how taking on new responsibilities could be challenging. Additionally, participants
described the frustration they experienced when patients did not follow the recommendations of
promoters. Participants often felt that their time was wasted when the interventions they provided
were disregarded. Similarly, participants frequently faced situations in which community
members were hostile, suspicious, or unfriendly to the promoters. Community misunderstanding
of the role of the health promoter often fueled negative encounters between participants and
community members.
Chapter 5: Conclusions and Recommendations

In this chapter, I discuss the findings from a study that explored the experiences and perceptions of CHWs living and working in the northern region of the D.R. known as Montellano. I begin the chapter by providing an overview of the study. I next interpret the study’s major findings and relate them to past research of CHW experiences in LMICs. I also situate the findings within the context of the study’s guiding theoretical frameworks. Finally, I discuss the relevance of the findings before concluding with recommendations for future research.

Study Overview

The purpose of this study was to explore the experiences and perceptions of CHWs living and working in a region of the D.R. known as Montellano. In doing so, I sought to promote a deeper understanding of how these CHWs view their role in society, as well as what factors promote or impede their efforts to improve the health of their communities. To my knowledge, there are currently no studies that explicitly explore the perspectives of CHWs in the D.R., and so this study addresses a significant gap in current CHW-related research.

While CHWs have been identified as vital members of the global health care workforce, past studies have suggested that long-term sustainability of CHW programs is difficult to achieve (Perry et al., 2014). Previous research has also demonstrated that CHWs face significant barriers to their work, which can impede their ability to provide appropriate care for their communities (Pallas et al., 2013). Accordingly, it is my contention that, in order to ensure the success and sustainability of CHW programs, we must first gain insight into the experiences of CHWs themselves. To that end, I sought to answer the following research questions:
1) How do CHWs view their role in the community?

2) What factors support the work of CHWs?

3) What challenges do CHWs encounter in their work?

To answer the preceding questions, I used a qualitative research design that was grounded in the PAR tradition. Specifically, I employed a PAR method known as photovoice, in which participants took photographs that represented their experiences as CHWs. Using digital cameras that I provided, each of the 13 participants had three weeks to take pictures that addressed the study’s three research questions. Once they had completed the photography assignment, participants took part in individual, semi-structured interviews, during which I asked open-ended questions about their experiences as CHWs. As part of the interview, participants shared their photographs with me, and we discussed how each image related to their lives as CHWs. At that time, participants chose three to four photographs to share with the other participants at a focus group session. During the focus group, participants viewed each other’s photographs and discussed how the pictures illuminated understanding of their roles as CHWs and the factors that influenced their work. At the end of the session, participants identified common patterns that they recognized from reviewing the images and participating in the group discussion.

Data collected during the study were analyzed using Braun and Clarke’s (2006) six-step approach to thematic analysis. Additionally, I employed the qualitative research software, Atlas.ti (2018), version 8 for Windows, to facilitate the process of data analysis. Data were coded using a three-step approach first described by Glaser and Strauss (1967). During analysis, codes were identified, linked and eventually collapsed into three major themes: 1) mountains to climb, 2) changing lives, and 3) community connections. Within the theme mountains to climb participants described their persistence to overcome environmental barriers in order to meet the
needs of their patients. In the theme *changing lives*, participants shared how working as CHWs had positive impact on their communities, as well as their own lives. Finally, the theme *community connections* encompassed supportive relationships between the participants and their social environment as well as how they maintained those affiliations. Findings from each theme were used to illuminate the study’s three research questions.

With respect to question one—how do CHWs view their role in the community—participants framed the role of the CHW in several ways. First, participants described how their purpose was to fulfill a societal need that arose from the impoverished conditions of their communities. In this respect, CHWs viewed the role in terms of its social function. Accordingly, participants perceived CHWs as inseparable from the communities in which they worked. Second, participants delineated their positions as CHWs by the tasks they were assigned to perform. For participants, acts such as taking a patient’s blood pressure symbolized the work of the CHW. Thus, participants characterized CHWs by expected role behaviors. Third, participants shared their beliefs that CHWs were leaders who guided their communities to better health. The leader role afforded participants the respect of their communities, but it also conferred significant social obligations to participants.

Considering question two—what factors support the work of CHWs—participants described several internal and external support systems. Internal sources of support included a dedication to their communities and a commitment to altruistic endeavors. Many participants described how caring for other people was an innate part of their character. Additionally, the personal satisfaction that participants received from their work as CHWs was a supportive factor that motivated participants to persist in their roles as health promoters. Similarly, participants
described how serving as a CHW contributed to significant personal growth, which was perceived as a beneficial aspect of being a CHW.

Extrinsic support systems were also recognized by participants as vital to their success as CHWs. External sources of support included several positive social connections. These connections included relationships with other promoters, the sponsoring non-governmental organization (NGO), visiting health professionals, family members, and the community members for whom they provided health services. Additionally, external support systems included the monthly training sessions and the health equipment provided by the NGO. Finally, several participants discussed how they derived solace from the natural environment, which provided a way to renew personal energies during stressful times.

Considering the third question—what challenges to CHWs encounter in their work—the challenges encountered by participants were mainly from external sources. For example, participants explained how inhospitable environmental conditions challenged their efforts to provide care in their communities. Extreme temperatures, long distances, rainy weather, and steep, uneven roads were identified as significant environmental barriers. Furthermore, participants voiced their frustration when community members did not adhere to the medications or advice given by the CHWs. Many participants identified patient non-adherence as their greatest challenge. Finally, negative relationships with community members, who sometimes misunderstood the role of the CHW, were a significant challenge identified by most participants.

Although the literature review suggested that long-term sustainability of most CHW initiatives in LMICs has not been demonstrated, I found that the participants in this study were part of a program that had achieved considerable longevity. The program began in 2009, and two of the participants had been serving as CHWs since its inception. Two other participants had
served as CHWs for over five years. Overall, participants expressed satisfaction with their work as CHWs. This finding suggests that the support participants received as CHWs outweighed the challenges they faced in their work.

Discussion of Findings

In this section, I review the major findings of the study and connect them back to the review of literature presented in chapter 2. Points of agreement and divergence with previous studies are discussed. At the end of the section, I further relate the findings to the theoretical frameworks of SCT role theory, and Freire’s theory of critical pedagogy.

The Role of the CHW: Leading Communities to Better Health

Defining what it means to be a CHW has been a challenge for researchers, and a consensus on the definition of a CHW has remained elusive (Mundeva et al., 2018). Community health workers are an exceptionally diverse class of service providers, and so generalizations about what constitutes a CHW are difficult. There is an overall consensus that CHWs are typically laypersons with minimal or no formal training in health care who provide some kind of basic health services for their communities (Bender & Pitkin, 1987; Lehmann & Sanders, 2007). However, the types of services they provide vary significantly from community to community. Furthermore, while many studies have centered on the work that CHWs perform, far less research exists that explores how they conceptualize their role (Ramukumba, 2019). Confusion and misunderstanding over their role as CHWs can deprive them of much needed support (Tulenko et al., 2013). Accordingly, it is important to consider how individual CHWs view their work in order to gain a deeper and more holistic understanding of the way their perceptions influence role formation and performance.
Within the context of LMICs, current CHW programs exist primarily to extend health care services for underserved communities and are therefore shaped by the specific needs of the societies in which they exist (Lehmann & Sanders, 2007). This view of CHWs echoes the Alma-Ata declaration, in which they were identified as vital players in ensuring primary care for impoverished populations (WHO, 1978). Consistent with current literature on CHWs, participants in this study were laypersons who received informal health training from a non-government organization (NGO) known as Health Horizons International (HHI). The trainings received by participants focus on chronic health conditions, which are particularly prevalent in communities that surround Montellano. Participants serve in one of two programs that are offered by HHI: the Chronic Care Program (CCP) or the Healthy and Happy Program (HHP). Those serving in CCP deliver community-based, chronic disease management for patients living in their community. Responsibilities include health monitoring, medication dispensation and supervision, and when necessary, referrals to higher levels of care. Community health workers assigned to HHP primarily provide health education in a group setting for people living with, or at risk for, chronic diseases. Education topics include healthy eating, smoking cessation, exercise, and medication management.

Regardless of their assigned program, all participants articulated that their purpose as CHWs was to mitigate the significant health disparities of their communities, which existed primarily because of the impoverished conditions in the Montellano region. During our conversations, participants frequently shared how there was a critical lack of health resources and inadequate health care access for poor residents of their communities. Consequently, participants shared how they became CHWs out of a desire to improve the health of people living in their communities. As Claudia shared, “We serve our communities, always first”.
During the focus group, participants described the CHW in terms of personal attributes such as “dedication”, “commitment”, and “love”. From Gabriela’s perspective, the role of the CHW was essential: “…it has to be done - you have to do it for the love you have for - for patients and people, right?”. Throughout our conversations, every participant shared this love for their communities as well as an internal drive to help those in need. In this respect, a commitment to altruism and a dedication to community appeared to be defining characteristics of CHWs for all participants.

Loyalty to community was reflected in the first theme, *mountains to climb*, in which participants shared stories of their perseverance to overcome environmental barriers to meet the needs of their communities. This commitment to altruism appeared to be an intrinsic attribute of all participants. Many participants described how they were already engaged in helping behaviors in their community prior to joining the CHW program. Furthermore, most participants were recruited to become health promoters after their own efforts to help their communities were recognized by other CHWs working in the area. Several participants shared how they had taken care of others all their lives, and how they always had a desire to help those in need. For some, the inspiration to help others was passed down to them by their parents and grandparents. Consequently, for many participants, the CHW role was a way in which they could fulfill a personal desire to care for others. Consistent with this perspective, past research demonstrated that a commitment to altruism was a common characteristic in CHWs (Dageid, Akintola, & Sæberg, 2016; Javanparast, Baum, Labonte, & Sanders, 2011; Thatill et al., 2019). Indeed, many programs rely on altruism as the primary motivator to recruit and retain CHWs (Swartz & Colvin, 2014). Moreover, the selection of appropriate individuals is critical to the success of CHW programs (Campbell & Scott, 2011), and so the personal traits of potential CHWs are
important to consider. For participants in this study, the caring behaviors associated with being a CHW aligned with their personal ideals, and this congruency between individual values and role expectations appeared to enhance role performance and satisfaction.

Relatedly, most participants also mentioned that being a trustworthy person was an essential characteristic for a CHW. As their communities relied on CHWs for help, being a dependable person allowed participants to establish trust to better care for those in need. Nemcek and Sabatier (2003) asserted that CHWs must be trusted community members. Furthermore, the trust that care recipients place in CHWs can directly influence the choices they make regarding their health care, as well as their openness to adopt healthy lifestyle changes (Nxumalo, Goudge, & Manderson, 2016). Conversely, mistrust can be a significant barrier to successful implementation of CHW services (Geldsetzer et al., 2017). In this study, participants clearly recognized the central role that trust played in their interactions with community residents, and subsequently portrayed CHWs as people that communities could rely on for care.

Associated with caring for their communities, all participants discussed the importance of the health interventions they provided. Thus, a major finding from this study was that participants associated the role of the CHW with the health-promoting tasks they performed, such as assessing blood pressure and measuring blood glucose levels. Moreover, many participants used instruments such as sphygmomanometers and stethoscopes to symbolize the role of the CHW. In this manner, participants came to view the role in terms of specific behaviors, a perspective that was task-focused and circumscribed by a set of assigned duties. The tendency to define the CHW role in terms of specific tasks has been documented in previous research (Ingram et al., 2012; Lewin et al., 2005; South, Meah, Bagnall, & Jones, 2013). To illustrate, Taylor, Mathers, and Parry (2018) used the core tasks that CHWs perform as a major
way of structuring a theoretical CHW taxonomy. The researchers described how interviews with 43 CHWs across four case studies led to the identification of discrete role characteristics, which included specific activities that were expected of their role. Consistent with these findings, participants in this study related the CHW role with explicit, health-promoting activities, which were delegated to them by HHI. This finding likely reflects the current trend of task shifting discrete health services in LMIC communities from highly skilled health professionals to minimally trained CHWs. Task shifting of rudimentary health care has been viewed as a cost-effective strategy to improve workforce capacity and extend health care services in underserved communities with fragile health care systems (Mundeva, et al., 2018). Interestingly, it appears that task shifting contributes significantly to the process of role identity formation among CHWs in this study, who associate their status with the tasks delegated to them.

Yet the tendency to see CHWs in terms of the interventions they provide gives a limited and incomplete view of the role they play. In this study, being a CHW meant more to participants than the tasks they performed for their communities. Participants in this study viewed their position as flexible and responsive to their communities’ needs. The roles they played were contingent on the context of the situations they encountered and not necessarily bound by assigned tasks. In some cases, community members needed education, while in others they needed a person on whom they could confide. Accordingly, participants alternately framed the CHW role as a leader, teacher, guide, and confidant. These findings suggest that the way in which participants viewed their role was adaptable and fluid, a trait that has been considered advantageous for community-based health interventions and characteristic of successful CHWs (Lloyd & Thomas-Henkel, 2017). The multiple roles and identities that CHWs can perform likely contributes to their effectiveness as community-level providers (Rafiq et al., 2019).
Although participants in this study played many roles as CHWs, their overall purpose in each was the same: to promote positive change in the health of individuals and communities. Consequently, all participants saw themselves as change agents for their communities.

“Changing people’s lives” was one of the common themes that participants identified during the focus group, and every participant shared how facilitating lasting change was a meaningful and fundamental part of the CHW role. Making a difference in other people’s lives was further reflected in participants’ stories of their efforts to improve health and quality of life throughout their communities. Consistent with this view, Austin-Evelyn et al. (2017) reported that South African CHWs working in primary health also identified themselves as community change agents and felt deep satisfaction when they were able to catalyze lasting improvements in the health of others.

As champions of change, participants in this study further conceptualized the CHW role as that of a community leader. By taking a leadership role, participants were better able to actuate meaningful improvements for individuals and communities. “A health promoter is a leader of the community”, Emmanuel asserted. Likewise, for Lola, “Being a promoter is like being a leader at the head in—in your community”. The perception of CHWs being community leaders is a compelling perspective that was not evident during a review of current CHW-related literature. While the importance of effective government and NGO leadership to achieving long-term sustainability of CHW programs has been previously identified (Musoke et al., 2019; Schneider, 2019; Tulenko et al., 2013), little has been said about the CHW in terms of a leadership role. Moreover, the study by Taylor et al. (2018), which sought to elucidate the defining characteristics of CHWs, did not include leadership as a role characteristic, although
activism and advocacy for their communities was considered a common attribute. Accordingly, further exploration of CHWs in terms of their potential for leadership might be warranted.

From their experiences, participants in this study disclosed two major implications of being community leaders. First, they discussed how becoming a CHW meant accepting specific responsibilities. As leaders, they served the needs of their communities with the knowledge and skills they gained through their CHW training. Although many of their duties were delineated by the tasks delegated to them by HHI, participants also expressed an overriding social and moral responsibility that came from being a community leader.

Additionally, participants implied that being a CHW leader conferred an elevated community status, which was reflected in the respect and deference that community members showed them. The perspective that CHWs hold a higher or more esteemed status is consistent with the belief that CHWs are leaders in the community, as leadership positions are typically associated with an elevated social or organizational position. Moreover, an elevated community status has been a common factor recognized in past studies as a source of motivation that influences CHW identity (Abbey et al., 2014; Alam, Tasneem, & Oliveras, 2012; Glenton et al., 2013; Greenspan et al., 2013; Strachan et al., 2015; Turner & Reynolds, 2010; Witter et al., 2019).

Another significant finding from this study was that participants viewed their CHW position as an extension of themselves, and that it was not always easy to separate their personal identities from their lives as CHWs. Often, the roles overlapped. Participants were embedded in their community, often having strong, personal connections to those for whom they cared. Community embeddedness is a key characteristic of CHWs that contributes to an “insider” identity and facilitates positive, trusting relationships between CHWs and their communities.
In this study, participants asserted that they were always available for their communities, whenever and wherever there was a need. Some participants shared how community residents would come to their homes for assistance at any hour of the day. For most participants, the role of the CHW became a part of their personal identity. As Paloma stated, “the promoter thing is full-time”. For Franchesca, “We are always promoters and extend our hands to all in need”. This finding is consistent with previous research, including a recent study of CHWs in Tanzania, which also demonstrated significant overlap between the personal and professional identities of CHWs (Rafiq, et al., 2019).

**Internal and External Support Systems**

Providing health care with limited resources and minimal training can be a challenging endeavor, and so it is important to explicitly identify sources of support that can alleviate some of the burden associated with being a CHW. Factors that are beneficial for CHW programs have been previously categorized as intrinsic, or personal, characteristics of CHWs, and external, or environmental, sources of support (Thattil et al., 2019). Common internal motivators include a commitment to altruism, satisfaction gained from caring for others, experiences of personal growth, and development of a new social identity (Strachen et al, 2015, Thattil et al., 2019; Turner & Reynolds, 2010). Common external sources of support for CHWs include improved connections with community members, positive relationships with NGOs and other supporting organizations, opportunities to expand social networks, access to material supplies, regular health-related training, and financial incentives (Dageid, et al., 2016; Okuga, Kemigisa, Namutamba, Namazzi, & Waiswa, 2015). Both internal and external sources of support are necessary to sustain CHW programs (Thattil, 2019). Still, internal motivators and external
support systems are often intertwined, and it is important to consider the interactions that exist between them, since they often overlap in complex ways (Swartz & Colvin, 2014).

Participants in this study identified internal and external factors that supported and motivated them as CHWs. Considering intrinsic factors, many of the characteristics that participants considered essential attributes of the CHW role were also perceived as significant sources of internal support. This finding likely reflects a beneficial congruency between participants’ values and the expectations of the CHW role. For example, within the first theme, *mountains to climb*, participants described how the needs of their communities motivated them to overcome environmental obstacles to deliver health services to those in need. In doing so, participants demonstrated a tenacity and commitment to the responsibilities of the CHW role. While participants described challenges to their work, they chose to focus on their capacity to overcome barriers rather than the barriers themselves. Claudia provided an exemplar when she shared, “The importance is to get to the patient, because if we limit ourselves by that - because of that obstacle, then we cannot give a quality service, we cannot improve the quality of life for that person, yes?” Thus, dedication to the community and the CHW role was viewed as a significant source of support. Additionally, one of the strongest personal motivators that participants described was an altruistic dedication to improving the lives of fellow community members. Every participant shared how they preserved as CHWs because they desired to help others. Consistent with this finding, several past studies have identified altruism as a significant motivator of CHWs, and a commitment to helping others as vital for CHW success (Dageid, et al., 2016; Javanparast, et al., 2011; Ramirez-Valles, 2001; Swartz & Colvin, 2015; Thatill et al., 2019).
Relatedly, participants described how they derived personal satisfaction from caring for others in their community, which motivated them to continue as CHWs. Although participants became CHWs to make a difference for their communities, they found significant personal benefit for themselves. Participants valued the opportunity to help others and seeing the results of their work gave them feelings of joy and contentment. The happiness they experienced from their successes as CHWs further motivated them to continue in their work. Personal satisfaction has been shown to be a significant factor influencing CHW retention across a number of LMIC settings (Mpembeni et al., 2015; Okuga et al., 2015; Ramirez-Valles, 2001; Thattil et al., 2019). Accordingly, it would be beneficial to consider ways of increasing personal satisfaction among CHWs. For example, considering that CHWs derive satisfaction from their successes, NGOs and other organizations that track community outcome measurements could share findings with CHWs, who would then have tangible evidence of the impact of their work.

Experiences of personal growth were another significant source of support identified by participants. Participants described how they evolved through their work, acquiring more empathy and a stronger appreciation for the health needs of others. Additionally, participants discussed how they gained new knowledge and increased self-confidence through their practice as promoters. Serving as a CHW can be a transformative experience, by which individuals can attain an enhanced self-image and a new sense of identity (Mahajani et al., 2018; Squires & O’Brien, 2012). Findings from this study reinforced the transformative potential of the CHW role, as all participants shared stories of personal growth related to their work. Notably, while personal growth is considered an internal process, participants described how external factors influenced their transformation. For example, most participants acknowledged the monthly health trainings provided by HHI as a significant contributor to personal change. This finding
reinforces the interplay between internal and external factors, and how they can work synergistically to impact the experiences of CHWs.

Considering extrinsic influences, participants drew on several external sources of support, the majority of which were social connections. Hence, the final theme, *community connections*, embodied the essential role that social networks played in promoting the work of CHWs. Past research has consistently demonstrated that positive societal connections are crucial to the success of CHW programs (Javanparast et al., 2011; Mpembeni et al., 2015; Okuga et al., 2015; Singh, Cumming, Mohajer, & Negin, 2016; Thattil et al., 2019). Strong community relationships can positively influence internal motivators and contribute to CHW satisfaction and retention (Mpembeni et al., 2015). Furthermore, supportive partnerships can mitigate the lack of material and financial incentives, which might not be feasible for many CHW programs to supply (Singh et al., 2016).

In this study, participants identified multiple forms of social support. First, relationships with fellow promoters were seen as beneficial, and most participants acknowledged that being a part of a team helped them be successful as CHWs. Some participants described how working alongside a teammate brought an element of fun to their work. Other participants discussed how they could rely on fellow CHWs for assistance in accomplishing specific tasks, such as managing complex patient care in medical brigades. Team dynamics that contribute to a spirit of collaboration and respect can significantly influence the success of volunteer groups such as CHWs (Franklin, Bernhardt, Lopez, Long-Middleton, & Davis, 2015). Consequently, providing opportunities to strengthen feelings of camaraderie among CHWs could be an important strategy for increasing CHW satisfaction and retention.
Additionally, the sponsoring NGO was a significant source of external support. Health Horizons International provided access to medications and equipment for patient monitoring, as well as regular trainings and reimbursement for expenses incurred from CHW-related activities. They also recognized the CHWs at group gatherings, during which they were presented with certificates of appreciation. Participants were quick to describe how they could go to HHI with any of their concerns, and that the executive staff of the NGO would do their best to address those issues. Organizational structure and support have consistently been shown to be a critical factor influencing the success of CHW programs around the world (Lehmann & Sanders, 2007; Mundeva et al., 2018; Pallas, 2013). Beneficial practices of supportive organizations include listening to CHWs, providing them with appropriate supervision, including them in the decision-making processes, and supplying them with the materials and training necessary to fulfill their duties (Grossman-Kahn et al., 2017; Mpembeni et al., 2015; Naidoo et al., 2018; Okuga et al., 2015; Payne, Razi, Emery, Quattrone, & Tardif-Douglin, 2017). In contrast, organizations that devalue or marginalize CHWs have been shown to be significant barriers to CHW program success (Pallas et al., 2013). In one study, CHWs in Kenya described how the NGO staff were condescending and treated CHWs unfairly, which led to significant program attrition (Olang’o et al., 2010). For participants in this study, HHI appeared to offer appropriate support in a way that communicated the organization’s gratitude for the CHWs. In turn, participants voiced their appreciation for the patronage given by HHI.

Similarly, participants shared how they valued the support of visiting physicians, nurses, and pharmacists who participated in monthly medical brigades that brought medications and other health services to the participants’ communities. One participant discussed how seeing a physician return to the brigades throughout the years was particularly beneficial. Another
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mentioned that the support of visiting professionals was most beneficial when it was consistent. Less helpful was erratic aid offered by humanitarian groups that came to the community once or twice and never returned, which participants viewed as unpredictable and unsupportive. Such inconsistent support is not only unhelpful, it can potentially do more harm than good, because communities can come to rely on assistance that is not forthcoming (Decamp, 2007). As Levi (2009) argued, “How valuable is it to have itinerant providers, when the kind of care that is being provided will not be continued, and no supportive care will be available” (p. 96). Therefore, rather than assume that their actions are beneficial, nurses and other humanitarian workers should consider the ethical complexity that surrounds short-term medical outreach (Decamp, 2007).

Although participants valued relationships with other health care workers, additional beneficial connections were also evident. Specifically, participants unanimously recognized their communities and patients as essential sources of support. This finding highlights the reciprocal relationship that CHWs have with their communities. While participants provided their communities with much-needed health services, community residents demonstrated their appreciation by showing the CHWs respect and gratitude in the form of kind words, smiles, or small gifts of food or drink. The respect given by the community aligned with participants’ perceptions that they were community leaders, and this congruency appeared to increase internal motivation in participants. Past studies have demonstrated that community support and respect are critical to the success of CHW programs (Dil et al., 2012; Olang’o et al., 2010; Naidoo et al., 2018; Thattil et al., 2019). The extent to which communities understand and accept the role of CHWs is directly related to the sustainability of CHW programs (Pallas et al., 2013). Participants in this study noted that the appreciation they were shown by community members bolstered
feelings of personal satisfaction, thereby increasing their internal motivation to continue their work. Consequently, building and maintaining positive relationships with communities is an important consideration for CHW programs (Naidoo et al., 2018). Accordingly, in order to improve sustainability, strategies to enhance community understanding and buy-in for CHW programs are important to consider.

In addition to support from community members, many of the participants described how their families were critical to their success as CHWs. For some participants, family members encouraged them to become CHWs. For others, family members took on additional responsibilities at home, such as childcare or household chores, so that participants had the time to perform their CHW duties. Family support is a common factor that previous studies have identified as beneficial for CHW programs (Dageid et al. 2016; Mahajani et al., 2018; Thattil et al., 2019). The extent to which family members support a CHW’s efforts can strongly influence CHW retention (Tshering, Tejativaddhana, Briggs, & Wangmo, 2018). Therefore, individuals and organizations working in community outreach might consider how to better engage the families of CHWs as partners and supporters of CHW initiatives.

As a final source of external support, the majority of participants in this study described how the monthly trainings offered by HHI were essential to their success as CHWs. Participants valued opportunities to learn new skills and gain new knowledge. The information acquired through regular training sessions provided participants with the means to positively influence their communities’ health outcomes, which further supported their identity as community change agents. Additionally, participants described how learning new things increased their self-efficacy and contributed to personal growth and satisfaction. Some participants shared that they were able to use their new knowledge to more effectively care for themselves and their families.
Furthermore, many participants described how they valued learning for learning’s sake, and that acquiring new knowledge was a deeply satisfying experience. Gaining new knowledge and skills can be an empowering experience for CHWs (Cupertino et al., 2015; Kane et al., 2016). Past research has demonstrated how CHWs can use their new abilities and information for both personal and professional development (Dageid et al., 2016; Mahajani et al., 2018; Naidoo et al., 2018; Pallas et al., 2013; Thatill, et al., 2019). Accordingly, consistent and robust trainings should be prioritized as a key element of CHW program design.

**Challenges to Overcome**

In addition to supportive factors, past studies have demonstrated that CHWs face significant challenges to their work, and that the stresses associated with providing care for their communities can lead to CHW burnout and attrition (Akintola et al., 2013; Gau et al., 2013a; Gau et al., 2013b; Mundeva et al., 2018; Nkonki et al., 2011; Van Dyk, 2007). Common barriers faced by CHWs include lack of remuneration for their services, poor community and family support, emotional distress associated with caring for sick individuals, shortages of material resources, lack of respect from communities and governing organizations, and inadequate training (Dil et al., 2012; Mays et al., 2017; O’lango et al., 2010; Pallas et al., 2013; Puchalski Ritchie et al., 2012; Tilahun et al., 2017).

Consistent with previous studies (Dil, 2012; Pallas et al., 2013), lack of respect and poor relationships with community members was one of the most significant challenges encountered by participants in this study. Similarly, a study set in rural Uganda revealed that poor treatment by community residents was one of the most common barriers reported by CHWs (Mays et al., 2017). Importantly, lack of community respect or a poor community fit can be a significant source of demotivation for CHWs that can contribute to program failure (Dil et al., 2012; Pallas
et al., 2013). Participants in this study felt discouraged when they were greeted with hostility or suspicion by community residents. In some cases, community members viewed CHWs as self-serving. In other instances, participants described how patients who were suffering sometimes reacted with anger when they were offered assistance. As previously noted, participants viewed themselves as leaders in their community, who were generally respected for the services they provided. Hence, being met with antagonism by community members conflicted with their perception of the CHW role and challenged their internal motivation to serve the community.

Interestingly, many participants also described how they became discouraged when community residents did not adhere to the advice or instructions given to them by CHWs. Several participants shared stories of how patients did not adhere to medications or did not make recommended lifestyle changes. As participants viewed themselves as community change agents, they became disheartened when the expected changes did not occur. A study by Dil et al. (2012) also discovered that CHWs could become discouraged when communities did not participate in recommended health-promoting activities.

Notably, patient adherence to treatment plans is an important topic in contemporary health care. Originally, adherence was described as “compliance”. However, as the importance of patient autonomy became increasingly recognized, the term compliance fell out of favor due to its paternalistic connotation (Felzmann, 2012). Compellingly, the stories that participants shared of patient non-adherence, and the frustrations they experienced in those situations, suggest that CHWs might hold paternalistic attitudes toward their patients. Thus far, the concepts of paternalism in CHWs has not been examined, and so further investigation into this phenomenon may be warranted.
Another major finding of this study was that the physical environment often posed a significant challenge for most participants. Uneven roads, long distances, muddy riverbeds, and hot temperatures were some of the obstacles participants routinely encountered while working in the community. Participants described these physical barriers as an inevitable part of their work, that had to be endured and overcome. The difficulties posed by physical terrain have been identified in past studies as inhibitors for CHWs (Dynes, Hadley, Stephenson, & Sibley, 2015; Cobbing, Chetty, Hanass-Hancock, and Myezwa, 2017). Accordingly, investigating strategies to mitigate the negative effects of environmental barriers for CHWs would be beneficial.

Considering the challenges discussed by participants, it is noteworthy that fewer barriers were identified than sources of support. Furthermore, participants were quick to describe strategies they used to overcome the obstacles they encountered. In this respect, it appears that, for these CHWs, supportive factors outweighed the challenges they faced. As previously noted, the CHW program of which the participants are a part has achieved a longevity that is unusual for many similar CHW programs. The existence of multiple sources of support and minimal challenges likely strengthened the sustainability of the program and its success in retaining its members.

Furthermore, unlike several past studies (Akintola et al., 2013; Cobbing et al., 2017), participants did not identify emotional stressors as a significant challenge to their work as CHWs. While some participants mentioned that being a CHW could be demanding due to the time commitment involved, none of the participants described psychological or emotional sources of stress in their work. Importantly, much of past CHW-related research was conducted within the context of the HIV/AIDS epidemic in rural African communities. Within that context, CHWs often encountered high prevalence of mortality and suffering, which likely increased the
emotional toll that CHWs experienced (Akintola et al., 2013; Peltzer, Matseke, & Louw, 2014). Furthermore, many of these studies described how CHWs were challenged by the stigma associated with HIV/AIDS, which further added to the psychological burden of the role (Akintola et al., 2013; Cobbing et al., 2017). In contrast, participants in this study provided care mainly to individuals suffering from chronic, but stable, disease states such as hypertension and diabetes. Although participants certainly faced emergent situations from time to time—such as patients suffering from asthma attacks or seizures—they were rarely confronted with life threatening situations.

Interestingly, none of the participants identified a lack of remuneration for their CHW responsibilities as a barrier to their work. Apart from a monthly stipend meant to cover transportation expenses incurred from their community work, the participants receive no financial remuneration for being a CHW. Yet the topic of reimbursement was never mentioned by any of the participants. This contrasts to past research that linked CHW demotivation and attrition to a lack of financial compensation (Mays et al., 2017). There could be several explanations for why participants did not discuss the topic of remuneration. First, HHI provided other sources of external support (e.g., training, equipment, and recognition) that could have provided comparable benefits for participants. Second, participants might have felt that receiving compensation would have diminished the noble character of their work. Swartz and Colvin (2015) described how, among CHWs, there is a tension between economic incentives and more socially acceptable motivators, such as altruism and selflessness. Community respect for CHWs appears to be greater for those who do not receive monetary benefits for their work. Furthermore, Glenton et al. (2010) argued that financial incentives can erode internal factors in CHWs, including a sense of altruism and a commitment to doing good. In this study, participants might
have felt that receiving compensation would be discordant with their internal motivations to serve their communities. Finally, a third explanation could be that participants felt uncomfortable discussing financial matters with me, whom they had only known for a short amount of time. Additionally, participants might have been concerned that they would appear ungrateful to HHI if they expressed the desire for monetary compensation.

Still, participants readily discussed a different challenge related to being unpaid volunteers. Specifically, three participants reported that some community residents misunderstood the role of the CHWs, thinking that they were paid providers who owed the community their services. Furthermore, other community residents believed that participants became CHWs only to make money or for other self-serving reasons. These findings reinforce the tension that can exist between financial remuneration and community respect of CHWs (Swartz & Colvin, 2015). Considering that the respect and trust of their communities were important supportive factors for participants in this study, the idea that remunerations could lessen that respect is an important issue to consider. The debate surrounding financial incentives for CHWs is ongoing, and the effects of such incentives, both positive and negative, must be carefully weighed when planning CHW programs.

**Interpretation of Findings within the Guiding Theoretical Frameworks**

In this section, I relate the findings to the three theoretical frameworks that guided the studies conceptual design. I begin by discussing the findings within the context of SCT. I next describe how the findings relate to role theory. Finally, I situate the findings within the context of Freire’s theory of critical pedagogy.
Social Cognitive Theory

Social cognitive theory holds that human behavior is in a constant, reciprocal relationship with a person’s internal characteristics and the surrounding environment (Bandura, 1986). The environment (both social and physical) exerts influence on a person’s behaviors, but the environment can also be transformed by an individual’s actions. Additionally, a person’s intrinsic characteristics—such as knowledge, beliefs, and values— Influence their behaviors and their surrounding environment (Bandura, 1986). For example, in this study, participants felt a responsibility to their communities (an intrinsic characteristic), which influenced them to serve as health promoters (a behavior) in order to effect positive change in their communities’ health (the environment).

The findings from this study reinforce the theoretical propositions of SCT and reciprocal determinism. Within the context of this research, participants’ behaviors as CHWs were influenced by the environment of their communities. Specifically, the health needs of the community determined the actions that participants took as CHWs. In turn, the health promoting interventions implemented by participants influenced the health outcomes of their communities, resulting in a positive transformation of the social environment. Additionally, personal characteristics that influenced participants’ behaviors as CHWs included a commitment to altruistic endeavors and a sense of duty to one’s community. The knowledge and skills that participants gained as part of their CHW training also increased their ability to engage in health promoting behaviors, which further contributed to positive health outcomes for their community. By engaging in caring actions, participants experienced personal satisfaction and growth. Thus, the behaviors that participants enacted as CHWs directly influenced their personal attributes.
These examples illustrate the reciprocal interplay that exists between CHWs’ environment, personal characteristics, and behaviors.

Furthermore, the physical and social environment exerted both positive and negative influence on participants. In some instances, the physical surroundings were an obstacle that participants had to overcome in order to fulfill their CHW duties. In other cases, the natural setting provided a place of solace, where participants could relax and renew their physical and spiritual energies. Additionally, the availability of material resources such as medications and medical devices influenced participants’ capacity to provide care for their communities.

Considering the social environment, participants identified several reciprocal relationships that benefited them as CHWs. Positive interactions with patients, families, HHI, and fellow promoters motivated participants and were important sources of support. Moreover, the health trainings provided by HHI seemed to enhance the health knowledge and skill set of participants, which increased personal feelings of satisfaction and self-efficacy and improved their capacity to provide community-level health interventions. As part of SCT, self-efficacy refers to a person’s belief in their ability to be successful at a given behavior (Bandura, 1986). Self-efficacy is influenced by individual and environmental factors (Bandura, 1986). For participants, gaining new knowledge through health trainings had a positive effect on self-efficacy, which enhanced their self-image and confidence as CHWs.

The social environment could also negatively affect participants, who described how adversarial relationships with community residents presented significant challenges to their efforts as CHWs. Several participants described how hostile encounters with community residents were discouraging. However, in response to hostile encounters with community residents, participants adopted behavioral strategies to ease tensions and improve their rapport
with patients. This example illustrates how the behaviors of participants were influenced by social interactions, but also how those behaviors could also ultimately transform the social environment.

**Role Theory**

Role theory posits that human behaviors are governed by the roles that people assume in society (Biddle, 1979). Furthermore, Banton (1996) defined a role as “the expected behavior associated with a social position” (p. 749). Thus, according to role theory, human behaviors can, in part, be explained by the social roles and positions that people assume. Role theory also postulates that social roles exist to fulfill specific societal functions (Biddle, 1979).

Findings from this study were congruent with the major propositions of role theory. For example, participants recognized that the role of CHWs existed to fulfill a specific social function, which was to meet the health needs of their communities. Furthermore, participants acknowledged that there were specific expectations attached to the role of the CHW. These expectations shaped how participants viewed their role and determined the behaviors that participants engaged in as CHWs. Moreover, congruence between participants’ role expectations and their experiences as CHWs contributed to feelings of personal fulfillment. For example, as participants viewed their role as a community change agent, they consequently felt joy and satisfaction when they were able to achieve lasting change in their patients. Conversely, participants became discouraged when their efforts to improve health were confounded by patient and community non-adherence. These findings highlight how role expectations and performance can influence CHW satisfaction.

Additionally, participant perceptions of their role also influenced how they evolved as CHWs. For example, participants described how they perceived themselves as community
leaders, and this perception influenced their experiences and behaviors in the role. For example, participants recognized that leadership conferred moral responsibilities to their communities’ well-being. A sense of social responsibility motivated participants to take actions to overcome physical and social challenges in order to fulfill their duties to the community. According to the symbolic interactionist approach to role theory, how a person conceptualizes a role and negotiates that role within society is key to understanding how they behave in that role (Biddle, 1986). Consistent with symbolic interactionism, participants’ behaviors as CHWs went beyond the tasks assigned to their role and incorporated their own personal beliefs of what a CHW should be. Hence, the role evolved according to contextual demands in the community as well as through participant perceptions of the role.

Furthermore, participants incorporated the role of the CHW into their overall identity, which was reflected in their commitment to be available to help others whenever the need arose. As Claudia stated, “I am a promoter of any community that I may be in”. Role identity formation is a process through which a person attaches a meaning of self in relation to a social role (Farmer, Tierney, & Kung-Mcintyre, 2003). Past research has demonstrated that becoming a CHW can have transformative, positive effects on a person’s identity (Squires & O’Brien, 2012). For most participants in this study, serving as a CHW led to individual transformation through personal growth and empowerment, and the self-actualization experienced in the CHW role crossed over into their personal lives.

**Freire’s Theory of Critical Pedagogy**

As part of the larger body of field of critical theory, Freire’s concept of critical pedagogy explicates how oppressed or disadvantaged groups can use deliberate processes of reflection and deliberation to better understand social and political factors influencing their life circumstances
In doing so, people can then use the knowledge they gained to inform actions to solve problems and catalyze social change.

Within the context of this study, through the photovoice process, participants engaged in reflective discussions on their roles as CHWs and the social factors that influenced their work. While reviewing the findings with participants, two participants described how the photovoice project gave them new insights into their roles as CHWs. One participant commented that the project allowed her to express ideas that she knew in her heart but did not know how to express through words. Several participants also shared that the process reaffirmed their commitment to serving as a CHW, and that they had come to better appreciate the valuable contributions they made to their communities. These statements suggested that the photovoice process may have been an empowering experience for participants, a discovery that aligns with the purpose of photovoice and the tenets of critical pedagogy.

During the member checking session, all the participants agreed that it would be important to share the findings with HHI and community leaders, including representatives of the D.R.’s ministry of health. Using images to inform policy leaders is an essential component of the photovoice process, and is consistent with Freire’s critical pedagogy, in which the knowledge gained through reflection and dialectical discussion should ultimately be used to inform actions for change (Freire, 1970/2018). Freire called the process of using critical reflection to inform action praxis, and it is a vital consideration for PAR studies. Accordingly, I will be working with participants to put together a presentation that showcases the photographs generated during the study in a manner that will allow participants to share their stories with those in power.

According to the staff at HHI, the D.R.’s Ministry of Health has recently taken interest in the CHW program. Having a way to share the experiences and perceptions of the participants might...
facilitate increased support for the program, which could directly benefit participants by providing more of the social and fiscal resources necessary to excel in their roles as community-level providers.

**Implications**

The purpose of this study was to achieve a deeper understanding of the experiences and perceptions of CHWs living and working in the Montellano region of the D.R. Specifically, I sought to understand how participants viewed the role of the CHW, as well as what factors supported and challenged them in their work. To my knowledge, no other studies have explored the experiences of CHWs in the D.R., and so results from this research address a significant gap in CHW-related literature.

The findings from this study have implications for the participants and the stakeholders wishing to support and collaborate with CHWs in the Montellano region. Such stakeholders include, but are not limited to, visiting humanitarian groups, nurses and other health care professionals, the program’s sponsoring NGO, and health policymakers in the D.R., who might wish to support or replicate the local CHW program. Insights from this study could be used to strengthen social support systems, inform future training sessions, improve communication between CHWs and their communities, reach local policymakers, and advocate for increased public support for the CHW program.

Of importance, participants in this study demonstrated that they were dedicated to helping their communities, and that they all possessed an innate tendency toward altruistic endeavors. Although commendable and necessary, positive intrinsic characteristics such as altruism can be unintentionally exploited when external demands overwhelm internal motivators. Furthermore, unreasonable task shifting of health services without adequate mechanisms of
external support can ultimately undermine the sustainability of CHW programs. Nurses and other health care professionals wishing to collaborate with CHWs should ensure that adequate external mechanisms exist to balance the responsibilities associated with being a CHW. For participants in this study, the sponsoring NGO appears to have designed an effective program that provides CHWs with the resources and support necessary to ensure success and to make the CHW role a rewarding one. Still, HHI could use the findings from this study to address aspects that could be improved. For example, the organization could explore strategies to mitigate the transportation issues encountered by participants and to develop training sessions that provide CHWs with education on conflict management. Finally, for other organizations seeking to collaborate with CHWs, the findings from this study could be used to inform the design of sustainable CHW initiatives.

In relation to nursing practice, nurses working in LMIC settings often serve as supervisors for CHWs or as liaisons between CHW programs and the public health care system (George et al., 2011; King et al., 2017; Rennert & Koop, 2009). Accordingly, nurses are well-positioned to collaborate and support CHW programs, which have the potential to bridge the gap between undeserved communities and the health care system (Quillian, 1993). Yet, for nurses to work successfully with CHWs, it is my contention that they must first understand the perspectives and experiences of the CHWs whom they seek to support. In a qualitative study that examined the relationships between eight CHWs and eight nurses working in South Africa, Doherty and Coetzee (2005) found that participating nurses misunderstood the CHW role, which led to conflicts between the two groups of providers. Furthermore, the researchers also found that the participating CHWs initially felt undermined by the nurses. Ultimately, as their relationships
evolved, the nurses came to value the CHWs, who looked to the nurses as role models and mentors.

The CHWs who took part in this study valued collaborations with health care professionals when such partnerships were consistent and based on mutual respect. Nurses wishing to work with CHWs should thus evaluate their willingness to participate in long-term collaborations and should ensure that they approach CHWs from a position of equality and humility. Participants in this study viewed themselves as community leaders, and nurses would do well to recognize the unique status that CHWs hold within their communities as local health experts.

Additionally, community health nurses and CHWs have much in common, and so findings from this study have implications for nurses working in community settings. Like CHWs, community health nurses (CHNs) work closely with community residents to improve population health and well-being. Community health nurses would do well to evaluate their commitment to the communities they serve, and to identify facilitators and barriers to their work. For example, like the participants in this study, the relationships that CHNs build with community residents are essential to their effectiveness at achieving positive health outcomes. Accordingly, gaining a community’s trust is a requisite first step for CHNs. Furthermore, building partnerships with other local stakeholders and learning to maintain mutually beneficial relationships with them can maximize the CHN’s ability to serve as a community-level advocate.

Furthermore, CHNs could play a role in the long-term evaluation of CHW-related health outcomes in communities. Before replicating a particular CHW program, it would be important to determine if the work of CHWs was actually contributing to improved health outcomes in the communities. With their expertise in population health, CHNs would be particularly qualified in
assisting CHW programs to develop an evaluation process that tracked the health outcomes related to CHW-related interventions. Nurse researchers could also play an important role in analyzing and disseminating outcomes data. Importantly, outcomes should be shared with CHWs, who would then have tangible evidence of the impact their actions had on their communities’ health.

Participants in this study also valued opportunities for personal growth, including the chance to learn more about health and well-being through regular monthly trainings. Nurses commonly serve as health educators and have been instrumental in designing and implementing training for lay health workers (Policicchio & Dontje, 2018; Okereke, Tukur, Oginni, & Obonyo, 2015). Hence, nurses are well-positioned to provide CHWs with education programming that could further enhance CHWs feelings of self-efficacy and personal satisfaction. Nurses could also provide periodic evaluation of skill performance by CHWs to ensure that they maintained competence in tasks such as blood pressure monitoring and blood glucose measurement.

Although financial remunerations for CHWs is still a debated topic, non-financial incentives such as educational opportunities appear to be appropriate strategies that can provide tangible incentives for CHWs. However, care should be taken to make training truly meaningful and relevant for CHWs, and to ensure that there is continuity among the educational opportunities offered. This could be particularly challenging for short-term volunteers, as they might lack the sustained commitment and cultural understanding necessary to provide truly beneficial health education (Knettel et al., 2017).

Finally, this study had direct implications for the participants themselves. Through the research process, participants gained better insights into their roles as CHWs, and had the opportunity to identify their collective strengths as well as opportunities to address barriers.
Participants can use the findings from this study to partner with HHI to build upon existing strengths and address priority needs. For example, several participants described situations in which care recipients were adversarial or resistant to medical advice. Accordingly, participants might explore strategies for conflict management during patient interactions. Participants might also benefit from examining reasons for patient non-adherence, which could then be addressed to improve patient participation in treatment plans.

**Recommendations for Future Research**

There are several avenues for future research that became apparent during this study. First, as noted in chapter 2, few studies have examined the perspectives and experiences of CHWs living and working in the LMICs of Latin America and the Caribbean. Apart from high-income countries, the bulk of CHW-related research has been conducted in African and Asian settings. Therefore, this study could be replicated in countries of Central and South America, as well as other nations of the Caribbean to provide further insights into the unique needs of those populations.

Additionally, a deeper exploration of how being a CHW contributes to the development of personal identity would be helpful to illuminate the transformative process that participants experienced through their work. Similarly, considering that participants viewed the CHW as a leadership role, it would be helpful to explore CHWs perceptions of leadership and the characteristics that make a successful leader. This avenue of research could explore not only the qualities that contribute to an effective CHW leader but could also examine the qualities of successful organizational leadership of CHW programs.

Although this research focused solely on the perspectives of CHWs, it would also be beneficial to examine the perceptions and characteristics of the sponsoring NGO, which created
and currently supports the CHW program in Montellano. How does the NGO staff view CHWs, and what explicit strategies do they use to recruit and retain volunteers for their program? Avery and Fernandez (2012) called for a research agenda to identify the core elements of successful CHW programs. Knowledge from such research could be used to improve the organizational structures of CHW programs and further enhance their sustainability. Similarly, future research could also explore community perceptions of the role of CHWs. By triangulating the perceptions of CHWs, sponsoring organizations, and community residents, a more holistic understanding of CHW initiatives would emerge and could provide an even deeper understanding of the critical elements needed for success and sustainability of such programs.

Turning to more pragmatic research, participants clearly valued the trainings they received from HHI and other visiting health experts. Accordingly, it could be beneficial to conduct a health education needs assessment to determine which topics to include in CHW training. Such a needs assessment could identify knowledge deficits among CHWs and reveal which health topics they prioritized as most important for their communities. This could be the first step in designing a rich and consistent training program that builds upon knowledge gained during previous sessions.

Additionally, to support the work of CHWs, future research could explore interventions based on the findings of this study. For example, since being part of a team was considered a supportive factor by participants, an intervention to enhance team building among CHWs could be implemented, and the impact of such an intervention could be analyzed. As another example, considering that some community residents misunderstood the position of participants, an intervention to enhance community understanding of the CHW role could be implemented and its effects evaluated via a longitudinal study.
Finally, the meaning of patient non-adherence could be further explored among CHWs who participated in this study. As noted previously, the frustration expressed by participants due to patient non-adherence suggests that CHWs might hold paternalistic views toward their communities. However, this observation is based on my own experiences working in the U.S.A.’s health care system and might not reflect the reality of participants. The cultural context of participants must be considered. Additionally, conflicts related to sociocultural values of health, and how participants and communities define health would be an important consideration to explore within the context of promoting health behavior changes. Accordingly, a study that examined the meaning and implications of patient non-adherence might help CHWs navigate such situations and could assist them at better understanding the reasons and implications of non-adherence.

**Limitation of Findings**

Before concluding, there are several limitations to this study’s findings that must be considered. These limitations are related to participant recruitment and characteristics, the influence of the researcher, and the process of data collection and analysis.

**Participant Recruitment and Characteristics**

Participant recruitment for this study was facilitated by HHI, who sponsors the CHW program. The organization could have recruited participants who share a common characteristic of which I am unaware, and which could have influenced the study’s findings. For example, HHI could have chosen participants because they were outgoing or because they had amicable relationships with HHI staff. Although I asked the organization to open recruitment for all eligible CHWs, I cannot be certain that every potential participant was notified. Nevertheless, this concern was addressed by the staff at HHI, who assured that enrollment was offered to all
CHWs in the program. Additionally, the study included approximately one half of all the eligible CHWs in the Montellano region, which enhanced the likelihood of having a diverse set of participants.

Additionally, two participants also worked as staff in the HHI office. Their presence could have influenced the actions of other participants, who might have adjusted their responses in a way that would be viewed more favorably by the organization. I addressed this limitation by conducting private, individual interviews, at which time I assured participants that the information they shared would be confidential. I also conducted the interviews in a location chosen by the participants in order to promote comfort and a sense of trust.

Finally, recruitment relied on participant self-selection, and participants might have chosen to take part in the study because of some common, unidentified variable. For example, some participants might have participated because of the incentives offered. Similarly, CHWs who did not participate in the study might have done so because of a mutual, unidentified factor. I addressed this concern by recruiting as many participants as I could for the project. Although Wang and Burris (1997) suggested that a group of seven participants was ideal for a photovoice project, I opted to allow a larger number to take part in the study, which increased the likelihood of a diverse sample that represented a range of experiences and viewpoints.

**Influence of the Researcher**

In addition to participant factors, there were limitations related to my role as the researcher. First, I am from a culture that is significantly different than the participants. Accordingly, my interactions with participants and my interpretation of findings might have been influenced by my own cultural biases. I addressed this limitation via bracketing, regular self-reflection and reflexive journaling throughout the research process.
Relatively, I do not speak fluent Spanish, and so I had to rely on an interpretation and translation services during data collection and analysis. The processes of interpretation and translation had the potential to obscure or alter findings. With respect to interpretation, I addressed this limitation through daily debriefing sessions with the interpreter and by clarifying the need to respect the voices of the participants. Regarding translation, I used two companies to provide independent translations of the Spanish transcripts. I then compared the translations and resolved significant differences through conversations with the translators and the interpreter. Finally, I verified the accuracy of the findings by sharing them with participants at a final group session.

**Data Collection and Analysis**

Study limitations also arose from the process of data collection and analysis. First, some participants might have felt uncomfortable sharing their experiences in a focus group setting, which is the traditional approach used in photovoice. I addressed this limitation by incorporating individual interviews into the data collection process and by triangulating data from these interviews, the focus group, and participant photographs, which provided a non-linguistic form of data collection.

Additionally, I have limited experience in qualitative analysis, which could have influenced how I interpreted the study’s findings. I addressed this concern by providing a detailed description of the data analysis process, which was reviewed by expert researchers on my dissertation committee. In addition, one committee member reviewed the transcripts independently to verify the accuracy of my analysis.
Summary

In summary, the purpose of this study was to explore the experiences and perceptions of CHWs living and working in a northern area of the D.R. known as Montellano. The study’s findings provided insight into how CHWs viewed their role, the factors that supported their work, and the challenges they faced while providing care for their communities. The aims of the study were attained by using a PAR strategy known as photovoice, in which participants took photographs that represented aspects of their lives as CHWs. Through interviews, a focus group, and a review of the photographs, I discovered that participants viewed their role as CHWs primarily as local leaders, whose purpose was not only to deliver much needed health services to their neighbors, but to guide their communities to a higher level of health and well-being. In the role of the CHW, participants performed specific, health-promoting tasks, but were also flexible and responsive to the needs of their communities, adapting their role as necessary to the needs of a given situation. Participants were supported by a considerable number of internal and external factors, which worked in conjunction to motivate and sustain them in their volunteer positions. Although some significant challenges were identified, participants readily identified strategies they used to overcome those challenges.

As the world’s population continues to grow and the international health care workforce becomes increasingly strained, CHWs have emerged as important members of the global health network. Accordingly, it is important for nurses and other health care professionals to acknowledge CHWs as colleagues in health care, and to find ways of supporting and sustaining their efforts to meet the needs of underserved communities around the world.


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Appendices

Appendix A: IRB Approval Letter From Kennesaw State University

Johnathan Steppe, Student
Clinical Assistant Professor of Nursing
KSU Wellstar School of Nursing, HS3116

Re: Your followup submission of 2/25/2019, Study #19-448: Exploring the Experiences of Dominican Community Health Workers through Photovoice

Hello Mr. Steppe,

Your application has been reviewed by IRB members. Your study is eligible for expedited review under the FDA and DHHS (OHRP) designation of category 7 - Individual or group characteristics or behavior.

This is to confirm that your application has been approved. The protocol approved is: Participants will be taking pictures that are related to their work as a community health worker (photovoice), will be interviewed/recorded, attend a focus group and complete a demographic survey to explore the experiences of voluntary community health workers (CHWs) living and working in underserved communities of the northern region of the Dominican Republic known as Puerto Plata. The consent procedure described is in effect.

NOTE: All surveys, recruitment flyers/emails, and consent forms must include the IRB study number noted above, prominently displayed on the first page of all materials.

You are granted permission to conduct your study as described in your application effective immediately. The IRB calls your attention to the following obligations as Principal Investigator of this study.

1. The study is subject to continuing review on or before 8/2/2020. At least two weeks prior to that time, go to http://research.kennesaw.edu/irb/progress-report-form.php to submit a progress report. Progress reports not received in a timely manner will result in expiration and closure of the study.

2. Any proposed changes to the approved study must be reported and approved prior to implementation. This is accomplished through submission of a progress report along with revised consent forms and survey instruments.

3. All records relating to conducted research, including signed consent documents, must be retained for at least three years following completion of the research. You are responsible for ensuring that all records are accessible for inspection by authorized representatives as needed.
Should you leave or end your professional relationship with KSU for any reason, you are responsible for providing the IRB with information regarding the housing of research records and who will maintain control over the records during this period.

4. Unanticipated problems or adverse events relating to the research must be reported promptly to the IRB. See http://research.kennesaw.edu/irb/reporting-unanticipated-problems.php for definitions and reporting guidance.

5. A final progress report should be provided to the IRB at the closure of the study.

Contact the IRB at irb@kennesaw.edu or at (470) 578-6407 if you have any questions or require further information.

Sincerely,

Christine Ziegler, Ph.D.
KSU Institutional Review Board Director and Chair

cc: bblake@kennesaw.edu
Appendix B: Approval Letter from CONABIOS

31 de julio del 2019.

Señores
Kennesau State University
WellStar College of Health
And Human Services.

Att.: Jonnathan D. Steppe, MSN, RN, CNE, Doctoral Candidate.

Distinguidos Señores:

A través de esta comunicación hacemos constar que ha sido evaluada la propuesta sometida por ustedes a través de Horizontes de salud una investigación denominada “Explorando las Experiencias de los Trabajadores de Salud Comunitaria Dominicana con Photovoice”, la cual ha sido aprobada. En los próximos días estaremos mandando la aprobación como un documento original.

Gracias por sus aportaciones al país a través de las investigaciones.

[Signature]
Dra. Aura Celestina Fernández
Appendix C: Informed Consent Forms

**SIGNED CONSENT FORM**

**Title of Research Study:** Exploring the Experiences of Dominican Community Health Workers Using Photovoice

**Researcher's Contact Information:**
Mr. Johnathan Steppe, MSN, RN, CNE, Doctoral Candidate
Kennesaw State University
[jds8853@kennesaw.edu](mailto:jds8853@kennesaw.edu)
+1 470-578-6992

**Introduction**
You are being invited to take part in a research study conducted by Johnathan Steppe, a nursing doctoral student from Kennesaw State University. Before deciding to participate, you should read this form and ask questions about anything that you do not understand. Participation is voluntary and you can choose not to participate at any time.

**Description of Project**
The purpose of this study is to explore the experiences of community health workers living and working in the Puerto Plata region of the Dominican Republic. Findings from this study will help me to better understand how you work with the community and what you need to do your work.

**Explanation of Procedures**
You are being asked to participate in this study because you have been identified as a community health worker with Health Horizons International. If you agree to participate, you will be given a digital camera and will take pictures that represent your experiences as a community health worker. You will receive training on how to use the camera, as well as how to safely take pictures. You will have 3 weeks to take photographs. After you have taken the pictures, I will interview you about your experiences as a community health worker and we will discuss the photos that you took. You will also attend a group meeting with other community health workers who are also participating in the study. At the meeting you will have the opportunity to share up to four of the photographs you took, and we will discuss what the photographs show about your experience as a community health worker. Because I do not speak fluent Spanish, there will be a professional interpreter present for each of the interviews and group meetings. Additionally, I will be recording the interviews and the group meetings.

Once I have completed analyzing the data, I will ask you attend a meeting to verify that the results are accurate and reflect your experience as a community health worker.

**Time Required**
There is a training session that will take approximately 3-4 hours. Afterward, you will have 3 weeks to take photographs. Once you have taken the photographs, you will participate in a 3-4 hour group meeting to view and discuss the pictures you took. I will also be interviewing you, and the interview will take approximately 1 hour. At the end of the study, we will meet as a group for approximately 2 hours to review the findings from the study.
Risks or Discomforts

Taking pictures requires that you focus on your surroundings, so you might be at risk for injury while using the camera. For example, you could stumble if you walk while taking a picture. During the photography training session, you will be taught how to safely take photographs. Also, if you take a picture of someone without first getting their permission, they could become upset, which could lead to an argument or fight. You will be asked to obtain permission from anyone you want to photograph, and you will be given a permission form for them to sign. You will not be taking of people without permission. You also will not be taking photographs of people under the age of 18.

In addition, taking photographs or answering interview questions could cause you to feel uncomfortable. You will be given a journal that you can use to write down any feelings or thoughts you may be having. You are not required to answer any questions or take any photographs that make you uncomfortable.

Benefits

The study will provide you with the opportunity to share your experiences as a community health worker. The information from the study can be used by Health Horizons International or other visiting groups to strengthen programs to support the practice of your community health work.

Compensation

To reimburse you for your time and expenses, you will receive $750 Dominican pesos for each step of the research process that you attend. These steps include: 1) photography training session, 2) interview session, 3) group meeting to discuss photographs, and 4) group meeting to review findings. At the group meeting to discuss the photograph, you will receive an additional $250 Dominican pesos. Food and beverage will also be provided at group meetings. The total compensation for participation in all steps of the research project will be $3250 Dominican pesos. At the end of the study, you can keep the camera and will also receive a copy of one of the photographs that you took. You will choose which photograph you would like to receive.

Confidentiality

The results of your participation will be confidential. You will be assigned a number at the beginning of the study that the researcher will use to identify you. You be signing this consent form that has your assigned number, and this form will be kept separate from all of the other research documents to protect your identity. Afterward, the researcher will only use your number on all other information that is collected. Your participation will be known to the researcher, the interpreter, to other participants, and to members of Health Horizons International who help coordinate the meeting places and times.

All the completed interview forms and audio recordings will be stored in a locked drawer that is located in a locked case in a locked room in the researcher’s hotel while in the Dominican Republic. The researcher will transport the data from the Dominican Republic to Kennesaw State University where it will again be stored in a locked cabinet and locked office. During data analysis, a password-protected computer at the university will be used. All computers are in locked office space.

Five years after the study is completed, the audio recordings will be erased, and the completed interview forms destroyed using a university approved disposal company.
Inclusion Criteria for Participation
To participate in this study, you must be 18 years of age or older. Additionally, you must currently be working as a community health worker in the Montellano region.

Statement of Understanding
The purpose of this research has been explained and my participation is voluntary. I have the right to stop participation at any time without penalty. I understand that the research has no known risks, and I will not be identified. By signing this document, I am agreeing to participate in this research project.

Signed Consent
I agree and give my consent to participate in this research project. I understand that participation is voluntary and that I may withdraw my consent at any time without penalty.

__________________________________________________
Signature of Participant or Authorized Representative, Date

___________________________________________________
Signature of Investigator, Date

PLEASE SIGN BOTH COPIES OF THIS FORM, KEEP ONE AND RETURN THE OTHER TO THE INVESTIGATOR

Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 585 Cobb Avenue, KH3403, Kennesaw, GA 30144-5591, (470) 578-2268.
Formulario de Consentimiento Firmado

Título del estudio de investigación: Explorando las experiencias de los promotores de salud comunitaria dominicanos con Photovoice (Exploring the Experiences of Dominican Community Health Workers Using Photovoice)

Este Estudio # 19-448 ha sido aprobado y está bajo la supervisión del IRB de KSU.

Información de contacto del investigador:
Sr. Johnathan Steppe, MSN, RN, CNE, estudiante de doctorado
Universidad Estatal de Kennesaw
jds8853@kennesaw.edu
+1 470-578-6992

Introducción
Se le invita a participar en un estudio de investigación llevado a cabo por Johnathan Steppe, estudiante de Doctorado en Enfermería de la Universidad Estatal de Kennesaw. Antes de decidir si participará, debe leer esta carta y hacer las preguntas que desee sobre cualquier tema que no comprenda. La participación es voluntaria y puede optar por no participar en cualquier momento.

Descripción del proyecto
El objetivo de este estudio es explorar las experiencias de los promotores de salud comunitaria que viven y trabajan en la región de Puerto Plata de la República Dominicana. Los hallazgos de este estudio me ayudarán a comprender cómo trabaja con la comunidad y lo que necesita para llevar a cabo su labor.

Explicación de los procedimientos
Se le solicita que participe en este estudio porque ha sido identificado como trabajador de salud comunitaria en Health Horizons International. Si acepta participar, recibirá una cámara digital y tomará fotografías que representen sus experiencias como trabajador de salud comunitaria. Recibirá capacitación para saber cómo utilizar la cámara y cómo tomar fotografías de manera segura. Tendrá aproximadamente 3 semanas para tomar fotografías. Después de haber tomado las fotografías, lo entrevistaré para hacerle preguntas sobre su experiencia como trabajador de salud comunitaria y hablaremos sobre las fotografías que tomó. También asistirá a una reunión grupal con otros promotores de salud comunitaria que participan en este estudio. En la reunión, tendrá la oportunidad de compartir hasta cuatro de las fotografías que tomó, y hablaremos sobre qué muestran esas fotografías de su experiencia como trabajador de salud comunitaria. Como no hablo español de manera fluida, habrá un intérprete profesional presente en cada una de las entrevistas y en las reuniones grupales. Además, grabaré las entrevistas y las reuniones grupales.

Una vez que haya terminado de analizar los datos, le solicitaré que asista a una reunión para verificar que los resultados sean precisos y que reflejen su experiencia como trabajador de salud pública.

Tiempo requerido
La sesión de capacitación durará alrededor de 3-4 horas. Después, tendrá 3 semanas para tomar las fotografías. Una vez que las haya tomado, participará en una reunión grupal de 3-4 horas para ver las fotografías tomadas y debatir sobre ellas. También lo entrevistaré, y la entrevista durará alrededor de 1 hora. Hacia el final del estudio, nos reuniremos en grupo durante aproximadamente 2 horas para revisar los hallazgos del estudio.
Riesgos o molestias
Para tomar fotografías, debe enfocarse en su entorno, por lo cual puede correr riesgo de lesionarse al utilizar la cámara. Por ejemplo, podría tropezar si camina mientras toma una fotografía. Durante la sesión de capacitación de fotografía, aprenderá a tomar fotografías de manera segura. Además, si toma una fotografía de alguien sin antes pedirle su autorización, esa persona podría molestarse, y esto podría provocar una discusión o pelea. Le solicitaremos que pida autorización a todas las personas a quien quiera fotografiar, y recibirá un formulario de autorización para que firmen las personas fotografiadas. No podrá tomar fotografías a personas que no brinden su consentimiento. Tampoco podrá tomar fotografías a personas menores de 18 años.

Tomar fotografías o responder las preguntas de la entrevista podría provocarle cierta incomodidad. Recibirá un diario donde podrá anotar cualquier sentimiento o pensamiento que tenga. No es obligatorio que responda las preguntas o tome fotografías que lo hagan sentir incómodo.

Beneficios
El estudio le dará la oportunidad de compartir sus experiencias como trabajador de salud comunitaria. Health Horizons International u otros grupos visitantes utilizarán la información que se recopile a partir del estudio para fortalecer programas para respaldar la práctica de su trabajo en el área de la salud comunitaria.

Compensación
Para reembolsarle el tiempo y los gastos invertidos, recibirá $750 pesos dominicanos por cada paso del proceso de investigación al que asista. Estos pasos incluyen: 1) la sesión de capacitación de fotografía, 2) la sesión de entrevista, 3) la reunión grupal para hablar sobre las fotografías, y 4) la reunión grupal para repasar los hallazgos. En las reuniones grupales, también ofreceremos comida y bebida. A la reunión grupal para hablar sobre las fotografías, también recibirá $250 pesos adicionales. La compensación total por la participación en todos los pasos del proyecto de investigación será de $3,250 pesos dominicanos. Al finalizar el estudio, puede quedarse la cámara, y recibirá una copia de una de las fotografías que tomó. Usted elegirá cuál de ellas desea recibir.

Confidencialidad
Los resultados de su participación se tratarán de manera confidencial. Al comienzo del estudio, usted recibirá un número que el investigador utilizará para identificarlo. Firmará este formulario de consentimiento que contiene el número asignado, y este formulario se guardará aparte de todos los demás documentos de la investigación para proteger su identidad. Luego, para todo el resto de los datos que se recopilen, el investigador únicamente utilizará su número. Solo el investigador, el intérprete, los demás participantes y los miembros de Health Horizons International, quienes lo ayudarán a coordinar la hora y el lugar de las reuniones, sabrán de su participación.

Todos los formularios de la entrevista que complete y las grabaciones de audio se almacenarán en una gaveta con llave ubicada en una caja con llave en una habitación con llave en el hotel del investigador mientras se aloje en República Dominicana. El investigador transportará los datos desde República Dominicana hasta la Universidad Estatal de Kennesaw, donde nuevamente se almacenarán en un gabinete con llave y en una oficina con llave. Durante el análisis de datos, se utilizará una computadora protegida con contraseña en la universidad. Todas las computadoras se encuentran en una oficina con llave.

Cinco años después de haber finalizado el estudio, las grabaciones de audio se borrarán y los formularios completados de la entrevista se destruirán mediante una compañía dedicada a la eliminación de datos, aprobada por la universidad.
**Criterios de inclusión para la participación**
Para participar en este estudio, usted debe tener 18 años o más, y actualmente debe trabajar como trabajador de salud comunitaria en la región de Montellano.

**Consentimiento firmado**
Estoy de acuerdo y doy mi consentimiento para participar en este proyecto de investigación. Entiendo que la participación es voluntaria y que puedo retirar mi consentimiento en cualquier momento sin penalización.

____________________________________________________________________________________
Firma del Participante, Fecha

____________________________________________________________________________________
Firma del Investigador, Fecha

**POR FAVOR FIRME AMBAS COPIAS DE ESTE FORMULARIO, GUARDE UNO Y REGRESE EL OTRO AL INVESTIGADOR**

La investigación en Universidad Estatal de Kennesaw que involucra a participantes humanos se lleva a cabo bajo la supervisión de un Comité Institucional de Revisión (Institutional Review Board). Dirija cualquier pregunta o problema en relación con estas actividades al Comité Institucional de Revisión: Institutional Review Board, Kennesaw State University, 585 Cobb Avenue, KH3403, Kennesaw, GA 30144-5591, (470) 578-2268.

Este Estudio # 19-448 ha sido aprobado y está bajo la supervisión del IRB de KSU.
Appendix D: Consent to Be Photographed Form

Kennesaw State University
WellStar School of Nursing
Principal Investigator: Johnathan Steppe, MSN, RN, CNE, Doctoral Student

Photovoice Photograph Consent Form

May I take your picture?

What am I being asked to do?

- You are being asked to give me your permission to take your picture

Why are you taking these pictures?

- The theme for this project is, “The Experiences of Dominican Health Promoters.” As a participant of this project I am taking pictures that reflect my experiences as a promoter.

Will people know that I had my picture taken for this project?

- Your name will never be revealed in any of the project discussions, presentations, or exhibits. Still, there is a chance that someone might recognize you.

Do I have to allow you to take my picture?

- No. You do not have to allow me to take your picture.

Who can I contact if I have any questions about the project?

- If you ever have any questions or concerns, please contact Johnathan Steppe at jds8853@kennesaw.edu or with Dr. Barbara Blake at bblake@kennesaw.edu

Agreement Statement:

By signing this consent form, I agree to have my picture taken. I also understand and agree that unless otherwise notified in writing, the primary researcher assumes that permission is granted to use my picture(s) for project related discussions, exhibits and presentations.

Your signature:_____________________________ Date:___________

Photographers signature:_____________________ Date:___________

Thank You!
¿Puedo tomarle fotografías?  Sí          No

¿Qué me pide que haga?
   ➢ Le pido que me autorice para fotografiarlo

¿Para qué toma estas fotografías?
   ➢ El título de este proyecto de investigación es: "Las experiencias de los promotores dominicanos". Como participante de este proyecto, tomo fotografías que reflejen mis experiencias como promotor.

¿La gente sabrá que me tomó una fotografía para este proyecto?
   ➢ No se revelará su nombre en ninguno de los debates, presentaciones ni exhibiciones de este proyecto. De todas maneras, existe la posibilidad de que alguien lo reconozca.

¿Debo permitirle que me tome una fotografía?
   ➢ No. No es obligatorio que me autorice.

¿Con quién puedo comunicarme si tengo alguna pregunta sobre el proyecto?
   ➢ Si en algún momento tiene preguntas o dudas, comuníquese con Johnathan Steppe enviando un correo a jds8853@kennesaw.edu o con Barbara Blake, bblake@kennesaw.edu

Declaración de conformidad:
Al firmar este consentimiento, acepto que me fotografíen. También comprendo y acepto que, excepto se indique lo contrario por escrito, el investigador principal asume que se brinda autorización para utilizar mi/s fotografía/s para debates, exhibiciones y presentaciones relacionados con el proyecto.
Su firma: ___________________________ Fecha: ___________

Firma del fotógrafo: _____________________ Fecha: ___________

¡Gracias!
Appendix E: Informational Flyer

You Are Invited to Participate in a Study about Health Promoters
Kennesaw State University
For more information, contact: Johnathan Steppe at jds8853@Kennesaw.edu

I am conducting a study to understand your experiences working as a health promoter in the Dominican Republic. During the study, you will have the opportunity to take photographs that show us what it is like to be a health promoter. We will share and talk about the photographs as a group. The photographs will help us to better understand your work as a health promoter and the challenges you face while caring for your communities.

In order to participate you must:
- Be 18 years or older
- Currently work as a health promoter
- Not receive a salary as a promoter beyond a monthly stipend for travel and expenses
- Attend a 3-4 hour enrollment and photography training session on August 15th, 2019

During the study, you will spend 3-4 hours learning how to safely take photographs. Cameras will be provided. You then will have 3 weeks to take pictures with the cameras. After taking photographs, you will have the opportunity to share them during a group meeting that will last 3-4 hours. I will also interview you about being a promoter. The interview will take approximately 1 hour. You will be compensated 750 Dominican Pesos for your time and travel expense each time we meet. You will also receive an additionally $250 pesos at the group photo review, for a total of $3250 Dominican Pesos. Food and drink will also be provided during each group meeting. At the end of the study, you will receive a framed copy of your favorite photograph.

Enrollment and training Session: August 15th at 10:00 AM
Food and Drink will be provided!

This Study #19-448 has been approved and is under the oversight of KSU’s IRB.
Lo invitamos a participar en un estudio sobre Promotores de salud
Universidad Estatal de Kennesaw
Para obtener más información comuníquese con:
Johnathan Steppe en jds8853@kennesaw.edu

Estoy realizando un estudio para comprender sus experiencias al trabajar como Promotor de salud en la República Dominicana. Durante este estudio, usted tendrá la oportunidad de tomar fotografías que nos muestren cómo es ser Promotor de salud. Compartiremos las fotografías y hablaremos de ellas en grupo. Las fotografías nos ayudarán a entender mejor su labor como Promotor de salud y los desafíos que enfrenta al atender a su comunidad.

Para poder participar, debe:
- Ser mayor de 18 años;
- Actualmente trabajar como promotor de salud
- No recibir algún salario como promotor aparte del apoyo económico mensual para viáticos y gastos;
- Asistir a una sesión de inscripción y capacitación fotográfica de 3 a 4 horas el 15 de agosto de 2019.

Durante el estudio pasará 3-4 horas aprendiendo a tomar fotografías de manera segura. Se entregaran cámaras. Luego tendrá 3 semanas para tomar fotos con las cámaras. Después de tomar las fotografías, tendrá la oportunidad de compartirlas durante una reunión grupal que durará de 3 a 4 horas. También, lo entrevistaremos acerca de ser promotor, la entrevista durará aproximadamente 1 hora. Recibirá 750 pesos dominicanos cada vez que nos reunamos. Para la revisión de fotos grupales, recibirá 250 pesos adicionales, con un total de 3,250 pesos dominicanos. Se ofrecerá comida y bebida en cada reunión grupal. Al finalizar el estudio recibirá una copia enmarcada de su fotografía favorita.

Sesión de inscripción y capacitación: 15 de agosto a las 10:00 a.m.
¡Ofreceremos comida y bebida!

Este Estudio # 19-448 ha sido aprobado y está bajo la supervisión del IRB de KSU.
Appendix F: Eligibility Screening Tool

Eligibility Screening Tool

1. What is your age? __________

2. Do you currently work as a community health worker in the Montellano region?    Yes   No

3. Do you receive a salary as a health promoter?   Yes  No

Herramienta de selección de elegibilidad

1. ¿Qué edad tiene? __________

2. ¿Trabaja actualmente como promotor de salud en la región de Montellano?

3. ¿Recibe un salario como promotor de salud?   Sí  No
Appendix G: Showed Mnemonic Questions

**English Version of SHOWeD Questions**

1. What do you See here?
2. What is really Happening here?
3. How does this relate to Our lives?
4. Why does this problem or situation exist?
5. How can we be Empowered by this?
6. What can we Do about it?

**Spanish Version of SHOWeD Questions from Baquero et al. (2014)**

1. Mencionar el asunto. ¿Qué es lo que VEMOS literalmente en la foto?
2. Explica ¿Qué SUCEDEN en la foto?
3. Lo que sucede en la foto ¿En qué se relaciona a NUESTRAS vidas?
4. ¿Cuál o cuáles son las CAUSAS por las que esto sucede?
5. Ahora que yacomprendemos lo que sucede ¿Cómo podemos EMPODERAR a la comunidad o anosotros/asmismos/as? ¿Cómo podemos EDUCAR o sensibilizar a otros sobre el problema?
6. ¿Qué podemos hacer y cómo podemos RESOLVER esto en nuestras vidas?
Appendix H: Interview Questionnaire

1. Tell me how you became a promoter de salud.

2. Tell me what being a promoter means to you.

3. Tell me what you enjoy about being a promoter.

4. Tell me what helps you be successful as a promoter.

5. Tell me what challenges you encounter in your work as a promoter.

6. Tell me how overcome the challenges you face in your work as a promoter.

7. Is there anything else that you would like to tell me about your experiences as a promoter?
**Cuestionario para la entrevista**

1. Cuénteme cómo se convirtió en promotor de salud:

2. Cuénteme qué significa para usted ser promotor de salud:

3. Cuénteme qué disfruta de ser promotor de salud:

4. Cuénteme qué lo ayuda a ser exitoso como promotor de salud:

5. Cuénteme qué desafíos encuentra en su trabajo como promotor de salud:

6. Cuénteme cómo supera los desafíos a los que se enfrenta en su labor como promotor de salud:

7. ¿Desea contarme algo más sobre sus experiencias como promotor de salud?
Appendix I: Demographic Survey

Demographic Information Form

1. What is your age? __________

2. How long have you been a health promoter with Health Horizons International? __________

3. What is the name of the community where you live? ________________________________

4. What is the name of the community where you work as a health promoter? _________________

   How many hours per week do you spend working as a health promoter in that community? __________________

5. How would you describe your gender?

   Female □   Male □   Other (describe): __________________________ □

6. What is your marital status?

   Single □   Partnered □   Married □   Separated □   Divorced □   Widowed □

7. Do you have children?   Yes □   No □

   If yes, how many? _________________________________

8. How would you describe your race and ethnicity? _________________________________

9. What is your nationality? _________________________________

10. What is the highest level of education you completed? _______________________________
1. ¿Qué edad tiene? __________

2. ¿Hace cuánto tiempo es Promotor de salud con Health Horizons International? ______________

3. ¿Cuál es el nombre de la comunidad donde vive? _______________________________________

4. ¿Cuál es el nombre de la comunidad donde trabaja como promotor de salud?
________________________________
¿Cuántas horas por semana pasa como promotor de salud en esa comunidad? ________________

5. ¿Cómo describiría su género?

<table>
<thead>
<tr>
<th>Femenino</th>
<th>Masculino</th>
<th>Otro (describir):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>______________________</td>
</tr>
</tbody>
</table>

6. ¿Cuál es su estado civil?

<table>
<thead>
<tr>
<th>Soltero</th>
<th>En pareja</th>
<th>Casado</th>
<th>Separado</th>
<th>Divorciado</th>
<th>Viudo</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. ¿Tiene hijos?  Sí ♡  No ♡

En caso afirmativo, ¿cuántos? __________________________________________

8. ¿Cómo describiría su origen étnico?

______________________________________________________________________________________

9. ¿Cuál es su nacionalidad? ________________________________

10. ¿Cuál es el mayor nivel de estudios completado?

______________________________________________________________________________________
Appendix J: Atlas.Ti Network Views

Figure 57. Atlas.ti network showing quotation and photograph density for sub-theme "The Needs of My Community"
Figure 58. Atlas.ti network showing quotation and photograph density for sub-theme "Rocks in the road"
Figure 59. Atlas.ti network showing quotation and photograph density for sub-theme "No Matter the Distance"
Figure 60. Atlas.ti network showing quotation and photograph density for sub-theme "Making a Difference for Others"
Figure 61. Atlas.ti network showing quotation and photograph density for sub-theme "Making a Difference for Myself"
Figure 62. Atlas.ti network showing quotation and photograph density for sub-theme "Change is Difficult"
Figure 63. Atlas.ti network showing quotation and photograph density for sub-theme "Mutual Support"
Figure 64. Atlas.ti network showing quotation and photograph density for sub-theme "Managing Relationships"