

**Exploring the Supports Available for Health and Social Service Providers from  
Canada Responding to the Disaster in Haiti**

Master's Thesis

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Date: September 21, 2012

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## **Abstract**

The world has experienced multiple disasters in recent years that have highlighted the importance of effective disaster preparedness and response initiatives. One prominent example is the January 12, 2010, 7.0 magnitude earthquake that shook Port-au-Prince, Haiti. The massive disaster made it difficult for local Haitian community officials to respond immediately, leaving the country reliant on foreign aid and international and non-governmental relief organizations. Within days, hundreds of organizations and volunteers mobilized to send physicians and medical specialists, nurses, physiotherapists, psychologists and social workers to the affected area. However, the political and financial instability of Haiti, in conjunction with limited resources and severe destruction from the earthquake, made it difficult to coordinate response efforts between hundreds of responding organizations. The literature indicates that when health professionals are disorganized and unprepared, they are at risk physically, emotionally and mentally which could hinder their effectiveness as first responders. While these risks have been made known, there is little literature that explores the effectiveness of the supports, as perceived by Canadian health and social service providers in Haiti. In order to address this gap, this qualitative study explores various supports that were available to health and social service providers in Haiti by focusing on their lived experiences pre-deployment, on-site and post-deployment. These findings provide evidence to inform policy development regarding future disaster relief and the supports available to health and social service workers assisting with international disaster response.

## **CHAPTER 1: Introduction**

### ***1.1 Background***

The world has experienced devastating disasters such as the terrorist attacks of “9/11” (September 11<sup>th</sup>, 2001), the Haitian earthquake (January 13, 2010) Hurricane Katrina (August 29, 2005), the floods in Pakistan (late July 2010), and the 9.0 earthquake, tsunami, and nuclear disaster from 2011 which is still unfolding in Japan. The states of emergency and chaos faced by these countries have brought attention to the need for comprehensive disaster preparedness, response, and recovery initiatives for natural disasters causing chemical, biological, radiological, nuclear, and explosive (CBRNE) impacts.

Disaster response and recovery are often coordinated by national and international organizations. An example of this type of response was seen in the recent 2010 earthquake in Port-au-Prince, Haiti that left 240,000 dead, 200,000 injured, 1.5 million homeless, and 600,000 displaced (de Ville de Goyet et al.; 2011, McKersie, 2010). When the 7.0 magnitude earthquake struck, the already politically and financially unstable country of Haiti faced yet another challenge, that of recovering from this disaster. Since the majority of Haiti’s social services were already engaged in disaster response, providing essential services, such as food, shelter and housing to their citizens, the earthquake left few resources available for psychosocial and health services (Bigelow, 2010). The 5.9 magnitude aftershocks destroyed the already weakened infrastructure in the country, and instilled great fear in both the responders and the Haitian people. Before the earthquake, there were less than 2000 physicians in all of Haiti, many of whom had not been paid in over a year, due to the financial constraints of the government (DeGennaro Jr, 2011). The earthquake destroyed hospitals, clinics, and other infrastructure, leaving many health and social service workers buried in the rubble (Fraleigh, 2010; Julien and Heilicser, 2011). An estimated

1,300 educational facilities and over 50 hospitals or health centers collapsed or were left unusable (de Ville de Goyet et al., 2010).

However, the earthquake was not the only challenge that Haiti faced. Nine months after the earthquake, there was a cholera epidemic in the country that claimed the lives of 4,600 people (PAHO, 2011). While large NGOs and other organizations rushed to assemble sanitary health-care facilities and provide access to clean drinking water in the country, delegates were left with the challenge of aiding cholera victims, a disease that is not common to Canada (World Health Organization, 2010). These conditions added stress to a situation that was already considered a ‘worst case scenario’. According to Archer, Moschovis, Le and Farmer (2011),

“January 12, 2010 was the worst-case scenario – a large scale disaster amplified by poverty, densely populated communities and the lack of basic infrastructure. Nine months later, the cholera epidemic further highlighted the importance of healthy communities with sanitation, pest control, clean water and access to essential vaccines, medicines and healthy foods” (p.891).

Large-scale natural disasters often make it difficult for local community officials and first responders to respond immediately (McCunn et al, 2010). In order to cope with the medical demands of its people, Haiti relied heavily on international relief (Bigelow, 2010). As hundreds of relief organizations flooded into the Republic of Haiti, the Pan-American Health Organization took charge and led the health cluster aspect of the response. According to PAHO, these teams included the following: Medical components of urban search and rescue (USAR) teams, bilateral government medical teams, UN or UN related agencies, the Red Cross system, International NGOs, Bilateral non-state institutions, teams from social or religious associations, and ad hoc

initiatives that were set up in response to the Haitian earthquake (de Ville de Goyet, Sarmiento, Grünewald, 2010). Because of Haiti's geographic location in relation to North America, and its accessibility by both land and water, many Canadian, US, and other international delegates were quick to respond (de Ville de Goyet, Sarmiento, Grünewald, 2010).

According to Hopmeier et al. (2010), there were three groups of responders in Haiti. The first of these included the national search and rescue teams that arrived from countries such as the United States, France, and Israel. The second group consisted of NGOs including Médecins Sans Frontières (Doctors Without Borders) and the Red Cross and Red Crescent societies. The final group was made up of volunteers that assembled for what Hopmeier et al call an "ad-hoc" response. Responding health professionals included physicians and medical specialists, nurses, rehabilitation therapists (such as physiotherapists), and social workers.

Because of the complexity of this disaster, new responders were faced with a steep learning curve upon arrival (Hillel, 2010). Furthermore, because new volunteers were arriving on site every two weeks, there was an increased demand placed on the experienced workers on-site, who were expected to train these new recruits, in addition to fulfilling their original roles (Hillel, 2010). This factor, combined with a high volunteer turnover, left little consistency in the medical response (Hillel, 2010). NGOs were faced with the challenge of ensuring that their efforts were consistent with the goals of Haitian health and social workers (DeGennaro Jr, 2011). While the literature indicates that most responding organizations agree that cooperation and coordination are key to an effective response, conflicting ideas regarding who should lead this cooperative effort still exist (Ansell et al, 2010). Some recommendations suggest that when it comes to crisis

management, self organization is often the better choice over official coordinated responses (Ansell et al., 2010). As seen in the many narratives regarding experiences in Haiti, however, this does not necessarily hold true (Lorich et al, 2010; Rosborough, 2010).

According to McCunn et al. (2010), it typically takes international organizations two to three days to organize their response teams before deploying individuals to the affected area. However, this estimated time applies only to military and other large response organizations that have pre-established preparedness plans and trained personnel. Many responders, particularly in the health and social services sector, are not affiliated with such organizations. As a result, these individuals arrive on-site without having received the same standard of preparedness or training as military and other personnel (McCunn et al., 2010). If not properly coordinated, the arrival of additional volunteers could potentially result in a haphazard response.

Since 9/11, developing an organized response between relief agencies during a disaster response effort has been a primary goal for many governments and NGOs (Jagim, 2008; Rodes et al., 2008). In Haiti, the Pan American Health Organizations (PAHO) of the World Health Organization (WHO) held the position of “Health Cluster lead” (PAHO, 2011). The purpose of this organization was to ensure that all of the parties involved in the response were working towards the same goals as Haiti’s Ministry of Health and Population. According to PAHO, this cluster organization was the only coordinating body between Haiti’s Ministry of Health and the international relief organizations. To date, there have been over 400 health organizations involved in the Haitian relief effort. To organize these efforts, the WHO created seven sub-clusters in the Haitian health response. These included the following: 1) mobile clinics; 2)

hospitals; 3) disability and rehabilitation centres; 4) health information; 5) disease surveillance; 6) reproductive health; and 7) mental health and psychological supports (PAHO). While this organizational strategy was available through PAHO as a resource for teams and individuals that were responding in Haiti, many responders still began their response unaware of this organizing body (Lorich et al., 2010; Rosborough, 2010). Therefore, despite noble intentions to provide aid, challenges with organization, delegation of responsibilities, and coordination between organizations from different countries often resulted in confusion and inconsistency in healthcare delivery and response in Haiti (Lacey, 2010).

While healthcare workers have repeatedly been identified as essential responders in disasters, the literature indicates they generally feel unprepared to respond to a large-scale emergency or natural disaster (O’Sullivan et al., 2008). As stated by Merchant et al. (2010),

“Spontaneous volunteerism can overwhelm a response system and, unless coordinated, can make things worse instead of better.” (p. 872)

It is thus crucial for response organizations to ensure their responders are capable of performing their roles effectively without bringing harm to themselves, or others (McCunn et al., 2010). This requires efforts to explore the supports currently in place for health and social service workers and identify any perceived gaps by the users. There is, therefore, a need for a bottom-up approach when it comes to designing the system for emergency preparedness, focusing on supports for healthcare professionals that are involved in the front-line disaster response.

### ***1.2 Research Questions and Objectives***

Based on the above rationale, this thesis addresses the need for knowledge about effective systems that provide physical, mental, emotional, and psychological protection for front-line

workers involved in international disaster relief response. Through a review of the literature and existing initiatives, common themes regarding essential support systems for disaster healthcare workers have been identified including: Pre-deployment Screening and Recruitment, Training, Emotional and Mental Health Supports, and Safety and Security.

The purpose of this research is to understand and evaluate the lived experiences of health and social service workers deployed to Haiti in response to the 2010 earthquake and to learn from these experiences the means to improve the delivery of support systems for disaster relief workers, to improve their experiences and effectiveness.

The specific research questions and associated research objectives include:

1. What are the systems of support currently offered to health and social service providers pre-deployment, on-site and post-deployment?

Objective: Provide a structured taxonomy of the available systems of support to Canadian health and social workers responding to an international disaster, such as the 2010 disaster in Haiti.

2. To what extent were health and social service professionals who responded to international disasters provided with the adequate systems of support to enable them to respond effectively to the disaster in Haiti?

Objective: Use detailed interviews to provide a structured description of the feedback from Canadian responders who experienced the effects of the current systems of support available to them in Haiti.

3. How do systems of support cater to the physical, mental, emotional and safety needs of healthcare professionals in the field, as experienced in Haiti?

Objective: Provide an analysis of the needs of healthcare professionals during their deployment in Haiti and identify gaps within the current systems of support.

4. What are the existing relationships between the current systems of support and how are the relationships influenced by the context of the disaster in Haiti?

Objective: Develop a model depicting the impacts of the response on Canadian health and social service providers in Haiti, in relation to the context of the disaster and the supports made available to these responders.

### *1.3 Overview*

In order to provide readers with appropriate background regarding the current systems of support available to health and social service workers responding to Haiti, and other international disasters, a literature review is presented in the next chapter. The literature review is divided into four sub-sections that identify the main supports upon which the research questions for this thesis have been developed.

The literature review is followed by the thesis methodology that was utilized to conduct this research project. The Results section is found in Chapter 4 of this thesis, followed by the Discussion (Chapter 5). This section is followed by suggestions of areas for future research and the conclusion (Chapter 6). Finally, the bibliography and appendices, which include samples of the data collection materials that were utilized, such as the Interview Guide and Consent Form, are included.

## **CHAPTER 2: Literature Review**

In this chapter, a review of the literature is presented using a taxonomy comprised of four support systems:

- 1) Recruitment and Screening,
- 2) Training,
- 3) Safety and Security, and
- 4) Emotional and Mental Health.

These categorizations were developed for the purpose of this study in order to categorize the main themes that were identified in the literature for health and social service responders. The first category addresses the types of supports and organization that make up pre-disaster recruitment and screening. The second category highlights the various training initiatives available to volunteers and professionals both pre-deployment and on-site. The third category examines the safety and security of health and social service workers stationed in Haiti. The final category encompassing emotional and mental health supports focuses on the formal types of support that were offered to the relief workers pre-deployment, on-site, and upon return.

Through the University of Ottawa Library, online databases such as the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Scopus and PubMed were utilized to conduct this review of the literature, with all relevant literature being imported and organized using “RefWorks” reference manager (University of Ottawa, 2010). A specific literature search on the conditions and cultural context in Haiti during the time of the earthquake was also conducted. While most of the literature highlighted narrative and phenomenological studies, pertinent articles that identified recommendations, barriers or lessons learned from Haiti were also

included. All of the selected articles focused on the disaster response from the perspective of a healthcare disaster worker or those providing support services to this demographic. Overarching themes such as collaboration and coordination in the disaster response were also examined.

### ***2.1 Recruitment and Screening***

While North America is one of the most proactive regions for international humanitarian response, recent disasters have indicated that there is still a dire need for more volunteers and relief workers. A 2004 Austrian report suggested “while the number of disasters is increasing, the number of volunteers are decreasing” (Thormaret al., 2010, p.529). While the spirit of volunteerism is present, barriers in recruitment and screening make it difficult for many to respond to an international response. According to Ansell et al. (2010), mobilizing responders during a disaster is difficult, particularly when there is little coordination in the response. In addition, many of the volunteers recruited through relief organizations find themselves unable to respond effectively on site, indicating that the screening processes currently in place may be ineffective (Jagim, 2008; Pardess, 2005; Thormar et al.). There is currently no common formalized standard for pre-deployment screening of healthcare workers; however, many organizations employ strict screening protocols. It is crucial to understand the demographic of the volunteer population, and to assess their training in order to ensure that their credentials meet the requirements for the disaster. Failure to do so can result in unprepared or unfit responders who can pose harm to both disaster victims and themselves (Frasca, 2010; McCunn et al., 2010; Pardess; Thormar et al).

There are many reasons people choose to respond in the international disaster relief effort. The most common motives include ‘intangible benefits’ and ‘giving back to the community’ (Frasca,

2010). However, before health and social service providers can deploy to a disaster-stricken country, there are typically rigorous screening processes they must undergo. Most professionals wishing to partake in the response effort do so by volunteering with various NGOs such as the World Health Organization (WHO), Doctors Without Borders, the Red Cross and Red Crescent societies, UNICEF, and United Way, each with its own recruitment and screening processes (Thormar et al., 2010). Other responders include employees of these organizations and individuals from the military.

While there is no standard process for screening, some common characteristics these organizations screen for include organizational skills, sensitivity, and compassion (Frasca, 2010; Yonge et al., 2010). In addition, screening processes are utilized to ensure the individual is a good team player, has a strong sense of initiative, and possesses the appropriate degree of physical health and emotional stability that would allow them to be effective in their position (Jagim, 2008; Pardess, 2005; Thormar et al., 2010).

In Haiti, high humidity, heat, and lack of basic amenities such as food, shelter, and lack of access to showers can be uncomfortable for responders (Fraleigh, 2010). Because of these difficult conditions, the literature recommends that individuals willing to respond possess a certain degree of flexibility and the ability to work in unorganized and unstable conditions (Merchant et al., 2010; Schmidt, 2010).

According to Schmidt (2010), it is crucial that organizations screen responders appropriately to ensure an effective response on-site. As seen in the literature, 'having good intentions' and

‘wanting to help’, are not grounds upon which an individual or organization can justify approval of an individual to respond to a disaster (Lorich et al., 2010). Instead, relief organizations screen their responders based on credentials and degree of experience. There was much discussion in the literature regarding the need for qualifications in a situation such as the Haitian disaster (Jagim, 2008); however, other than the typical licensing requirements for health professionals, specific credentials were not identified. For instance, one retired nurse recalls being asked if she was “still a real nurse” due to her length of absence in the field (Chally et al. 2010). Secondly, individuals’ previous experiences with disasters are also considered, particularly as the complexity of the situation in Haiti makes it difficult for even the most seasoned professionals to respond.

## ***2.2 Training Initiatives***

The challenges associated with the international relief response for the 2010 Haitian earthquake brought attention to the training supports available for volunteer health and social service workers. As found in a study conducted at the University of Pennsylvania, there is currently no standard for training initiatives for aid workers (McCunn et al., 2010). In addition, after contacting multiple disaster organizations, the research team were only able to pinpoint one document, the *WHO Situational Analysis Tool*, as a general guideline available for training. Moreover, this tool was not tailored to disaster situations and was later classified as a general guideline “for use in stable, functional, low-income-national facilities” (McCunn et al., p.3). In a similar effort, Daily et al. (2010) conducted a comprehensive review of electronic databases to assess whether there was an existing set of best practices for training initiatives for disaster health workers. The study indicated that there is a lack of standards when it comes to the availability and usage of standard training guidelines. Furthermore, inconsistent terminology

between the various training protocols available within organizations makes it difficult to compare the available supports in training.

For the purpose of this study, the literature was examined for any developments in standards for training for emergency health and social service responders. While a formal set of training guidelines were not found, an initiative entitled the *Sphere* project, developed in 1997 by various NGOs in collaboration with the Red Cross and Red Crescent societies, is noteworthy (Sphere, 2011). This project, which is identified as a “Humanitarian Charter Identifying Minimum Standards” outlines a set of standards recommended to emergency responders and health workers during times of disaster (Sphere, 2011, p.5). In a specific handbook on Health, the authors make general recommendations regarding potential overall goals responders can employ, such as: 1) Reducing morbidity and mortality; 2) Supporting national and health systems; 3) Coordinating between responding agencies; 4) Providing individuals with primary healthcare; 5) Providing individuals with clinical services; and 6) Implementing a standardized health information system (HIS) to report health data (Sphere). These recommendations are very general and provide a focus for the response efforts of health professionals, yet while these standards are clearly outlined, the *Sphere* handbook offers little information regarding training initiatives that could prepare individuals and relief organizations to achieve these standards. For example, in the section on Coordination, the handbook states that health organizations should coordinate with both national and local health services (Sphere), with few specific strategies to enable that coordination.

The literature has identified many components to promote planning and training initiatives for disaster response. The first recommendation calls for clear, structured and regular training of health and social service workers (Pardess, 2005). Training that spans the time of pre-deployment and deployment will result in a transfer of knowledge and instructions that will not overload the volunteers with an excessive amount of information at any one period of time (Pardess; Rodes et al., 2008; Thomas, 2004). Moreover, pre-deployment training that clearly outlines the types of equipment and resources available, as well as the environment and culture the volunteers will be working in better prepares healthcare workers to manage the emergency situations they will face once deployed (McCunn et al., 2010; Pardess; Ursano et al., 2006). If workers feel that they have not met either their personal expectations or the expectations of the organization, they are at risk of experiencing a sense of guilt and other negative emotions (Hearns and Deeny, 2007). This is an issue Hearns and Deeny (2007) recommended be addressed both pre-deployment and on-site by individuals in positions of power.

In a disaster situation, unexpected medical emergencies are common and responders often use of makeshift medical equipment to provide appropriate care. As stated in a self-narrative by Hillel (2010), an experienced physiotherapist who deployed to Haiti:

“I...had to learn a new set of skills and a new reality upon arriving in Haiti for which neither my practice in New York nor my personal knowledge of Haiti could have prepared me.” (p.9)

Another volunteer claimed that “[the team] quickly adapted to a brand of medicine that combined technology from 2010 and roughly 1920” (Raviv, 2010, p.1211). By training professionals and volunteers in a realistic, motivating manner, organizations can ensure their

workers remain optimistic during the span of their deployment (Ursano et al., 2006). Other recommendations highlight the need for role clarity in the emergency response. Effective training should include clarity and awareness of individual roles as well as team responsibilities (Hsu et al., 2006). It is also recommended that novice volunteers be paired with more experienced workers in order to ensure the clarity of these responsibilities and avoid burnout and discouragement (Frasca, 2010; Pardess, 2005; Thomas, 2004).

The literature highlights the need for official, accessible documents that outline training guidelines. McCunn et al. (2010) suggest these training manuals be specific to the roles of health and social service workers and not be generalized to encompass other volunteer aid workers, such as recovery and rescue workers. While these recommendations have been made, evaluation regarding the effectiveness of the training measures currently in place is a clear gap in the literature (Hearns and Deeny, 2007). This finding is concerning, given that lack of emphasis on evaluation can result in initiatives that do not prepare and protect workers during the response (Hearns and Deeny; Pardess, 2005).

Finally, history has shown that the relief response can result in discrepancies in power and the processes of healthcare delivery. As recently seen in Haiti, French representatives from Doctors Without Borders accused the United States of “mishandling” the situation in Haiti (Charbonneau, 2010). As a result, the United Nations signed an agreement with the United States outlining their responsibilities in the disaster response effort (Charbonneau). According to PAHO, as large relief organizations began to respond, participants indicated that responders and organizations who were already in Haiti before the earthquake felt a sense of possessiveness over their patients,

resources and area. With this egocentrism and possessiveness came territorialism and a sense of pride for both organization and country; as a result, partnerships among relief organizations in Haiti were important (Catlett et al., 2011; McCunn et al., 2010). A disorganized response characterized by poor communication among organizations can result in failure to perform outlined roles, reduced care of patients, and an overall ineffective response. This was one of the biggest challenges faced by professionals responding to the disaster in Haiti, and the literature indicates that some non-governmental and relief organizations entered the country with their own agendas and did not seem concerned with collaborating with the more experienced staff already on-site (Hopmeier et al., 2010). It is therefore essential to train healthcare workers about cultural sensitivity and the specific culture of the disaster-stricken country, and instruct them on how to effectively provide care without ‘taking over’ (Ursano et al., 2006). In a panel response regarding the relief efforts for Hurricanes Katrina and Rita, one physician was quoted as saying:

“I think it is important to refrain from marching in with one’s own ideas about that is needed and instead quickly find out who it is that you need to contact in order to offer your help and ... assess the most pressing needs.” (Ursano et al., p.9)

### ***2.3 Safety and Security***

Thomas (2004) states that “the UN sends unarmed aid workers into environments where member governments will not send their own armed troops” (p.156). He goes on to report that in 1997, the United Nations Refugee Agency reported that two-thirds of its aid workers were volunteering in high risk areas such as Rwanda, Bosnia, Sudan, Afghanistan and Baghdad. Recent literature has indicated that individuals responding to disasters are often at risk for primary abuse, which includes kidnappings, rapes, murders, robberies, as well as secondary abuse, which encompasses psychological traumatization (Pape et al., 2010; Thomas). These types of abuse were described in

narrative reports published by Dr. Pape and his medical team, who were responding to the aftermath of the earthquake in Port-au-Prince, Haiti. They claimed that their staff were frightened and reported that there were several armed criminals and escaped convicts in the volunteer camps (Pape et al., 2010; Rouzier et al., 2010). There were many incidents where escaped convicts were found stealing equipment from the camps, and responders and volunteers requested measures of support for improved safety for the clinic, refugees and volunteers, through physical measures such as the installation of barbed-wire and street lights (Pape et al.). Some workers recall only being provided with these barbed-wire fences one month after the request had been made (Hopmeier et al., 2010). Failure to supply adequate resources can result in attrition of the volunteer force and physical, mental and emotional ill-health (Loquercio et al., 2006). Thomas (2004) suggests these issues can be addressed by targeting system-level functions, such as organisational preparedness and risk assessment; and this involves three key factors: 1) individual commitment, 2) organizational preparedness and 3) risk assessment. Although there is no explanation of what each of these factors entails, there is reference to the need for improved organisation in support provisions to protect aid workers.

The literature highlights another issue in personal health and safety which is personal hygiene, including protection from infectious diseases and unsanitary living and work conditions. Most organizations required that their volunteers be vaccinated against Hepatitis A and B, Tetanus, Typhoid and Malaria pre-deployment (Chally et al., 2010). Another report suggests some medical workers were at risk for meningitis and that many were placed on prophylactic antibiotics (Parment, 2010). Other illnesses the volunteers were at risk for included gastroenteritis, dehydration and fatigue (Parment). In addition, shortage of water and prevalent waterborne

illnesses made it difficult for teams to maintain their regular hygiene (Fraleigh, 2010; Parmet). The “sites were not always sanitary and water supply was disrupted. For the first six days, showers were not available and after that, were rare” (Parmet, p.467). According to narrative and phenomenological reports, this experience was not uncommon and was cited again in a self-narrative report written by two nurses who recall their deployment to Haiti with their medical team (Ketchie and Breuilly, 2010). In addition to limited showers and meal options, they remember sleeping “on an open-air tennis court with 62 people under mosquito netting” (Ketchie and Breuilly, p.493) Other volunteer workers recall not being able to dispose of medical waste, not having air conditioning and being frightened of tarantulas and other insects present in the tents (Fraleigh, 2010). However, Ketchie and Breuilly claim there were few complaints because individuals were aware that resources were not available for other responders and Haitian citizens. Other narrative reports echo these positive attitudes, with one nurse claiming that she “felt many emotions, but no fear” (Rainey, 2010, p.1).

While physical security and personal safety pose an obvious threat to volunteers responding to disasters in foreign territories, the issue of legal security for these workers is one that is often overlooked. There is a need for standard legal protection for health and social service workers responding to national and international emergencies, resembling the emergency licensing for disaster situations that is currently found in some regions of the United States (Jagim, 2008; UEVHPA, 2007). While countries depend on healthcare professionals to volunteer their services in response to a disaster, a lack of legal protection puts these workers at risk for liability charges. In the past, aid workers have been accused of being both negligent and passive. The first accusation of negligence was witnessed in events such as Hurricane Katrina, when two nurses

were arrested and charged for second-degree murder, after administering an injection containing a combination of drugs believed to reduce pain and anxiety, to calm a hysterical patient (Curiel, 2006). In contrast, healthcare workers may be accused of being passive, should they be hesitant to respond out of fear of compromising patient health or facing legal consequences (Rosenbaum, et al., 2008). The literature highlights the need to evaluate the types of legal protection available to Canadian workers responding both nationally and internationally, to ensure the volunteer workforce is fairly protected.

#### ***2.4 Emotional and Mental Health Supports***

Much of the disaster literature fails to recognize that aid workers exposed to traumatic events during the disaster response are also prone to developing stress-related issues such as Post-traumatic Stress Syndrome (PTSD) and burnout (Thomas, 2004; Thormar et al., 2010). These conditions are exacerbated when responders work long hours (Ursano et al., 2006; Fraleigh, 2010).

Lorich et al., (2010) suggests that much of the stress experienced by disaster volunteers can be traced to lack of social support and disorganization in the emergency response. When faced with dire conditions, individuals with unrealistic expectations about their effect and capacity tend to feel 'burnt out' much more quickly than those whose coordinators have established clear goals and realistic outcomes (Thomas, 2004). One mental health physician emphasized the importance of ensuring that individuals in a position of power are able to establish these goals for the volunteers, while still protecting their own health and well-being (Ursano et al., 2006). To do so, these individuals need to possess both the physical and emotional resources that would allow them to perform their roles effectively and safely (Ursano et al.). One organization, the Center

for Disaster and Extreme Event Preparedness (DEEP), aims to train healthcare responders in these areas, so they can better respond to the emotional needs of the survivors, while protecting their own well-being (Shultz, 2007).

The DEEP Center outlines that all responders should: 1) Plan for the disaster role; 2) Practice for the disaster role; and 3) Prioritize for the disaster role. These techniques, in addition to six outlined strategies, will allow responders to achieve the three main goals in what is called the model for *Safety Function Action* (Shultz, 2007). These goals include *Maximizing Safety*, ensuring *Optimal Function* and taking *Effective Action*. Since 2003, the DEEP Center has held a number of full day sessions, in both Florida and in other regions of the US, Canada and Latin America, for healthcare responders and other public health professionals seeking to promote resilience and overall well-being in their own lives and in the lives of other disaster survivors (Shultz).

Several studies have suggested there is a need for effective management to help volunteers feel like they are part of a team, thus maintaining their motivation and reducing burnout and PTSD (Pardess, 2005; Hearn and Deeny, 2007). This approach is seen in the military, where individuals are trained to rely on their units for support, particularly during times when communication with family and other support networks are limited.

The literature is divided when it comes to the experiences of teams on-site in Haiti. In their narrative, Chally et al (2010) claim their tight-knit, inter-collaborative teams drove the effectiveness of the emergency response. These teams, which included nurses, physicians, oral

surgeons, pharmacists and radiology technicians, cited trust and constant communication within their unit as important aspects of their team dynamics (Chally et al.). Other volunteers recall a very different experience with lack of leadership (within teams and between organizations) leaving them feeling confused and alone (Fraleigh, 2010; Hopmeier et al., 2010). These conflicting views indicate further research is required to explore the aspects of management that facilitate positive mental health outcomes for volunteers.

Finally, it is crucial that volunteers are provided with emotional and psychological supports once they return from their deployment. Volunteers state that coming home was almost as difficult as being in Haiti, with recurring nightmares and general feelings of uneasiness (Fraleigh, 2010). In a narrative report that tells of one nurse's experience in Haiti, Fraleigh describes the nurse's experience of having to learn to 'forgive' the people in the United States for not understanding the magnitude of what was going on in Haiti. It can only be assumed that these experiences may affect the volunteers' personal relationships with friends and family, as well as potentially influence their behaviour in the workplace. There is thus a need for research that explores the supports that the responders require once they return from their deployment, to ensure a smooth transition back into 'normality'.

### ***2.5 Identified Gaps in Literature***

In order to ensure this study addressed gaps that were evident in the literature, four tables, outlining the findings regarding each support, are included below. The first of these tables, regarding Recruitment and Screening, indicates there is currently no formal protocol in place for response organizations looking to recruit and screen for new delegates. Thus, there is a need to explore the current screening and recruitment processes for front-line workers already deployed

in the emergency response. The mental health status and physical capabilities should also be considered when exploring the screening processes in place for professional responders. The second table, Training, shows there is no formal training guideline for health professionals preparing for deployment for international relief response.

Some of the implications for research include the need to develop effective training techniques that can avoid stress and confusion for health and social workers. The literature indicates these training initiatives should allow for an effective response, a clear understanding of roles, and improved care of patients. The third table shows how the security systems in Haiti were misaligned to the risks, which created challenges for responders in Haiti. According to the literature, future research should focus on safety and security in order to decrease the levels of attrition of health and social service responders in the international disaster response, and ensure they are protected physically, mentally and emotionally. The fourth and final table highlights the various gaps within emotional and mental health interventions for international disaster responders, particularly those in Haiti. According to the literature, there is a need to explore the types of psychological and emotional supports that will avoid PTSD, burnout and attrition of the volunteer workforce.

Table 1: *Recruitment and Screening*

| <b>Authors</b>  | <b>Type of Literature</b>    | <b>Summary</b>   |
|---|------------------------------|--|
| Ansell, C., Boin, A., & Keller, A. (2010)   | Empirical Article            | The transboundary dimensions of crises   |
| Chally, P. S., Hernke, D. A., & Scaz, L. (2010)   | Narrative                    | Lessons learned, from the perspective of three nursing administrators who participated in a medical mission in Haiti   |
| Fraleigh, J. M. (2010)  | Narrative                    | Describing a nurse's experience travelling to Port-au-Prince post-earthquake   |
| Frasca, D. R. (2010)  | Empirical Article            | Discussion of the benefits of using volunteers in a disaster response  |
| Jagim, M. K. (2008)   | Empirical Article            | Regarding the benefits of being a medical volunteer in an emergency response   |
| Lorich, D. G., Jeffcoat, D. M., MacIntyre, N. R., Chan, D. B., & Helfet, D. L. (2010)       | Commentary                   | Lessons Learned in the Haitian earthquake, from the perspective of physicians  |
| McCunn, M., Ashburn, M. A., Floyd, T. F., Schwab, C. W., Harrington, P., et al. (2010)      | Systematic Review            | A review of one hospital's communications and actions during the Haitian earthquake  |
| Merchant, R. M., Leigh, J. E., & Lurie, N. (2010)   | Perspective Piece            | Recommendations for planning and training during disasters, from the perspective of three physicians   |
| Schmidt, C. K. (2010)   | Article in a Nursing Journal | Discussion of the need for effective volunteer nurses in Haiti   |
| Thormar, S. B., Gersons, B. P., Juen, B., Marschang, A., Djakababa, M. N., & Olf, M. (2010) | Systematic Review            | Exploring the literature regarding the mental health of volunteers responding to disasters   |
| Ursano, R. J., Cerise, F. P., DeMartino, R., Reissman, D. B., & Shear, M. K. (2006)         | Commentary                   | A panel discussion involving a group of experts (clinical psychiatrists and public health officials) who were involved in the response for Hurricanes Katrina and Rita |
| Yonge, O., Rosychuk, R. J., Bailey, T. M., Lake, R., & Marrie, T. J. (2010)                 | Empirical Article            | A report discussing the use of a cross-sectional survey used to assess university students' willingness to volunteer in a pandemic                                     |

Table 2: *Training*

| <b>Authors</b>  | <b>Type of Literature</b>  | <b>Summary</b>   |
|---|--|--|
| Daily, E., Padjen, P., & Birnbaum, M. (2010)  | Comprehensive Review   | Review of the competencies developed for nurses responding to disasters  |
| Frasca, D. R. (2010)  | Empirical Article  | Discussion of the benefits of using volunteers in a disaster response  |
| Hearns, A., & Deeny, P. (2007)  | Phenomenological Study   | Regarding the lack of supports available to aid workers responding to disasters  |
| Hillel, C. (2010)   | Self-Narrative   | A physiotherapist's experience in Haiti  |
| Hopmeier, M. J., Pape, J. W., Paulison, D., Carmona, R., Davis, T., et al. (2010)                 | Plenary Discussion held by the RAND Corporation and the Vanderbilt Institute for Global Health and Vanderbilt School of Nursing – National Center for Emergency Preparedness | Perspectives of health and academic professionals regarding the disaster situation in Haiti  |
| Hsu, E. B., Thomas, T. L., Bass, E. B., Whyne, D., Kelen, G. D., & Green, G. B. (2006)            | Empirical Research Article   | Regarding the lack of evidence-based or standardized training initiatives for healthcare staff   |
| McCunn, M., Ashburn, M. A., Floyd, T. F., Schwab, C. W., Harrington, P., et al. (2010)            | Systematic Review  | A review of one hospital's communications and actions during the Haitian earthquake  |
| Pardess, E. (2005)  | Empirical article  | Regarding the importance of training and supporting volunteers in the general emergency response. Specific focus on the emotional and psychological needs of responders. |
| Raviv, S. (2010)  | Letter to the Editor   | Experience of an academic volunteer in Haiti   |
| Rodes, C. E., Pellizzari, E. D., Dellarco, M. J., Erickson, M. D., Vallerio, D. A., et al. (2008) | Panel Discussion at the International Society for Exposure Analysis Annual Meeting   | Discussion entitled "The Path Forward in Disaster Preparedness Since the WTC." Discusses issues of exposure, for responders and the public, that have been overlooked.   |
| Sphere Project (2011)   | Internet Resource/Training Handbook  | Recommendations on minimum standards in the disaster response  |
| Thomas, R. (2004)   | Conference Paper   | The types of psychological supports needed for aid workers   |
| Ursano, R. J., Cerise, F. P., DeMartino, R., Reissman, D. B., & Shear, M. K. (2006)               | Commentary   | A panel discussion involving a group of experts (clinical psychiatrists and public health officials) who were involved in the response for Hurricanes Katrina and Rita   |

Table 3: *Safety and Security*

| <b>Authors</b>  | <b>Type of Literature</b>  | <b>Summary</b>  |
|---|--|---|
| Annas, G. J. (2010)   | Empirical Article  | Legal Issues in the standard of care during emergencies   |
| Chally, P. S., Hernke, D. A., & Scaz, L. (2010)   | Narrative  | Lessons learned, from the perspective of three nursing administrators who participated in a medical mission in Haiti          |
| Curiel, T. J. (2006)  | Perspective Piece/ Self-Narrative  | Experience of a physician deployed to Hurricane Katrina. Stresses the need for disaster training for response personnel       |
| Fraleigh, J. M. (2010)  | Narrative  | Describing a nurse's experience travelling to Port-au-Prince post-earthquake  |
| Hopmeier, M. J., Pape, J. W., Paulison, D., Carmona, R., Davis, T., et al. (2010)                   | Plenary Discussion held by the RAND Corporation and the Vanderbilt Institute for Global Health and Vanderbilt School of Nursing – National Center for Emergency Preparedness | Perspectives of health and academic professionals regarding the disaster situation in Haiti                                   |
| Jagim, M. K. (2008)   | Empirical Article  | Regarding the benefits of being a medical volunteer in an emergency response  |
| Ketchie, K., & Breuilly, E. (2010)  | Self-Narrative   | Two nurses' experiences being deployed to Haiti with a medical team   |
| Loquercio, D., Hammersley, M., and Emmens, B. E. (2006)   | Network Paper written and published by the Humanitarian Practice Network   | The understanding of staff turnover in Humanitarian Agencies  |
| Pape, J. W., Deschamps, M. M., Ford, H., Joseph, P., Johnson, W. D., Jr, & Fitzgerald, D. W. (2010) | Self-Narrative   | Experiences and recommendations, from the perspective of a physician and his medical team responding to the disaster in Haiti |
| Parmet, A. (2010)   | Letter to the Editor   | Written by a physician describing the situation in Haiti  |
| Rainey, C. (2010)   | Self-Narrative Article/ Nursing Magazine Journal   | Written by a nurse returning from Haiti   |
| Rosenbaum, S., Harty, M., & Sheer, J. (2008)  | Empirical Article  | Legal liability for healthcare professionals and volunteers during an emergency response                                      |
| Thomas, R. (2004)   | Conference Paper   | The types of psychological supports needed for aid workers  |

Table 4: *Emotional and Mental Health Supports*

| <b>Authors</b>  | <b>Type of Literature</b>  | <b>Summary of Literature</b>   |
|---|--|--|
| Chally, P. S., Hernke, D. A., & Scaz, L. (2010)   | Narrative  | Lessons learned, from the perspective of three nursing administrators who participated in a medical mission in Haiti   |
| Fraleigh, J. M. (2010)  | Narrative  | Describing a nurse's experience travelling to Port-au-Prince post-earthquake   |
| Hearns, A., & Deeny, P. (2007)  | Phenomenological Study   | Regarding the lack of supports available to aid workers responding to disasters  |
| Hopmeier, M. J., Pape, J. W., Paulison, D., Carmona, R., Davis, T., et al. (2010)           | Plenary Discussion held by the RAND Corporation and the Vanderbilt Institute for Global Health and Vanderbilt School of Nursing – National Center for Emergency Preparedness | Perspectives of health and academic professionals regarding the disaster situation in Haiti  |
| Lorich, D. G., Jeffcoat, D. M., MacIntyre, N. R., Chan, D. B., & Helfet, D. L. (2010)       | Commentary   | Lessons Learned in the Haitian earthquake, from the perspective of physicians  |
| Pardess, E. (2005)  | Empirical article  | Regarding the importance of training and supporting volunteers in the general emergency response. Specific focus on the emotional and psychological needs of responders. |
| Shultz, J. M. (2007)  | Internet Resource/Training Resource  | Training initiative for health responders and public officials responding to disasters (DEEP project)  |
| Thomas, R. (2004)   | Conference Paper   | The types of psychological supports needed for aid workers   |
| Thormar, S. B., Gersons, B. P., Juen, B., Marschang, A., Djakababa, M. N., & Olf, M. (2010) | Systematic Review  | Exploring the literature regarding the mental health of volunteers responding to disasters   |
| Ursano, R. J., Cerise, F. P., DeMartino, R., Reissman, D. B., & Shear, M. K. (2006)         | Commentary   | A panel discussion involving a group of experts (clinical psychiatrists and public health officials) who were involved in the response for Hurricanes Katrina and Rita   |

The tables shown above were used to develop an interview guide, to ensure each of these supports were explored with the participants. A preliminary model outlining the relationship between the various types of supports that were identified in this literature review can be seen in Chapter 3: Methodology. As demonstrated in Chapter 2, most of the literature on the disaster in Haiti is in the form of either a narrative report or a phenomenological study. Because the goal of this study is to move beyond a description and generate an explanatory model using theoretical constructs, the use of the Grounded Theory approach is appropriate (Creswell, 2007). According to Creswell, p.63):

“the intent of a grounded theory study is to move beyond description and to generate or discover a theory, an abstract analytical schema of a process. Participants in the study would have all experienced the process, and the development of the theory might help explain practice or provide framework for further research.” (p.63)

He goes on to state that grounded theory uses a ‘grounded’ approach in that it develops theory according to those participating in, or witnessing, the selected issue (Creswell, 2007). As stated in Creswell’s third edition,

“On the practical side, a theory may be needed to explain how people are experiencing a phenomenon, and the grounded theory developed by the researcher will provide such a general framework.” (p.88)

The following chapter will outline the use of this methodology, in relation to the findings from the literature review.

### **CHAPTER 3: Methodology**

In accordance with Strauss and Corbin's (1990) structured approach to grounded theory, the model that was used to guide this research is presented below. This model was created based on the literature review, which identified various elements of the *Context and Conditions*, *Causes*, *Strategies and Consequences* (see Figure 1 below) and allowed for the development of a relevant, open-ended interview guide. As outlined in the objectives of this study, a process model describing the *Consequences* category was developed based on the findings of the primary data.

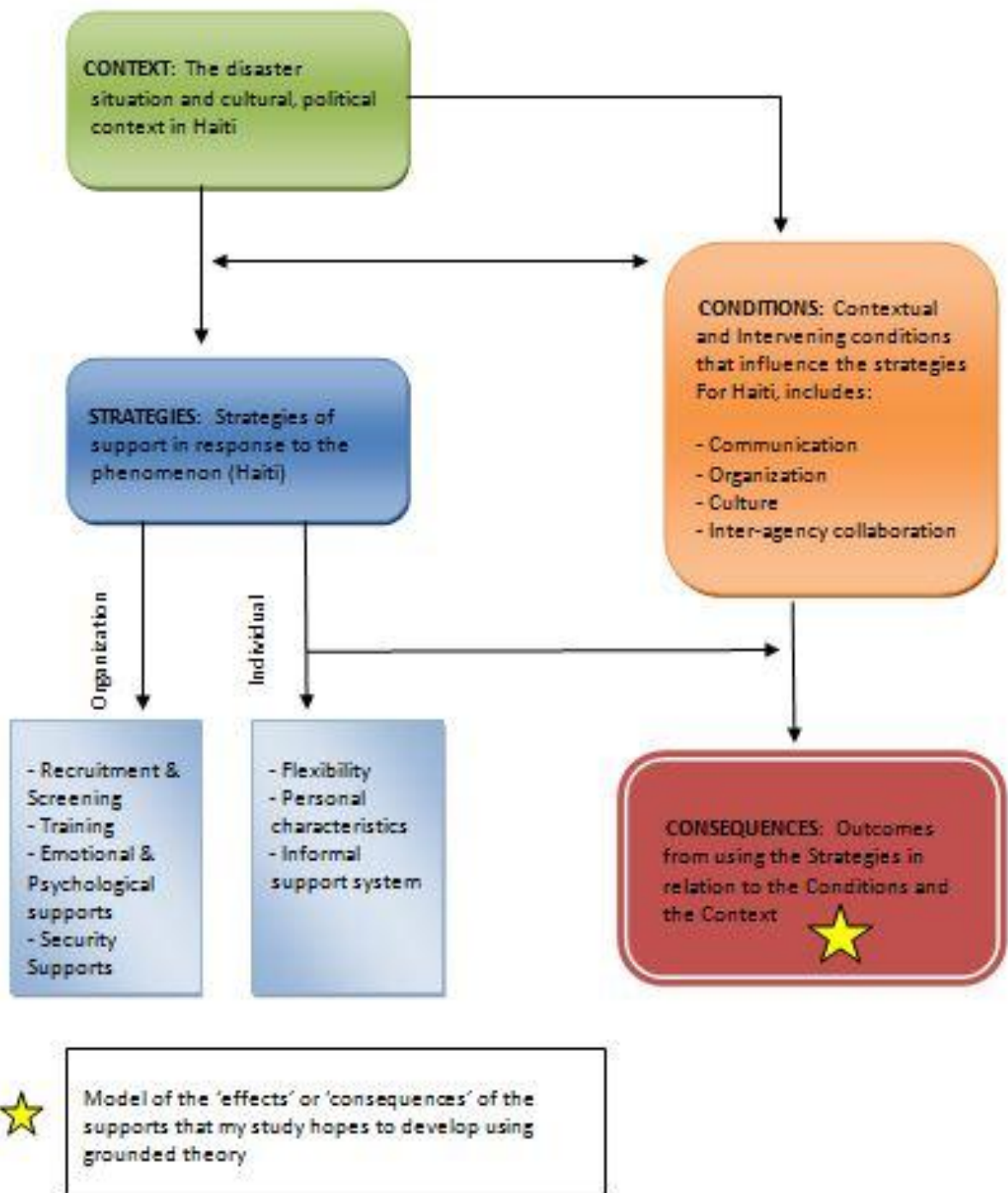


Figure 1: Preliminary model depicting elements of Grounded Theory

The purpose of this study was to understand and evaluate the lived experiences of health and social service workers deployed to Haiti in response to the 2010 earthquake and to learn from these experiences the means to improve the delivery of support systems for disaster relief health and social service workers. By framing this study qualitatively, detailed descriptions regarding the effectiveness of the various forms of support were collected and explored.

To develop this theory, the research team utilized an open-ended interview guide to discover what is known as “the core phenomenon”, which in this case is *the need for support for health and social service providers responding to the disaster in Haiti*. Questions regarding the cause for the need for supports, conditions and context in Haiti, strategies used to support the core phenomenon, and the consequences of this phenomenon were used to reach data saturation and discover the underlying consistencies, evidence and concepts pertaining to how the front-line responders were affected by the types of supports available before, during and after their deployment.

### ***3.1 Participants***

Participants included health and social service providers from a variety of organizations including small and large non-governmental organizations, university-based organizations and hospitals, the military and Canadian government, faith-based organizations, as well as an independent volunteer. A total of n=21 key informants were recruited. The inclusion criteria for the study required the individual to have served as a health or social service responder in Haiti during or following the earthquake disaster of 2010. For the purpose of this study, health and social service workers included general practitioners, surgeons and anaesthesiologists, disaster

response coordinators, nurses, psychologists, rehabilitation therapists, emergency response medical search and rescue teams, epidemiologists, and social workers.

In order to maintain the confidentiality of the participants, key informants are referred to by their position during deployment and the type of organization with which they were deployed, rather than the organization name. Other demographic data, including sex, years of experience, dependents, date of departure, length of stay in Haiti, and whether the deployment was volunteer or mandated, were collected to explore trends and determine various factors that influence responder experiences. These were not explicitly stated in the results, so as not to compromise the confidentiality of the participants.

Table 5: *Demographics of the key informants\**

| <b>Organization Type</b>                           | <b>Occupation</b>   |
|--|---|
| NGO  | Physician (n=7)<br>Nurse (n=2)<br>Program manager (n=1)   |
| Faith-based organizations                          | Social Worker/Psychologist (n=2)<br>Program manager (n=1)<br>Physician (n=1)                        |
| Independent  | Nurse (n=1)   |
| Governmental/Military                              | Program manager (n=2)<br>Epidemiologist (n=1)<br>Nurse (n=1)<br>Physician/Project coordinator (n=1) |
| Bilateral non-state institution (eg: universities) | Physician (n=1)   |

*\*NB: Some of the delegates' organizational affiliations and occupations overlapped (eg: surgeon and project lead/ NGO and university-based). The primary occupation/affiliations are listed above.*

### ***3.2 Recruitment Protocol***

Once approval from the University of Ottawa Research Ethics Board was received, the key informants for this study were recruited via email notices distributed through various NGOs, Canadian and international relief organizations, the Canadian government and military, and Canadian university relief programs. Healthcare professionals who returned from deployment in Haiti, as well as coordinators and project leads who were involved in the disaster response were recruited to explore the lived experiences from both front-line and management perspectives. These individuals were recruited using purposeful and snowball sampling (Trochim & Donnelly, 2008). The key informants were provided with letters of information and consent forms (Appendix B) that explained the objectives of the study and their roles as participants, and they received assurance regarding the anonymity and confidentiality of their data. After the initial request to participate, the key informants were contacted, by email or telephone, to arrange a time and date for the interview.

Each key informant was asked to participate in a single audio-recorded telephone or face-to-face interview (depending on the participant's preference), approximately one hour in duration. They were also given the option of having the interview conducted in either French or English and the interview guide, consent form and letter of information were all professionally translated to French. All but one participant chose to have their interview conducted in English. Twenty of the twenty-one interviews were conducted by the primary researcher. Because the primary researcher's knowledge of the French language was limited and insufficient to conduct a quality interview, the French interview was conducted by a research assistant who was briefed on the research project. The participant was assured that the researcher also signed a confidentiality

agreement, in order to ensure that confidentiality was not compromised. The key informants were asked questions regarding their experiences in Haiti and the specific elements of the support systems that were offered to them before, during, and after the response. They were asked to reflect upon the effectiveness of these support systems and make recommendations for future improvements. In addition to the recordings, detailed notes and observations were documented after each interview, to ensure self-reflexivity was achieved and bias reduced (Miles and Huberman, 1994; Creswell, 2007).

A semi-structured, open-ended interview guide (see Appendix A) was sent for ethics approval prior to data collection. Hearn and Deeny (2007) developed an organizational model upon which they framed their literature search for their study regarding support issues for aid relief workers in emergencies. While this model does not focus specifically on issues that pertain to healthcare workers, many of the discourses can be applied to this study. Themes from the literature which informed the interview questions for this study included issues around the importance of training and preparation pre-deployment; identifying dynamics in an organized disaster response; understanding the effects of stress and the response on health and social service workers; establishing clear roles for workers; and maintaining an organized response system.

To ensure saturation of the data was reached, the constant comparison method was used (Trochim & Donnelly, 2008). The semi-structured interview guide allowed the primary researcher to add questions that allowed for the identification of the core phenomenon and an exploration of the various areas related to this phenomenon. This process thereby allowed for the

exploration of the causal conditions, strategies, contextual and intervening conditions, and the consequences.

### ***3.3 Data Collection, Analysis and Writing***

All of the interviews, researcher's memos and reflections were transcribed, coded and analyzed using *NVivo9* qualitative software ([http://www.qsrinternational.com/products\\_nvivo.aspx](http://www.qsrinternational.com/products_nvivo.aspx)). In order to confirm the accuracy of the data, the participants were invited to participate in member checking of their transcripts, in order to confirm whether the collection of the data was consistent with their lived experiences. In accordance with grounded theory framework, the data were analyzed using inductive, open codes in order to identify emergent themes from the data (Miles and Huberman, 1994; Creswell, 2007).

The data were categorized based on general, emergent themes. This process included the development of higher level pattern codes to determine relationships between the identified themes. To remain consistent with structured grounded theory (Strauss and Corbin 1990; Creswell, 2007), emergent themes were identified based on the categories surrounding the central phenomenon. This central theory was identified as the “*need for supports for Canadian health and social service providers responding to the disaster in Haiti*”. These were defined as: 1) *Contextual and Intervening Conditions*: a description of the societal, organizational and personal contexts and conditions that were present during the response; 2) *Causal Conditions*: reasons driving for the need for supports; 3) *Strategies*: systems or interventions implemented that influenced the responder's ability to respond with resiliency to the context and conditions. The final category was 4) *Consequences*, which are the “outcomes from using the *Strategies* in relation to the *Context and Conditions*” (Creswell, 2007, p.65). As previously outlined, one of the planned outcomes of this study was to generate a model that explains this particular node,

which Strauss & Corbin identify as the conditional matrix (Creswell, 2007; Miles and Huberman, 1994). As defined by Creswell (2007),

“the conditional matrix is a coding device to help the researcher make connections between the macro and micro conditions influencing the phenomenon. This matrix is a set of expanding concentric circles with labels that build outward from the individual, group and organization to the community, region, nation and global world.” (p.87)

Analysis meetings were regularly scheduled with my thesis supervisors throughout the duration of the study to ensure the data collection and analysis were consistent and accurate.

According to Miles and Huberman (1994), trustworthiness in qualitative data can be achieved by following certain steps which include: 1) objectivity / confirmability, 2) reliability / dependability / auditability, 3) internal validity / credibility / authenticity, and 4) external validity / transferability / fittingness. The following section outlines each of these conditions.

1. Objectivity / confirmability: The procedures through which the data were collected are clearly outlined and examples from interview quotations are included in the *Findings* section of the study. Because grounded theory relies heavily on the researcher to develop themes based on the data, it is important to declare researcher bias. This allows for theoretical sensitivity and a clear representation of the data (Weed, 2009). In order to ensure that the literature review, which was specifically focused on health systems and emergency preparedness, did not affect the thesis models and results, it was necessary to meet regularly with thesis supervisors. A running memo of thoughts and reflections were recorded from these meetings. Finally, the participants were given the opportunity to

member check the data, which, as recommended by Weitzman (2000) is a key way to ensure that the research team accurately captured the data.

2. Reliability / dependability / auditability: A copy of the interview guide (see Appendix A) and a consent form (Appendix B) were sent to the University of Ottawa Ethics Board prior to conducting the interviews in order to ensure that the questions were both clear and appropriate. An audit trail of this study, that includes transcripts, project memos and annotations, is available and was organized using *NVivo9* software.
3. Internal validity / credibility / authenticity: The use of “thick descriptions”, which are detailed descriptions that present the context and emotion of the quote, are crucial to the validity of this study (Creswell, 2007). The theories that were developed in this study are substantive and do not seek to be generally applied outside the boundaries outlined in these methods (Weed, 2009). Triangulation using the literature was used to re-evaluate the findings post-analysis. Outliers and extreme cases, including independent responders and those in the military, were also interviewed to test the boundaries of the proposed theory.
4. External validity / transferability / fittingness: As later discussed in Chapter 7, *Areas of Future Research*, the development of a model depicting the responders’ experiences using the current systems of support has many implications for future research. This model will allow response coordinators and policy makers to identify both the strengths and the gaps in the current systems of support available to Canadian healthcare and social service workers responding in Haiti. These findings will contribute to the preparation and

support of responders by allowing for the improvement of future efforts in humanitarian relief.

Once the coding was completed, the data were analyzed to look for emergent themes and relationships between the identified nodes. These findings are summarized and presented using quotations from the interview transcripts. Two models were generated to a) show the developed theory and b) describe the effects of the *Context and Conditions, Cause, Strategies, and Consequences*. Finally, all of the available supports were listed in a table and frequencies were calculated, based on the participant interviews. These numbers were computed by calculating the number of participants who claimed having received a particular support or highlighted a gap among certain supports. This number was then divided by the total number of participants and a total percentage was calculated, to gauge the number of individuals who had the same experiences or identified similar gaps. This information was used to make recommendations and highlight the gaps in the literature.

## CHAPTER 4: Results

In keeping with the style of Strauss and Corbin's (1990) approach to grounded theory, the results for this study are presented according to the categories previously outlined: *Context and Conditions, Causal, Strategies, and Consequences*. As shown in Figure 2, the central phenomenon of this study is the *Need for Supports for Canadian Health and Social Service Providers who responded to the disaster in Haiti* and the contextual, causal and consequential conditions that stem from these supports. As seen in the model, the *Context* of the response was a central feature of the aftermath of the earthquake. The first contextual factor, the country context, refers to this context within Haiti and the Haitian society at the time. Secondly, the context of the various relief organizations was explored to determine the organizational and coordinating factors that affected the response context. Finally, the personal context of the individuals responding to this disaster was analyzed. Table 5 summarizes the delegates' motivations to respond to the disaster, as well as demographic information.

In reaction to the contexts, the *Causes* of the central phenomenon emerged and integrated with the need for supports along two main themes. The first cause for support related to unclear expectations, which led to feelings of uncertainty and confusion, fear, lack of communication and awareness, and Post-Traumatic Stress Disorder. These feelings stemmed from a variety of causes, including unclear roles on-site, disorganization within teams and between organizations, and insufficient safety protocols and resources, training, and psychological and physical supports. The second main cause of the need for support is what we refer to as 'the lens'. It relates to participants' perceptions that influence their experiences, attitudes and personal initiatives.

In response to the contexts and conditions, many organizations employed two main strategies to support their delegates. The first of these strategies, Instrumental Supports, refer to many of the supports outlined in the literature review, and include safety and security supports, training, psychological and emotional supports, as well as physical supports. The second category of strategies focuses on Communication and Leadership. These include supports such as recruitment and screening techniques, creating positive team dynamics, appointing effective team leaders, ensuring clear and consistent communication between Canadian headquarters and the on-site base, and highlighting the need for accurate media coverage of the disaster situation, in order to avoid confusion and unclear expectations.

Finally, the *Consequences* of the response refer to the impacts, as perceived by the participants. The consequences can be positive or negative, and are determined as a result of an interaction between the organizational strategy, and an individual's expectations and personal lens. These consequences were integrated in relation to the context, causes and strategies, to develop a theory describing the impacts of the various supports provided to Canadian responders in Haiti.

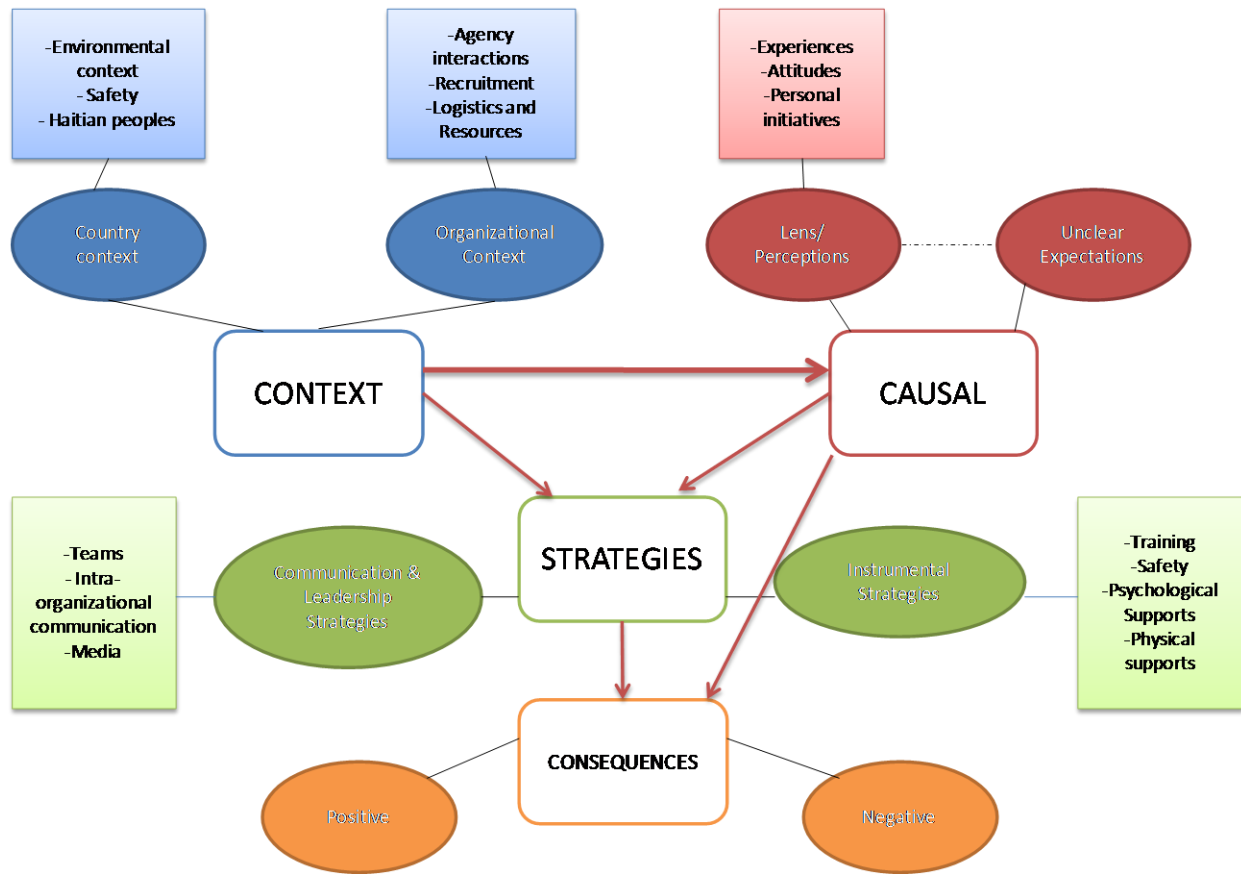


Figure 2: Model of the Context, Strategies, Causes and Consequences of the Need for Supports for Canadian Health and Social Service Providers Responding to the Disaster in Haiti

## 4.1 Context

The context refers to the societal, organizational and personal attributes and conditions that were present during the response. The following section outlines the Country Context as well as the Organizational Context in Haiti at the time of the disaster. The country context includes an exploration of the environment, safety and security in the region, and the culture of the Haitian people. The organizational context explores the interaction between multiple relief agencies, recruitment, and logistics and resources within organizations.

### *Country Context: Environment*

The 2010 disaster in Haiti was both unique and challenging for responders. Known as the nation of NGOs, the country context in Haiti was already unstable prior to the earthquake. The impact of the earthquake is better understood through an exploration of the country context pre-disaster. As described by one of the participants,

“I think Port-au-Prince used to be really a mess anyways. The first time I had ever gone to Port-au-Prince [pre-quake] I thought it was a nuclear blow out. Really, I thought they’d had a war and I thought, why are they bringing me in on a back street, where is the real road?” (Participant 9, Anaesthesiologist, Large Faith-based organization)

This context greatly affected the capacity for an effective response. As stated by one participant,

“It was more of a panic as opposed to what I saw in New Orleans and Mississippi. Just because this was a people that already had nothing and now they had even less than nothing and it was on such a huge scale...” (Participant 2, Nurse, Independent volunteer)

The earthquake created a barrier to food access, road access and phone communication, making it very difficult to assess the situation on the ground and report back to the appropriate authorities. As stated by one participant, “there was a lot of unknown” (Participant 1, Program manager, Canadian government).

The earthquake severely destroyed the infrastructure of the country. Surprisingly however, as demonstrated through the quotes below, the context of the country after the earthquake was very different than what would be typically assumed of this scenario,

“All of downtown had collapsed, and it was very quiet. I think I expected more noise, more hustle and bustle but it was very quiet, you know, there’s no buzz of electricity, there’s no vehicles...there’s just no noise! It was very strange.” (Participant 9, Anaesthesiologist, Large faith-based organization)

The devastating earthquake was followed by aftershocks, including one 5.9 magnitude aftershock just two days after the disaster, that shook some of the participants out of bed. According to one participant,

“The earth wasn’t really stable at that point...I think the aftershock was just as strong as the initial earthquake, like it probably was counted as its own whole [earthquake], like after seeing the damage of what it had done and then experiencing another one, and you could just hear the millions of people screaming in the streets, it was terrifying.” (Participant 2, Nurse, Independent volunteer)

These aftershocks not only destroyed the already weakened infrastructure in the country, but also instilled great fear in both the responders and the Haitian people. According to a psychologist

who responded to the disaster, “during one of the big aftershocks, a huge crack showed up and none of the Haitians wanted to sleep in the hospital...that was kind of scary” (Participant 20, Psychologist, Faith based organization). In addition to fear of the aftershocks, the responders, particularly health professionals, were faced with the challenge of responding in a situation where crumbling infrastructure and frequent tremors in the earth made amputations an exceedingly common procedure.

As illustrated by one of the participants,

“The hospital was taken over by all the people who were amputated. I mean that was nightmarish...when the earthquake happened, buildings fell on top of people. So when doctors came...and seeing all these people stuck under buildings, the only thing they could do was to cut them out.” (Participant 13, Psychologist, NGO)

In addition to the gruesome injuries, Canadian responders were faced with the smells and sights of thousands of dead and rotting bodies. As one physician stated,

“There’s bodies that they are burning because they’re rotting and smelling and [there is] no one to identify them so they’re burning them in the intersections.” (Participant 9, Anaesthesiologist, Large faith-based organization)

However, the earthquake was not the only challenge that Haiti faced. In 2011, the country faced a cholera outbreak that killed thousands of Haitians. In addition to both of these disasters, the responders were faced with harsh conditions of poor infrastructure and supplies as well as extreme heat. As one mental health counsellor noted,

“It was extremely hot for 7 AM and to do that kind of work in that heat, sleeping in tents with goats and roosters and wild pigs running around your tent 24/7 and sleeping about two hours, three hours a night, for me was probably the most challenging thing. And to stay sharp, to do your mental health counselling...those circumstances were probably a much bigger challenge than the situation at hand.” (Participant 15, Psychologist, Faith based organization)

As demonstrated in the country context, the conditions in Haiti were extremely harsh. Despite this, many delegates found themselves running on adrenalin, not realizing what they had gone through until upon their return. According to one participant,

“The food they sent you was ridiculous, big bags of animal crackers and little hot dogs in cans...I was thirsty. And you get sick and tired and headachy...it definitely wears on you...I had very few clothes because I couldn't pack enough clothes to accommodate all of my medical supplies...I was freezing cold, I put on all the clothes I could find at night, because we're actually on the mountain and it's really cold...we ran out of water to bathe us...it's not something that you could sustain for a long time.” (Participant 9, Anaesthesiologist, Large faith-based organization)

A similar account, given by Participant 13 who deployed to Haiti with a faith based organization, showed that even everyday tasks, such as showering and sleeping, were difficult in this disaster context,

“You'd stand in the shower with your socks on, and don't forget it's like ninety-some-odd-degrees, plus humidity, every day. So you're hot and you sweat and you want to have a shower...the drains are filled with junk and hair...and you're standing in all this

yucky water that's coming up from the drain...and slimy walls, really it was slimy.”

(Participant 13, Psychologist, Faith based organization)

### *Country Context: Safety and Security*

The data showed many examples of security issues where organizations were faced with instances of robbery and kidnapping of delegates. There were also instances of local people wandering into the campsites, causing fear. The following two quotations were from an interview with a psychologist who stated “we had people that were concerned about their personal safety, on a lot of different fronts, and that's not good for volunteers. Haiti can be a very dangerous place” (Participant 20, Psychologist, Faith-based organization).

“People came into our camp at like two, three o'clock in the morning, people walked around....one of the medical directors actually said that he saw people walking around with machetes; nobody did anything, like they were probably just there to give a message, but anyway, the message was given.” (Participant 20, Psychologist, Faith based organization)

In addition to the security threats in Haiti, delegates also needed to consider the risk of physical and health safety. Because of weakened infrastructure and the state of Haitian cities, there were many injuries indirectly caused by the earthquake. One physician recalls, “There were accidents, they were [responders] trying to pick up all this rubble and sandbags falling on their heads and all kinds of things were happening.” (Participant 6, Anaesthesiologist, Large NGO)

Other health problems stemmed from a lack of available resources to treat both Haitian patients and relief workers. These effects were worsened during the cholera outbreak. As some of the participants recall,

“It’s a risk to be a Canadian responder in Haiti because if you’re there and you’re bleeding, there’s no blood in Haiti, if you’re a massive trauma victim, you’re not gonna get that kind of care, if you need some cardiac procedure, you’re not gonna find that in Haiti. So that’s a very real risk that you’re taking on when you’re going there.”  
(Participant 9, Anaesthesiologist, Large faith-based organization)

“We had two water filtration systems but people were still getting very sick on our team, despite all the precautions and bringing our water purification pills. People were getting very sick, to the point where one team member had to be flown out [back home]”  
(Participant 15, Psychologist, Faith based organization)

Team leaders recalled that the heat, lack of medicine, and stressful conditions led to many delegates falling sick and only recovering by the time their week of responding was over. These safety and security needs consumed much of the energy of leaders and took up both organizational time and resources.

### ***Country Context: Haitian People***

Many of the delegates interviewed were amazed at the positive attitudes and resilient spirits held by the Haitians during this difficult time. As stated by one participant,

“I guess the most amazing thing you realize there is you have this expectation on how they should behave...what people were saying was ‘give us jobs, give us jobs. Don’t give us food or give us money, give us jobs’ ...they’re not helpless, they’re proud and they’re strong...I was quite humbled and amazed by their strength. A lot of them are quite religious...people were grateful [for the support].” (Participant 18, Surgeon, Large NGO)

Despite having positive spirits, the Haitians are an opinionated people that did not idly watch their country be taken over. One physician stated, “What I really like about the Haitian people is that they say what they think, and sometimes very loud....if they have something to say they will say it.” (Participant 9, Anaesthesiologist, Large faith-based organization)

Many delegates were conscious of the importance of understanding the context of a country to best assist its population. As stated by a one physician,

“I think [what] is really important is compassion and understanding. One of the regretful things for the experience in Haiti is when the foreign groups arrived to help, they hurt the Haitians quite severely by pushing them aside, instead of coming alongside them and help[ing] them continue, which would help. They pushed them aside, as if they knew nothing.” (Participant 16, Anaesthesiologist, Bilateral non-state institution)

Responders also needed to ensure they were providing the Haitian medical staff with the appropriate equipment, in accordance with their needs. As stated by Participant 11,

“There were a lot of very sophisticated laparoscopic instruments that nobody was ever going to use, so it was just a waste of money. People had thrown things together from their hospital and sent it over and things which nobody was ever going to use and that is not uncommon.” (Participant 11, Surgeon, Large NGO)

### ***Organizational Context: Interaction between multiple relief agencies***

The *organizational context* refers to the context of the actions and interactions of the multiple relief agencies in Haiti. The interaction between multiple relief agencies was explored to provide an understanding of the organization and coordination of the relief response. Furthermore, a

description of the logistics and resources involved in the response further explains the challenges faced in this context.

Upon arrival, many of the delegates witnessed a system in chaos, void of strong leadership of coordinating and government bodies, both of which had become compromised in the earthquake. The UN lost many of its own delegates and infrastructure in the disaster, and one of the participants commented on how the presence of multiple teams and organizations made for a disorganized and chaotic response. The country context only heightened these frustrations.

“So if you’re trying to coordinate, you know, 200 people in a tent, it’s a lot harder than if everyone knows one another and they can sit down and make decisions around the table, but there were so many people, so many new players, that I mean, Haiti was known as the Republic of NGOs even before the earthquake so it was a frustrating time and very difficult.” (Participant 1, Program Manager, Government)

Because there was no clear chain of command for the response, the initial organizational result was disorganization and a lack of coordination. According to a project coordinator and physician,

“Everybody wants to show that they are there and they are the ones doing the work. They are well intentioned, there’s no question. But because it’s not coordinated, sometimes they can harm each other. What’s needed is a command center and someone to be in charge and truly look after that.” (Participant 16, Anaesthesiologist, Bilateral non-state institution)

In addition to the disorganization was confusion between and within organizations. As stated by Participant 7,

“Ça peut ressembler à la tour de Babel assez vite. (*rires*). Parce qu’au début c’est qu’y a le côté euh, c’est qu’y a des organisations mais toutes les organisations en fait, faut qu’elles s’arrangent pour être vues.” (Participant 7, Physician, Large NGO)

Moreover, the idea of “egocentrism” of organizations was present in the data. As stated by a participant native to Haiti,

“One of the problems there was, first of all, it was very disorganized and uncoordinated. And the main reason for that had to do with the sense of egocentrism that prevailed from among the people coming to help in that you know, they knew better, how they knew best...” (Participant 16, Anaesthesiologist, Bilateral non-state institution)

There were over 200 organizations that were registered in the PAHO health cluster. However, project coordinators witnessed that it was typically the larger organizations that had representatives and a voice at these health cluster meetings. Smaller NGOs did not have as strong a voice and faith-based organizations were not always present at these meetings. Those who were present at the cluster meetings found the atmosphere to be, at times, hostile and uncoordinated. The interview data showed that responders from larger organizations and NGOs found that their organizations worked best with other large organizations. They were at times willing to collaborate with each other, and saw other responders as peripheral. As stated by a participant from a larger relief organization,

“...there’s a lot of things these groups can do in different circumstances...that can be remarkably fantastic work...but when you’re dealing with a major catastrophic disaster response, this isn’t the time for the church group to send a surgeon or the university to send one guy...[they don’t have sufficient resources] so they become a major problem.”

(Participant 8, Physician, Large NGO)

“If you wanted to work well within the cluster then you had to play by the rules of the ‘big organizations’ and make sure that you did not invade territories. There was a lot of territorialism in the cluster meetings. It wasn’t about how can we work together? ...Nobody had the authority to remove another organization but there was some pressure.”

(Participant 9, Anaesthesiologist, Large faith-based organization)

There was pressure to conform with large NGOs among independent volunteers, small NGOs and faith based organizations. The data indicates that the organizational context affects a responder’s attitude towards the response. The contrasting experiences are depicted in the two quotations below, the first from an independent volunteer who felt her contributions were stigmatized by the larger organizations in Haiti, and the other from a physician with a larger organization.

“I was thinking ‘we’re all here trying to do the same thing’ ...it almost seemed that people thought they were better because they had that jacket [from a large NGO] on...just because you saw 100 people and we saw 10 doesn’t mean that it’s any more important.”

(Participant 2, Nurse, Independent volunteer)

“They [independent volunteers] become a real problem and they end up being the kind of people who get injured, who get kidnapped, who get themselves into difficulty that’s

predicable...so they become everyone's problem when bad things happen to them...and they're sucking resources and creating a bad reflection...it can really be a mess.”

(Participant 8, Physician, Large NGO)

### ***Organizational Context: Recruitment***

While the screening and recruitment techniques currently in place are inconsistent between organizations, there are some common characteristics that recruiters look for in responders. Some of these traits that are considered ideal in this context are highlighted below in participant quotes,

“I guess number one is to be able to focus on the task at hand. So somebody who doesn't get overwhelmed with too many things going at once, who's able to compartmentalize and really dedicate one's energies to one thing. People who are humble, or easy to work with, and I guess the number one is flexibility.” (Participant 18, Surgeon, Large NGO)

The participant went on to state that flexibility was key to remaining resilient in a context where there is not much control, as well as uncomfortable living situations, scarce meals, and other difficult situations. The same was stated by Participant 15 who said “we needed to adhere to the three Fs. You had to be flexible, flexible, flexible”. In addition to these personality traits, some organizations utilized ‘fitness tests’ to screen for pre-existing medical conditions. However, one identified gap in this type of screening is that, unlike the military, NGOs did not appropriately screen their delegates to ensure that they would remain physically resilient when put in a harsh context like Haiti. As stated by one participant,

“The difficulty becomes if somebody essentially is not physically fit and there are probably some agencies that you know, they may have a look at that policy potentially. In

the military, you know, there is a standard there, but I certainly know that in [organization name], nobody made me do any pushups, situps or you know, can I jog a mile, that kind of thing.” (Participant 12, Program Manager, Government)

Finally, one of the strategies used to select delegates was a roster system, with the names and skills of individuals who have been trained, or have previously responded effectively to a disaster. Organizations stockpile the available CVs and skill sets, in order to tap into their human resource bank, should a disaster strike. According to one participant,

“You know who people are and what their skill sets are, what their availability is and where they’ve worked in the past, so you won’t have complete newbies being sent to a big emergency, you don’t want somebody going to Haiti on their first emergency, right? You want experienced people who can be effective from the minute they land pretty much.” (Participant 1, Program Manager, Government)

Participant 20, a Psychologist/Director who is responsible for screening delegates in her organization, recommended effective strategies for recruitment, stating,

“The idea is that you recruit when there’s nothing traumatic going on, so that way you really have time to do training, answer questions, check out the background of volunteers...but when there’s been a big disaster, you’re always begging people that are like what we’d call maybe walk-up volunteers. And so you have to be prepared to try to do some kind of training or check out before they go.” (Participant 20, Psychologist, Faith-based organization)

A disaster such as Haiti required a ‘special’ type of volunteer, due to the context of the disaster and the country. One participant claims that Haiti was a unique context that required managers to “raise the bar” on their volunteers. Unlike other disasters, such as Hurricane Katrina, or 9/11, where volunteers could easily drive to a neighbouring town or state that was intact, for escape and relief, the devastation in Haiti was vast and required volunteers who were physically and emotionally healthy and prepared. It was also important for recruiters to realize, however, that good health and credentials alone did not necessarily ensure resiliency in the Haitian context. Despite efforts to effectively recruit and screen delegates, it is important to remember that, while individuals can prove to be effective within their Canadian context, the same may not apply when placed in a disaster zone. An individual’s training, past experience, attitudes and willingness to work in a team were shown to be crucial for their resiliency on-site. Participants responsible for recruitment advised many volunteers, who wanted to contribute to the disaster effort in Haiti, to providing support from home, rather than deploying to the disaster site.

***Organizational Context: Logistics/Insufficient Resources***

Many organizations came into the response with a positive, “can-do” attitude; however, smaller NGOs and ad-hoc initiatives, although rooted in positive spirits, often did not possess the capacity to respond and provide for their delegates in the most effective way. As stated by a psychologist deployed with a small faith-based organization,

“...sometimes with small groups, I don’t know if its ego, I don’t know if it’s ambition, I don’t know if it’s just a strong desire to continue to help, but they keep saying ‘sure, we’ll do it, we’ll do it’ when in fact, they’re really not set up to do it. They don’t stop and go ‘no, we can’t do it’ ...and figure it’s gonna work out. And it doesn’t necessarily work

out. And Haiti's not a good place to try it out." (Participant 20, Psychologist, Faith based organization)

The context of the earthquake made it very difficult for the relief organizations to find space to set up their field-hospitals and resources, especially when the Haitian people were in such need of this space. Participants cited logistics as a huge challenge as they struggled to find cars, houses, and other resources amidst the damage. Furthermore, the resources they did possess were not always dependable. Because much of the work was carried out in field-like hospitals, water and air conditioners were not always functional or available in operating theatres, etc.

The logistical aspect of the response greatly differed depending on the size and experience of the organization. Typically, smaller organizations and NGOs asked their staff to be fairly self-reliant. This was a drastic difference in comparison with the accounts of delegates deployed with larger, more experienced NGOs.

Another aspect of logistics was the need to coordinate one's work schedule with full time employers back in Canada. It is difficult to take off 2-3 weeks of work consecutively under such short notice, particularly for health personnel. This reality led to response teams that were constantly fluctuating in size and number, which frustrated many of the responders, as they were forced to use their vacation and flex time in order to respond. One mental health worker argued,

"My employer would not support me in going. I had to take vacation. You know, if I were doing any other job [volunteering] it would make sense, but I went down there to do the job that I'm doing here, and I could only bring back a wealth of learning that will help our planning here." (Participant 13, Psychologist, Faith based organization)

Others experienced feelings of guilt because they had an obligation and responsibility to their hospitals and employers back in Canada, once again demonstrating the strong link between organizational context and mental and emotional health. As stated by Participant 11,

“The hospital’s not my boss but I have an obligation...if I take a holiday that means the other two [surgeons] are suddenly covering [the hospital] 24/7 with two of them. I wouldn’t put my license in jeopardy and I wouldn’t put my community under that kind of duress. You have to figure all this out in advance...who’s gonna do the work that I normally do? (Participant 11, Surgeon, Large NGO)

On-site team leaders and coordinators were faced with the challenge of going to the airport regularly, sometimes daily, to pick up their volunteers. In order to minimize travel and save both time and resources, some organizations chose to designate one day a week for arrivals and one day a week for departures. Others required that volunteers spend a minimum length of time in Haiti (typically two weeks), in order to reduce the rate of turnover amongst new volunteers. While some organizations devised strategies to reduce the amount of time spent in logistics such as pick-ups and drop-offs, others found these logistics to be a burden on their response effort.

## **4.2 Causal**

The country, organizational and personal contexts, in addition to the available strategies for support, directly influenced whether delegates experienced feelings of uncertainty and confusion, fear, and stress versus whether they were able to remain resilient in the disaster response. Feelings were linked to the need for clear expectations and identification of a responder’s personal “lens” emerged as a critical concept. The first of these categories, unclear expectations (subsection 4.2.1), refers to the expectations regarding the roles, supports, and context that would

be present in Haiti. Secondly, the responders feelings were influenced by their personal “lens” (subsection 4.2.2), which includes personal experiences, general attitudes, and personal initiatives taken by responders in preparation for the response, and ties in very closely with expectations.

### *Unclear Expectations*

The expectations and motivations of the delegates greatly influenced the personal context the professionals brought to the response. Table 6 below outlines each of the interviewed cases and their expectations.

Table 6: *Summary of participant demographics and motivations/expectations*

| <b>Participant</b> | <b>Demographic</b>           | <b>Motivations/Expectations</b>   |
|--------------------|------------------------------|---|
| 1                  | Program Manager, government  | “We didn’t really know what the conditions would be like....it was a lot of unknown”  |
| 2                  | Nurse, Independent volunteer | “I don’t know if I had any [expectations]. I was just planning to sleep on the streets and if I had a band-aid to give someone that needed it, that that’s what I was going to do, just whatever needed to be done” |
| 3                  | Physician, Large NGO         | “[large NGO] do all the logistics, you do no logistics. You just hop on the boat for the ride...you’re not being put up in a 5 star hotel but it’s certainly functional and you don’t worry about the logistics”    |
| 4                  | Nurse, Large NGO             | “I figured that I’d end up utilizing my skills and of course I did, but I wasn’t sent there with the job description that I ended up doing”   |
| 5                  | Physician, Large NGO         | “I was completely unfamiliar with the kind of situation I was asked to go in and I wasn’t sure what my role was going to be....you know, it was really wide open”   |
| 6                  | Anaesthesiologist, Large NGO | “My expectation was that because it was an organization with so much experience, I expected that basic infrastructure like housing, water and sanitation...for the delegates that go there”                         |
| 7                  | Physician, Large NGO         | “l’attente ben ‘est-ce qu’on va avoir une installation qui va nous permettre de bien fonctionner?’, ‘est-ce qu’on va être   |

|    |  |   |
|----|--|---|
|    |  | bien accueilli par la population?’. Donc ça c’est de questions qu’on a à chaque fois. Mais Haïti ça a été tellement vite le déploiement que... Rendu sur place que tu te dis : ‘Bon, qu’est-ce que je fais ici?’”   |
| 8  | Surgeon, Large NGO                                   | “The living conditions would be a bit rough...but over the years I knew that it would be pretty well organized because [organization] are pretty well organized, they’ve got a lot of experience in this kind of work...I knew that there would be work to do, the living arrangement would be a bit rough, but the basics would be there and that’s what I found”.                                     |
| 9  | Anaesthesiologist, Large faith-based organization    | “I’m not sure what I expected honestly...my initial response was ‘this really isn’t as bad as they said because where are all the collapsed buildings, they look like they had before’...[then noticed the damage]...I think I expected more noise, more hustle and bustle”   |
| 10 | Nurse, Large NGO                                     | “my job is really to support the local staff. It’s more educating, mentoring, because if I put my hands on and do it, then who’s gonna do it when I’m gone, so it’s really about capacity building”   |
| 11 | Surgeon, Large NGO                                   | “I guess I didn’t really have any expectations...I presumed just from my knowledge of the news that the acute emergency stuff had been dealt with...there was an ongoing need and my philosophical approach was that if it was sort of sexy, if you will, to go in January-February, it was probably less sexy to go in September...there would still be a need and I didn’t mind going and doing that” |
| 12 | Program Manager, Government                          | “I have to say that my expectations were a bit of a blank slate. I never deployed with an incident response command team before so I knew that in terms of the environment that I was going into that it could be pretty austere and chaotic, I expected you know, long days and reduced comfort”   |
| 13 | Psychologist/social worker, faith based organization | “We were sort of left to fly in the wind really...it’s an art to be able to go into somebody else’s country, first of all, and it’s rewarding work, and so, yeah, I just wanted to go. And [organization name] was willing to have me”  |
| 14 | Program manager, Large NGO                           | “I’ve been to Haiti many, at least six, times..and I knew. So in terms of my expectations, it was pretty [much] what I expected”  |
| 15 | Psychologist/social worker, faith based organization | “Even though I think I expected it [the devastation], it was still a shock...but it was kind of, still the personal growth you can get out of it was pretty phenomenal”   |
| 16 | Physician and  | “Well I was expecting it to be awful...all the basic necessities  |

|    |   |   |
|----|---|---|
|    | Project coordinator, bilateral non-state institution        | would not be as available. I mean water, food, shelter. And then I was anticipating the burden of disease, because there was a lot of dead people, and contamination...which turned out to be right”  |
| 17 | Epidemiologist/<br>Project coordinator, government          | <p>“I have some friends from there [Haiti] and we were all kind of corresponding about it, so I had a bit of an idea about what it would look like....”</p> <p>“It was very vague what our role would be...I didn’t really have expectations, I just thought that we’d get there and get briefed and get sent somewhere to basically do a lot of response”</p>  |
| 18 | Surgeon, Large NGO  | “I was still expecting masses and masses of injured from the earthquake. In terms of the actual work, so I guess I was expecting to be a lot more busy that I actually was. I guess I also thought that the living conditions would be harsher. They were harsh but they weren’t <i>that</i> harsh. The first people on the ground, they were sleeping outside. I came to a very well-established camp”.    |
| 19 | Nurse, Canadian military                                    | “It was the first time for me so I didn’t really have any expectations. I suppose I thought it would be austere conditions with no electricity, no running water, stuff like that...it was exactly like that”.  |
| 20 | Psychologist and Project director, faith based organization | “You gotta have a lot of skills and creativity and willingness to do a lot of different things”   |
| 21 | Physician and Project coordinator, government               | <p>“I knew it would be sort of Spartan living conditions”</p> <p>“Going to a quote unquote ‘dangerous situation’, you know, unstable, you’re not sure what to expect in the aftermath of the earthquake. I think it was a bit of a different situation and I don’t think it was in a sense as straightforward and clear cut, so at the end of the day, there’s just an expediency to how it’s unfolded”</p> |

Many of the participants stated that their roles were not clearly outlined pre-departure. As a result, they had unclear expectations of how and under what conditions they would be working. As stated by one of the participants, “the roles were never clear, because there’s just so much to do.” (Participant 1, Program Manager, Government). Another participant stated,

“There is a need for solid terms of reference that will explain to you what the chain of command is and what the communications plan is in terms of what reports you’re expected to provide, you know, when using what means and what information will be communicated.” (Participant 12, Program Manager, Government)

Unclear roles often led to negative experiences, particularly when delegates felt their expertise were not being put to use. As stated by a volunteer deployed with a faith-based organization,

“Well I would have liked to have been given a role that I could have been more useful [in]. I mean really, are you kidding me? Cleaning bathrooms?...they weren’t organized enough to figure out how to best use me...in any kind of event that happens, if somebody goes to a disaster response, they absolutely have to be clear about what their role is.” (Participant 13, Psychologist, Faith-based organization)

Participants who had fairly well-defined roles pre-deployment found that their expectations better aligned with their actual experiences on-site. This alignment typically led to feelings of effectiveness and accomplishment.

In addition to a clarification of roles pre-deployment, it was important for delegates to be made aware of the types of supports they will be provided with on-site. As seen in the quote below, most delegates did not mind entering a relief response that involved difficult conditions, as long as they were aware of the context in which they were to live and work, and felt supported by the organization that they were deployed with. This is echoed in the following quotation,

“You can’t help anyone if you’re hungry and miserable. You need a level of support that allows you to function. If it’s possible, you know. If you just landed in the middle of an

earthquake disaster, I understand that you have to eat rations and sleep outside...that's a given." (Participant 18, Surgeon, Large NGO)

### ***Lens: Experiences***

The lens is specific to each participant and is attributed to three factors. The first of these are any *past experiences* that the participants have had with emergency response and disasters. The second factor is *attitude*, which describes the delegates' outlooks on emergency response and the role of relief organizations. Finally, the lens includes any *personal initiatives* that the participants' undertook prior to deployment, in order to improve their resiliency on site.

The participants recommended that recruiters take advantage of delegates' previous experiences when creating teams on-site. As stated by Participant 14,

"For the people who had experiences with other NGOs in a humanitarian context...they already knew how it was, but for newcomers in the humanitarian response, I don't think they were well-prepared enough. We should have prepared them more, on the situation and what to expect and also give them more support during their mandate." (Participant 14, Program Manager, Large NGO)

Previous experiences gave delegates a sense of mastery or self-efficacy, and reduced feelings of fear and anxiety. In addition, experience also ensured that the delegates were better prepared and equipped to live in harsh conditions. According to some of the participants,

"I mean I've done a lot of travel and I do a lot of non-disaster response work and sort of these environments and I've actually been to Haiti many times before and since, so you know, it's a bit easier for people that have already travelled in these kinds of

environments, before people who have never travelled in these kinds of environments.”

(Participant 8, Physician, Large NGO)

“I did overseas trips...some of those trips we bring everything you’re gonna need because there’s nothing where you’re going...I had that experience...which was really key in preparing me for that and knowing what supplies to bring and knowing what emergency things to set up...so I felt prepared for the medical work, I didn’t feel prepared for the emotional part of it.” (Participant 9, Anaesthesiologist, Large faith-based organization)

Having experience in relief and disaster work also kept delegates calm and collected when faced with challenging cases. It placed them in a position where they felt comfortable admitting that they did not know how to perform a medical procedure or when to ask for help. As seen in a quote by Participant 10,

“I’ve been a nurse for 46 years, I’m not a novice on this, I know what my skills are and I know enough to say ‘no, this is beyond my scope of practice. This I can’t do but I can assist you while you do it. So I’m very comfortable and confident in my role” (Participant 10, Nurse, Large NGO).

Experience did not necessarily need to be in a disaster context in order for it to be effective. Some of the participants had experience deploying to warzones. To them, Haiti proved to have far less risk and to be a much lesser challenge than these deployments. According to one participant,

“It wasn’t difficult to adjust back to Canadian life, you know, as compared to say, Afghanistan or any other places like that...for us it was kind of a feel-good thing, and nobody was trying to hurt us, and it just...it wasn’t like Afghanistan...they [the Haitians] all wanted us there...I mean we lived in a tent with no water, no electricity...but you get used to that.” (Participant 19, Nurse, Canadian military)

Most participants had an overall positive experience, stating that although there were challenges in the organization and provision of supports, the response was very rewarding and gave them a sense of fulfillment. Those with the best outcomes were often experienced responders who had served in other areas prior to Haiti. Other participants still reported an overall good experience, but cited areas in supports and organization, that, if improved, would have led to a better overall outcome. Some of the most commonly reported challenges, among others, were a lack in the clarity of roles, insufficient psychological and emotional support, and a lack of logistics and coordination.

### ***Lens: Attitudes***

One general attitude that was shared by many of the delegates was a feeling of invincibility. As previously stated, many healthcare professionals are used to being ‘okay’ and being ‘the boss’. As a result, many were reluctant to admit they had become burnt out or were in need of emotional or psychological supports.

“I’ve learned over the years that the self-care component is much greater – there’s a much greater need to emphasize training on self-care for responders themselves. Because we tend to think that as first responders per se, that we’re tougher than that, we’re more resilient, we’re stronger, we have more skills...but when you get to a serious response like

Haiti...it's amazing how those super strong first responders crumble under the stress of the environment.” (Participant 15, Psychologist, Faith-based organization)

“One of the things about working with medical teams is that everybody sees themselves as being quite tough...But what I found is if I touch base before they go, and then they expect my call when they get back, then they don't think they've been pointed out as being crazy or anything.” (Participant 20, Psychologist, Faith based organization)

She goes on to suggest that by working side by side with medical teams as a colleague, rather than a psychologist, delegates will be more open and realize that they are not being given mental health counselling.

The participants' general attitudes varied greatly, although most participants seemed to possess an overall positive attitude regarding the response. Most of the participants were volunteers, and felt a sense of duty to respond and give back by utilizing their skills to assist the Haitian people after the disaster. Many expected rough living conditions on-site and were willing to sacrifice comfort for the response. Others were very surprised when they arrived in Haiti and did not expect the lack of coordination and mismanagement that were present on site. This greatly affected attitudes, and led to a decrease in morale and feelings of fulfillment.

### ***Lens: Personal Initiatives***

Many delegates took it upon themselves to familiarize themselves with the language of the country pre-deployment.

“It was really helpful even just knowing a little bit [of French]...like even just being able to say ‘Hi my name is this, what's your name’ that helps people trust you more than just

going and saying nothing or yelling in another language.” (Participant 3, Physician, Large NGO)

Another example of personal initiatives is demonstrated in a quote highlighting one participant’s initiative to remain physically active while in Haiti, in order to maintain both her health and spirits. The importance and value of physical exercise is well known, but often forgotten when the context is so difficult. Participant 14 states,

“I’m a very active person...so something like [Haiti] is hard in a deployment like that when there are security concerns, so we were not allowed to go for a walk and we were always in a car from one place to another...what I did to kind of manage my stress was to do skipping rope, because it doesn’t take a lot of place, you can do it anywhere.”  
(Participant 14, Program Manager, Large NGO)

Some volunteers responding with a large organization had already underwent a series of training, in relief response, both live and online, while training courses were uncommon to other, smaller organizations. Few participants took it upon themselves to review medical literature and common procedures common to Haiti pre-deployment, although they cited this effort as a recommendation upon their return. Some underwent medical checkups and received vaccinations, although it was not always mandated by their organization. Some of those deploying with smaller organizations brought with them their own food, shelter, and basic amenities, as well as booked their own plane tickets. Finally, some delegates who were not already fluent in French familiarized themselves with either the French or Creole language pre-deployment.

### 4.3 Strategies

The strategies refer to the various supports that were provided to the responders in Haiti. These were classified into two major categories 1) Instrumental Supports and 2) Communication & Leadership Supports. The first of these categories, Instrumental supports, refers to the training; safety & security; psychological & emotional supports as well as physical supports. The second category, Communication & Leadership Supports, refer to team dynamics and effective team leaders; communication between the field and headquarters; and communication with the media.

#### *Instrumental Support Strategies: Training Supports*

According to one delegate from a large NGO, the pre-deployment period for Haiti was very short. Some organizations chose to waive their typical two-week training period, due to the extent of the damage and the extreme need for immediate help. Many delegates were sent to Haiti rather quickly, sometimes making the decision to leave within 24 hours. As a result, their training and briefing, particularly within the first few days, was not extensive.

The interviews indicated that medical training would have been an effective pre-departure strategy. As stated by one general practitioner,

“When I went over [to Haiti], I hadn’t read an X-ray in years. I don’t read X-rays. I had to figure out what I was going to do. They brought me in and said ‘Oh! We just got the ink for the X-ray machine!’ and I’m thinking “Oh great’...if I could have gone and gotten the principles of X-rays and casting, which are two things that you know I don’t do a lot of, that would have been really great.” (Participant 3, Physician, Large NGO)

Another physician echoed this request, stating

“Things like amputations and tractions, skeletal tractions and external fixation, there’s certain sets of skills that I think you need to be prepared to do and that applies for pretty much every role, and [if] everybody’s going to play, there’s going to be an expanded scope of practice.” (Participant 8, Physician, Large NGO)

Another type of training that was used heavily by larger NGOs was emergency response unit (ERU) training. This training provides responders with hands-on skills that will allow them to build and effectively run field-hospitals in a disaster zone. In addition to ERU training, training on the incident command structure was essential in some organizations. As stated by one participant,

“So part of the training for volunteers - back to the whole training issue – is learning about the incident command structure. Because as a volunteer, they need to understand that they’re one player in a very, very complex response. They are not the response. They are just part of it – they’re a very minor, in regards to the big picture they’re, just one little player basically.” (Participant 20, Psychologist, Faith based organization)

Training supports were present both formally and informally. Some organizations spent a few days formally training their delegates on site, while others depended on team dynamics and team leaders to ensure delegates felt confident in their abilities to respond in Haiti.

### ***Instrumental Supports: Safety and Security Supports***

Larger organizations and NGOs, particularly those with previous experience in the disaster response, were much more regulated in their safety protocol. According to one participant,

“You make zero decisions about that [safety], you’re just told what to do by [organization name] and they’re quite rigid about that, as opposed to many other organizations where people are independent. But that’s not the case with [organization name]. You’re gonna do it [organization name] way or you’re gonna leave. (Participant 8, Physician, Large NGO)

“Other organizations like [organization name] had so many restrictions on their workers, for safety, and I really understand that, and I think that’s good, but I think there has to be a balance, because otherwise you can’t do your job when you go down there.” (Participant 17, Epidemiologist, Government)

One of the most essential tools for maintaining safety was the provision of communication devices, to ensure the location and safety of the delegate was not compromised. According to one participant from an NGO,

“We had a radio, and also a satellite phone and cell phone, and we had the equipment there, in the office where we were staying at; we had a driver, twenty-four hours a day” So if we had to leave really rapidly, we had someone, and it was also kind of security, we had a security officer at the office and also security guards in the office.” (Participant 14, Program manager, Large NGO)

Other security supports included specific transportation. For the organizations that had the capacity, responders were driven to and from the camps in specialized vehicles, and were expected to follow specific protocols and curfews. It was crucial that logistics and timing were accurate in order to avoid accidents and safety threats.

“If I got in the wrong vehicle, somebody might take me somewhere and nobody would know what to do with me and I wouldn’t know where I was...the expectation was that [upon arrival] I would get the security briefing and get some health briefing, [and briefing] on current issues, that kind of thing.” (Participant 5, Physician, Large NGO)

The other type of safety that was considered in Haiti was health safety. Organizations needed to ensure that they were able to remove their delegates from the country if there was a need to do so. As Participant 8 recalls,

“We had an outbreak of severe GI disorder in the camp when we were there...one guy had to get evacuated medically at the time when he was there and he had a health problem and required evacuation, but [organization name] are very organized. I mean you even get a separate life insurance policy and insurance coverage is organized by [organization name] when you deploy with them as part of the contract when you volunteer.” (Participant 8, Physician, Large NGO)

One strategy that some organizations used to ensure that their delegates remained healthy during the time of the deployment was to ensure they required immunizations pre-deployment. According to a participant who deployed with a large NGO,

“There’s lots of medical stuff, you have to get more immunizations, you could probably go to the moon with the immunizations I had. They provide you with, there’s a nurse that meets with you, they talk a lot about mental health support...I certainly didn’t feel abandoned in any way, shape or form.” (Participant 3, Physician, Large NGO)

***Instrumental Supports: Psychological & Emotional Supports***

There were many strategies available to address emotional and psychological needs on-site. These varied and depended largely on the individual's organization, team leader and colleagues. One of the strategies was the use of chaplains who lived and worked with the delegates. These chaplains were available to address any issues of stress or trauma experienced by the delegates, and often provided their services in an ad-hoc manner. The data also allowed for the unique exploration of the roles of mental health service providers who were in Haiti. While some were there to support the Haitian people, others were there to support fellow Canadian staff, or took on that role informally. As stated by one of the participants, "As a mental health person, the office does not close. You're not off hours, really, ever." (Participant 20, Psychologist, Faith based organization)

Other organizations chose to apply a more formal approach, and appointed social workers that pushed health personnel to take regular breaks. As one mental health responder recalls,

"I set really strong boundaries with the physicians in just going to them and saying, 'you're taking a break now', when you see stress levels going high, and they worked really well with that, and that was key. So with the flexibility and self-awareness, the doctors, we had that trust relationship with them too." (Participant 15, Psychologist, Faith based organization)

Other organizations chose to employ on-the-spot critical incident clinical debriefings or morale and welfare officers when delegates had a difficult time with the context or with patients. Program managers found that many responders simply did not ask for emotional and psychological supports. Therefore, psychological and emotional supports were often overlooked

for participants from smaller organizations, who did not have the experience and capacity to know to provide these supports automatically to their volunteers.

Other informal psychological and emotional health supports included regular communication with family and loved ones back home. As stated by Participant 18,

“There were communication lines that were clearly identified if I needed anything but I didn’t feel like I needed more than just to talk to my loved ones and some of my closer colleagues. Talk about it and yeah.” (Participant 18, Surgeon, Large NGO)

The same experienced was described by a delegate from a slightly larger NGO,

“For them [delegates] to be able to call their families, you know, this is where I am, I’m okay, or just to hear their kids, was really important, so whoever you go with needs to be able to set up some kind of email or voiceover or satellite phone communication with home and make it available to their workers and their volunteers...if you go with a group that doesn’t have the infrastructure resources to set that up, it can be really tough.” (Participant 9, Anaesthesiologist, Large faith-based organization)

Delegates who were not provided with some form of emotional support, either formal or informal, cited this as a gap in their interview. As seen in a participant quote,

“I mean it would have been nice if they [organization] had a referral, because I found it very difficult to find some kind of social worker or someone who is familiar with our kind of work because it is quite unique.” (Participant 1, Program Manager, Government)

The context of Haiti was very difficult, and many larger NGOs chose to utilize shorter deployment times, in order to protect their responders.

“Some decisions one is making are very drastic decisions and they really impact you emotionally, seeing people being cut off and kids crying and those things are very hard to take...one should not be exposed for too long a period of time...I spent two weeks there, I barely slept two-three hours a night and therefore that builds up, and you keep reflecting on the troubles you see of the day and you can’t sleep at night really.” (Participant 16, Anaesthesiologist, Bilateral non-state institution)

Relief coordinators began to notice this trend, and attempted to adjust their deployment periods accordingly. As stated by Participant 9,

“...our psychological and emotional wellness, [is] really hard to support, so a shorter deployment is definitely easier and you might think that it’s gonna benefit your project to have continuity...but if your staff are all dysfunctional, I’m not sure really how effective they’ll be...they went home feeling bruised and beaten and rather dysfunctional, rather disillusioned, which is kind of sad.” (Participant 9, Anaesthesiologist, Large faith-based organization)

When shorter deployment periods were not feasible, some alternative strategies that organizations chose to employ to combat burnout were rest and relaxation breaks (R&R).

“I see a maximum of two weeks that would be significant for someone going to a disaster and there must be a break, after two weeks, get removed from that. Otherwise, one with

have all the post-traumatic syndrome things...the mind cannot take that much”.

(Participant 16, Anaesthesiologist, Bilateral non-governmental institution)

Some, typically larger, organizations provided delegates with the resources to take a break in the Dominican Republic or to return to Canada for a short period of time. Most organizations had these breaks at the beginning of every month or every six weeks for those who deployed for slightly longer periods of time.

Finally, the need for debriefing was repeatedly highlighted in the data. As stated by Participant 5,

“Debriefing almost immediately after returning would be useful, even on the day of arrival, just to have somebody call and say you know, here’s the plan, do you have any immediate concerns...and I’ll call you in a couple of weeks.” (Participant 5, Physician, Large NGO)

The same type of post-deployment advice was given by a psychologist who states

“I try to get people within the first week that they return. The sooner the better...and as time passes, there’s more and more reluctance to chat about it. And that’s not necessarily a bad thing...you’ve got to be able to put it away to move forward and keep going.”

(Participant 20, Psychologist, Faith based organization)

### ***Instrumental Supports: Physical Supports***

The difficulty with providing physical resources to delegates is that there is already “competition” for resources in-country, therefore self-sufficiency of organizations was key.

“Either the victims of the earthquake get what’s left or all of the thousands of people responding get it...ethically, I think you need to come into a situation like that fully

support[ed], like self-contained, without relying on the few resources that they have because you're in competition for it." (Participant 9, Anaesthesiologist, Large faith-based organization)

Larger organizations with greater experience in the disaster response were well prepared when it came to providing their delegates with the appropriate physical resources, such as food, water, and shelter. The differences in capacity of each organization are unmistakable, as seen in the difference between the following quotes,

"I didn't personally feel any major gaps in the services that were provided to me while I was there. You know, the food was great, we had clean water because they drew their own water supply, the latrines were well organized, we had showers, it was pretty decent for what it was." (Participant 8, Physician, Large NGO)

"All of us slept in a big room inside the hospital, which was actually kind of scary...water, you had to bring your own water supplies...we were responsible for bringing our own food...we were to bring our own tents to sleep in, which we did...they didn't have a safety officer...it was just kind of put together...if someone was there with [organization name] or one of the bigger organizations, they would not have to worry like this." (Participant 20, Psychologist, Faith-based organization)

### ***Communication & Leadership Supports: Team Dynamics and Effective Team Leaders***

The importance of team dynamics is depicted in the following participant quotations,

“You go with this team and they become as close as your family when you’re there...they’re all you have and it’s amazing the relationships that develop that you know, are like family.” (Participant 10, Nurse, Large NGO)

“I think the relationships we develop as a team also are very helpful, because we end up knowing each other relatively well for the four, five days we’re there and then you start to really grow to like each other, and then you can share.” (Participant 16, Anaesthesiologist, Bilateral non-state institution)

The context of Haiti made the need for these teams even greater. As seen in a participant quote,

“Every day I had a code...and we didn’t resuscitate any of them, none of them made it, and that’s every day...I don’t think that we knew exactly what happens to you in an earthquake when you’re crushed....unexplained, unexpected things would happen...and that’s very hard, that’s very personal and that’s hard to take, so I think that the cohesiveness of our team was really important because we all lived it together.” (Participant 9, Anaesthesiologist, Large faith-based organization)

One of the team strategies was to implement the ‘buddy system’. As stated by one nurse, “make sure the novice, the rookies, have got a mentor.” (Participant 10, Nurse, Large NGO) Some organizations chose to apply this technique pre-departure so that the support could carry out on-site and post-deployment. Organizations that were able to introduce delegates to each other pre-departure, found this to be an asset on-site. As Participant 10 continued,

“[In training] we had just spent eight gruelling days in the freezing cold in a field, putting up tents and you know, sleeping in them and so we’d already developed a relationship

with a lot of the people...so we already knew each other and that made it really comfortable, when you knew who your group was before you even left.” (Participant 10, Nurse, Large NGO)

In addition to some of these more formalized strategies of pre-departure introductions and buddy systems, there were ‘unwritten’ rules that were present on-site. These included being inclusive of new volunteers, and ensuring that everybody was aware of the context and had the necessary informal supports from their team members to remain resilient throughout the disaster.

“There were written and unwritten rules. The written rule said that when a new person comes, the first thing you do is you sit down and brief them...show them how life works...but one of the unwritten rules is...don’t let them eat alone...don’t let somebody kind of wallow in their own misery or don’t let them be lonely, don’t let them be homesick, encourage people to interact and so on.” (Participant 4, Nurse, Large NGO)

Another strategy used to ensure teams were effective was to deploy groups of people whose skills could complement one another. One of the participants was a surgeon who was deployed to Haiti without an anaesthetist. As a result, he was unable to perform his role, which, for him, was very frustrating. As he states,

“If you’re going to recruit people, if you’re going to send a surgeon somewhere, you need to send an anaesthetist; you know, hand and gloves....if you’re going to have a surgeon, you need to have an anaesthetist. Period.” (Participant 11, Surgeon, Large NGO)

The second crucial element of response teams was the presence of a strong, effective leader with good communication skills. In addition to providing encouragement and organization for the

delegates, the team leader had a greater role. In addition to being an advisor, the team leader was responsible for ensuring that all of the delegates were aware of their surroundings and were prepared to deal with emergency situations. As stated by Participant 4,

“He [team leader] got everybody together, he made sure everybody understood what the emergency procedures were, what we needed to do in the event we had to all evacuate.”

(Participant 4, Nurse, Large NGO)

Except for the rare case, most of the participants that spoke very positively about their teams in Haiti and were thankful for their colleagues. According to Participant 9,

“It was an excellent team, it was really an interesting experience to work with a team in a situation like that because everyone is there for the same reasons, so usually your cohesiveness is amazing, as opposed to just going to work everyday where people like to be there, don’t like to be there...everyone is there [in Haiti] 100%” (Participant 9, Anaesthesiologist, Large faith-based organization)

### ***Communication & Leadership Supports: Communication between the Field and Canadian Headquarters***

One of the strategies for effective communication required the briefing of delegates by having them communicate directly with someone in their position on-site.

“Some administrator in Ottawa can tell me what they think I’m doing, a physician on the ground can tell me exactly what I’m doing. And there’s always a huge difference between what the head office thinks you’re doing and what the people on the ground know you’re doing.” (Participant 3, Physician, Large NGO)

“The thing I appreciated the most was being able to talk to the physician that was there, being able to send out an email and find out, then that just helped me to know what environment I was gonna be working in...medical issues that I was gonna get, that was extremely helpful.” (Participant 3, Physician, Large NGO)

### ***Communication & Leadership Supports: Communication with media***

Accurate media coverage is very important to the relief response. As stated by Participant 21,

“It was a bit disappointing afterwards...after being back, you see some of the politics, the bureaucracy...and people even remark in the media, they are taking pictures in Haiti one year after the disaster looking at, you know, at least physically, many things really haven’t progressed, right?... much progress has been made, and the hardest part is sustaining the momentum and the continued efforts to rebuild the country.” (Participant 21, Program Manager, Government)

“When the media is involved in this, the media is looking for the excitement of it. But there’s more to it than being excited about it. It’s a matter of restoration as well. And this part is neglected, because it’s not flashy. It’s not, quote-unquote ‘newsworthy’, while in fact, it is.” (Participant 16, Anaesthesiologist, Bilateral faith-based institution)

### ***Overall Findings and Participant Recommendations***

Table 7 is a summary of all of the supports that the participants mentioned they had received. An X was placed next to any support at least one participant cited in their interview. This mark was bolded when a participant found the support to be particularly effective or sufficient. In terms of instrumental support strategies, the data shows that participants could have potentially cited that they had been provided with 3 training supports, 3 safety and security supports, 4 psychological

and emotional supports, and 2 physical supports. In addition, the participants could have been provided with communication and leadership supports including 3 supports related to team dynamics, 1 for communication with headquarters and 1 effective communication with the media. A tally of each provided support was calculated, in order to determine which supports were most frequently received by the delegates.

According to the data, 67% of participants were given training supports (52% pre-departure training; 52% pre-departure/early briefing; 5% medical training). Safety and security supports were provided to 86% of the delegates (81% physical safety; 76% safety rules & protocols; 52% security guards) and some form of psychological and emotional support was provided to 100% of the participants. These were divided as 81% being provided debriefings and/or follow ups; 81% formal psychological supports; 43% short deployment periods/R&R and 29% informal psychological supports. Physical supports were provided to 81% of the participants (76% provision of food, shelter, water, etc.; 29% logistics). 76% of participants reported having been given team supports and effective team leaders (67% strong team cohesion/informal support from team members; 33% clarity of roles/daily debriefs; 29% effective team leaders). Finally, 57% of participants were given effective communication portals between the field and headquarters and 24% reported effective communication with media and accurate media coverage.

Table 8 below is a summary of all of the supports the participants cited either as lacking or ineffective. Below is an aggregate of the frequency counts for each individual category of support. These were determined by calculating the number of participants that recommended improvement in at least one aspect of the support. Frequency scores for each individual type of support were also calculated and included in Table 8.

The need for improved training supports was the biggest identified gap, with 71% of the participants citing a need for improvement within this support (15/21 participants). 62% of participants (13/21) also found a great need for improved psychological & emotional supports and 57% (12/21) found a need for improved teams and team leaders. This gap was followed by physical supports, with 48% (10/21) of participants citing a need for improvement in this area. Finally, 19% (4/21) of participants stated a need for improved communication with the media and accurate media coverage; 14% (3/21) cited a need for improved safety and security; and 10% (2/21) of participants saw a gap in effective communication between the field and headquarters.

Table 7: A summary of the supports received by the participants

| Participant | Organization Type               | Support          |                        |                              |                          |                 |                 |                        |                          |                               |                               |   |                              |                       |  |                                  |  |   |
|-------------|---------------------------------|------------------|------------------------|------------------------------|--------------------------|-----------------|-----------------|------------------------|--------------------------|-------------------------------|-------------------------------|---|------------------------------|-----------------------|--|----------------------------------|--|---|
|             |                                 | Medical training | Pre-departure training | Pre-departure/early briefing | Safety rules & protocols | Physical safety | Security guards | Formal psych. Supports | Informal psych. Supports | Short deployment periods/ R&R | Debriefings and/or follow-ups | Provision of food, shelter, water, etc. | Logistics (visas, passports) | Effective team leader | Strong team cohesion; Informal support from team members | Clarity of roles; daily debriefs | Communication portals between field and headquarters | Communication with media/ accurate media coverage |
| 1           | Government                      |                  |                        |                              |                          |                 | X               | X                      |                          | X                             | X                             | X                                       | X                            |                       | X  |                                  | X  | X   |
| 2           | Independent                     |                  |                        |                              |                          |                 |                 |                        | X                        | X                             |                               |   |                              |                       |  | X                                |  | X   |
| 3           | Large NGO                       |                  | X                      |                              | X                        | X               |                 | X                      |                          | X                             | X                             | X                                       | X                            | X                     | X  | X                                | X  |   |
| 4           | Large NGO                       |                  | X                      | X                            | X                        | X               |                 | X                      |                          |                               | X                             | X                                       |                              |                       | X  |                                  | X  |   |
| 5           | Large NGO                       |                  | X                      | X                            | X                        | X               |                 | X                      | X                        |                               | X                             | X                                       |                              | X                     | X  |                                  | X  |   |
| 6           | Large NGO                       |                  | X                      |                              | X                        | X               |                 | X                      |                          |                               | X                             | X                                       |                              |                       |  |                                  |  |   |
| 7           | Large NGO                       |                  |                        | X                            | X                        | X               |                 | X                      |                          |                               | X                             | X                                       | X                            |                       | X  | X                                |  |   |
| 8           | Large NGO                       |                  | X                      | X                            | X                        | X               | X               | X                      |                          |                               | X                             | X                                       | X                            |                       | X  |                                  | X  | X   |
| 9           | Large faith-based               |                  |                        | X                            |                          | X               | X               | X                      |                          | X                             | X                             | X                                       |                              |                       | X  |                                  |  | X   |
| 10          | Large NGO                       | X                | X                      | X                            | X                        | X               | X               | X                      |                          |                               | X                             | X                                       |                              | X                     | X  | X                                |  |   |
| 11          | Large NGO                       |                  | X                      | X                            | X                        | X               |                 | X                      |                          |                               | X                             | X                                       |                              | X                     |  |                                  | X  |   |
| 12          | Government                      |                  |                        | X                            | X                        | X               | X               | X                      |                          | X                             | X                             | X                                       |                              |                       |  |                                  | X  |   |
| 13          | Faith-based                     |                  |                        |                              |                          |                 |                 |                        |                          | X                             |                               |   |                              |                       | X  |                                  |  |   |
| 14          | Large NGO                       |                  |                        |                              | X                        | X               | X               | X                      |                          | X                             | X                             | X                                       |                              |                       |  |                                  | X  |   |
| 15          | Faith-based                     |                  |                        |                              | X                        | X               | X               | X                      |                          | X                             |                               |   |                              |                       | X  | X                                |  |   |
| 16          | Bilateral non-state institution |                  |                        |                              | X                        | X               |                 |                        | X                        |                               |                               | X                                       |                              | X                     | X  |                                  | X  |   |
| 17          | Government                      |                  |                        |                              | X                        | X               | X               | X                      | X                        |                               | X                             |   | X                            |                       |  |                                  | X  |   |
| 18          | Large NGO                       |                  | X                      | X                            | X                        | X               | X               | X                      | X                        |                               | X                             | X                                       |                              |                       | X  | X                                |  |   |
| 19          | Military                        |                  | X                      | X                            | X                        | X               | X               | X                      |                          |                               | X                             | X                                       |                              | X                     | X  | X                                | X  |   |
| 20          | Faith-based                     |                  | X                      | X                            |                          |                 |                 | X                      | X                        |                               | X                             |   |                              |                       | X  |                                  |  |   |
| 21          | Government                      |                  | X                      |                              | X                        | X               | X               |                        |                          | X                             | X                             | X                                       | X                            |                       |  |                                  | X  | X   |
|             | Overall score (%)               | 5                | 52                     | 52                           | 76                       | 81              | 52              | 81                     | 29                       | 43                            | 81                            | 76                                      | 29                           | 29                    | 67   | 33                               | 57   | 24  |

X: support received by participant

X: support deemed effective/useful by participant

X: not mentioned by participant in interview, but is mandated/available by affiliated organization

| Type of Support                                  |
|--|
| Training   |
| Safety and Security                              |
| Psychological/Emotional Supports                 |
| Physical Supports                                |
| Teams and Team Leaders                           |
| Communication between the field and headquarters |
| Accurate media coverage                          |

Table 8: Participant recommendations on implementation/improvement of supports

| Participant        | Organization Type               | Support          |                        |                              |                          |                 |                 |                        |                          |                               |                               |   |                              |                       |  |                                  |  |   |
|--------------------|---------------------------------|------------------|------------------------|------------------------------|--------------------------|-----------------|-----------------|------------------------|--------------------------|-------------------------------|-------------------------------|---|------------------------------|-----------------------|--|----------------------------------|--|---|
|                    |                                 | Medical training | Pre-departure training | Pre-departure/early briefing | Safety rules & protocols | Physical safety | Security guards | Formal psych. Supports | Informal psych. Supports | Short deployment periods/ R&R | Debriefings and/or follow-ups | Provision of food, shelter, water, etc. | Logistics (visas, passports) | Effective team leader | Strong team cohesion; Informal support from team members | Clarity of roles; daily debriefs | Communication portals between field and headquarters | Communication with media; accurate media coverage |
| 1                  | Government                      |                  |                        | R                            |                          |                 |                 |                        |                          |                               | R                             |   |                              |                       |  | R                                |  |   |
| 2                  | Independent                     |                  |                        | R                            |                          |                 |                 |                        |                          |                               |                               |   |                              |                       | R  |                                  |  | R   |
| 3                  | Large NGO                       | R                | R                      |                              |                          |                 |                 |                        |                          |                               | R                             |   |                              |                       |  |                                  | R  |   |
| 4                  | Large NGO                       |                  |                        |                              |                          | R               | R               |                        |                          |                               | R                             |   |                              |                       | R  |                                  |  |   |
| 5                  | Large NGO                       |                  | R                      | R                            |                          |                 |                 |                        |                          |                               | R                             |   |                              | R                     | R  | R                                |  |   |
| 6                  | Large NGO                       |                  |                        |                              |                          |                 |                 |                        |                          |                               |                               | R                                       | R                            | R                     |  |                                  | R  |   |
| 7                  | Large NGO                       |                  | R                      |                              |                          |                 |                 |                        |                          |                               | R                             |   |                              |                       |  |                                  |  |   |
| 8                  | Large NGO                       | R                | R                      |                              |                          |                 |                 |                        |                          |                               |                               |   | R                            |                       |  |                                  |  | R   |
| 9                  | Large faith-based               |                  |                        |                              |                          |                 |                 | R                      | R                        | R                             |                               |   |                              | R                     |  |                                  |  | R   |
| 10                 | Large NGO                       | R                | R                      |                              |                          |                 |                 |                        |                          |                               |                               |   |                              |                       | R  |                                  |  |   |
| 11                 | Large NGO                       |                  |                        |                              |                          |                 |                 |                        |                          |                               |                               |   | R                            |                       | R  |                                  |  |   |
| 12                 | Government                      |                  |                        | R                            |                          |                 |                 | R                      |                          |                               | R                             |   | R                            |                       |  |                                  |  |   |
| 13                 | Faith-based                     |                  |                        |                              | R                        | R               | R               |                        |                          |                               |                               |   |                              | R                     | R  | R                                |  |   |
| 14                 | Large NGO                       |                  | R                      |                              |                          |                 |                 |                        |                          | R                             | R                             |   |                              |                       |  | R                                |  |   |
| 15                 | Faith-based                     |                  | R                      |                              |                          |                 |                 | R                      |                          |                               | R                             |   |                              |                       | R  |                                  |  |   |
| 16                 | Bilateral non-state institution |                  |                        | R                            |                          |                 |                 |                        |                          |                               | R                             |   | R                            |                       |  |                                  |  |   |
| 17                 | Government                      |                  | R                      | R                            |                          |                 |                 |                        |                          |                               |                               |   | R                            |                       |  |                                  |  |   |
| 18                 | Large NGO                       |                  |                        |                              |                          |                 |                 |                        |                          |                               | R                             |   | R                            |                       |  |                                  |  |   |
| 19                 | Military                        |                  | R                      | R                            |                          |                 |                 |                        |                          |                               | R                             |   | R                            |                       |  |                                  |  |   |
| 20                 | Faith-based                     |                  | R                      |                              | R                        | R               | R               | R                      |                          |                               | R                             |   | R                            |                       | R  |                                  |  |   |
| 21                 | Government                      |                  |                        | R                            |                          |                 |                 |                        |                          |                               |                               |   | R                            |                       |  |                                  |  | R   |
| Overall scores (%) |                                 | 14               | 48                     | 38                           | 10                       | 14              | 14              | 19                     | 5                        | 10                            | 57                            | 5                                       | 48                           | 19                    | 38   | 19                               | 10   | 19  |

R: participant recommended improving/implementing support

| Type of Support                                  |
|--|
| Training   |
| Safety and Security                              |
| Psychological/Emotional Supports                 |
| Physical Supports                                |
| Teams and Team Leaders                           |
| Communication between the field and headquarters |
| Accurate media coverage                          |

Based on the findings in Table 7 and 8 above, the overall scores of the available supports were determined. Moreover, the data allowed for an identification of gaps within the strategies of supports available to relief responders. The consequences of these findings are outlined in the following section.

#### **4.4 Consequences**

According to Strauss and Corbin (1990), consequences are used to determine the effects of the central phenomenon. In this study, the effects of the *need for supports* led to both positive and negative consequences. The *Consequences* outline the impacts of the various strategies, as perceived by the participants. Positive perceptions arose when an organizational strategy, either through instrumental supports (training supports, safety and security supports, psychological and emotional supports, or physical supports) or communication and leadership supports (team dynamics, importance of communication between the field and headquarters, or the importance of accurate media coverage) were tailored to an individual responder. Consequences arose from interactions between organizational strategies, participant expectations and personal lenses. Table 9, below, is used to identify the consequences of each strategy, as well as the interaction between the *Causes* and *Strategies*. These consequences were identified based on participant perceptions and feelings.

Table 9: Consequences of Provided Supports

| <b>Support</b>   | <b>Positive consequences</b>   | <b>Negative consequences if poorly implemented/not implemented</b>  | <b>Interacts with:</b>  |
|--|--|---|---|
| Medical training   | <ul style="list-style-type: none"> <li>Confidence in role/task</li> </ul>                        | <ul style="list-style-type: none"> <li>Unprepared</li> <li>Panic/anxiety/uneasiness</li> </ul>  | L: Experience;<br>Personal initiatives  |
| Pre-departure training   | <ul style="list-style-type: none"> <li>Clarity of role</li> <li>Confidence</li> </ul>            | <ul style="list-style-type: none"> <li>Overwhelmed</li> </ul>   | L: Expectations;<br>Experiences   |
| Pre-departure briefing   | <ul style="list-style-type: none"> <li>Preparedness</li> <li>Confidence</li> </ul>               | <ul style="list-style-type: none"> <li>Confusion</li> </ul>   | L: Expectations;<br>Experiences   |
| Safety rules and protocols (curfews, safe zones, etc.)         | <ul style="list-style-type: none"> <li>Security</li> <li>Comfort</li> <li>Relief</li> </ul>      | <ul style="list-style-type: none"> <li>Restricted/Stifled</li> <li>May feel panicked</li> </ul>   | CS: Media<br>L: Attitudes   |
| Physical safety (radios, transportation)                       | <ul style="list-style-type: none"> <li>Security</li> <li>Comfort</li> <li>Relief</li> </ul>      | <ul style="list-style-type: none"> <li>Frustrated</li> <li>Restricted/Stifled</li> </ul>  | L: Experience   |
| Security guards  | <ul style="list-style-type: none"> <li>Security</li> <li>Comfort</li> </ul>                      | <ul style="list-style-type: none"> <li>Fear</li> </ul>  | L: Experience   |
| Formal psychological supports (eg: chaplains, social workers)  | <ul style="list-style-type: none"> <li>Trust</li> <li>Relief/Support</li> <li>Comfort</li> </ul> | <ul style="list-style-type: none"> <li>Stress</li> <li>PTSD</li> <li>Unsupported</li> <li>Formal supports can cause feelings of stigmatization</li> </ul> | IS: Training<br>L: Expectations;<br>Experiences;<br>Attitudes<br>CS: Team dynamics          |
| Use of informal psychological support (eg: family and friends) | <ul style="list-style-type: none"> <li>Comfort</li> </ul>  | <ul style="list-style-type: none"> <li>Stress</li> <li>PTSD</li> <li>Unsupported</li> <li>Formal supports can cause feelings of stigmatization</li> </ul> | IS: Physical supports<br>L: Expectations;<br>Experiences;<br>Attitudes<br>CS: Team dynamics |
| Shorter deployment   | <ul style="list-style-type: none"> <li>Rest/Relief</li> </ul>                                    | <ul style="list-style-type: none"> <li>Ineffective</li> </ul>   | IS: Physical supports   |

|   |  |  |  |
|---|--|--|--|
| periods/ Rest & Relaxation                                  | <ul style="list-style-type: none"> <li>• Relaxation</li> <li>• Avoids: burnout, stress (mental, physical emotional), fatigue</li> </ul>    | <ul style="list-style-type: none"> <li>• Unfulfilled</li> <li>• Abandonment of Haitian people</li> </ul>   | L: Experience; Attitudes   |
| Debriefing and/or follow-ups                                | <ul style="list-style-type: none"> <li>• Closure</li> <li>• Fulfillment</li> </ul>   | <ul style="list-style-type: none"> <li>• Frustrated, Stressed</li> <li>• PTSD</li> </ul>   | IS: Training<br>L: Expectations, Experience, Attitudes<br>CS: Team dynamics  |
| Provision of food, shelter, water, etc. by the organization | <ul style="list-style-type: none"> <li>• Less worry/stress for delegate</li> <li>• Increased focus on role</li> </ul>                      | <ul style="list-style-type: none"> <li>• Stressed</li> <li>• Fatigued</li> <li>• Worried</li> <li>• Feelings of guilt</li> <li>• Distracted</li> </ul> | IS: Training; Psychological and Emotional Supports<br>L: Expectations, Experience, Attitudes, Personal initiatives |
| Logistics such as protection of visas, passports, etc.      | <ul style="list-style-type: none"> <li>• Peace of mind for delegate</li> </ul>   | <ul style="list-style-type: none"> <li>• Worried</li> </ul>  | IS: Training; Safety supports<br>L: Experiences; Expectations  |
| Effective team leader                                       | <ul style="list-style-type: none"> <li>• Fulfillment</li> <li>• Cohesiveness</li> <li>• Trust</li> <li>• Effectiveness</li> </ul>          | <ul style="list-style-type: none"> <li>• Disorganization</li> <li>• Frustration</li> <li>• Ineffectiveness</li> </ul>                                  | IS: Training<br>L: Experiences; Attitudes  |
| Strong team cohesion; Informal support from team members    | <ul style="list-style-type: none"> <li>• Trust</li> <li>• Comfort</li> </ul>   | <ul style="list-style-type: none"> <li>• Ineffectiveness due to unclear roles</li> <li>• Isolation</li> <li>• Confusion</li> </ul>                     | IS: Training<br>L: Attitudes<br>CS: Team Dynamics  |
| Clarity of roles  | <ul style="list-style-type: none"> <li>• Effectiveness</li> <li>• Efficiency</li> <li>• Feelings of fulfillment post-deployment</li> </ul> | <ul style="list-style-type: none"> <li>• Disorganization</li> <li>• Frustration</li> </ul>   | IS: Training<br>L: Expectations, Attitudes<br>CS: Team Dynamics  |

|  |  |   |  |
|--|--|---|--|
| Communication portals between field and headquarters | <ul style="list-style-type: none"> <li>• Preparedness due to clear expectations</li> <li>• Confidence</li> </ul> | <ul style="list-style-type: none"> <li>• New delegates come in with feelings of frustration, lack of preparedness</li> </ul>  | <p>L: Expectations, Experiences</p> <p>CS: Team dynamics</p> |
| Accurate communication between site and media        | <ul style="list-style-type: none"> <li>• Awareness</li> <li>• Initiative</li> </ul>                              | <ul style="list-style-type: none"> <li>• Frustrating for delegates who respond and feel underappreciated, misrepresented</li> <li>• Skewed public expectations</li> </ul> | <p>L: Expectations, Experience</p>                           |

L: Lens

IS: Instrumental Supports

CS: Communication Supports

### *Consequences of Instrumental Support Strategies*

The need for practical, medical training was found to be important in both the earthquake and cholera phases of the disaster response. As stated by the participants,

“I would love [for the organization] to design a one day course for physicians who haven’t been on the front lines to get a brush up on fixing arms, basic suturing, reading X-rays, that we could create a course where people who felt that they might be rusty in those basic, primary care things...that will help a lot of people.” (Participant 3, Physician, Large NGO)

“we could...have sort of preparatory courses again, offline, when nothing is going on, so you’re ready to go before something happens...an expanded scope of skills they would need to have in their professional domain....for me for example as a surgeon, to expand my skill set to obstetric skills.” (Participant 8, Physician, Large NGO)

These supports were found to be effective and made participants more confident in their role. This is best demonstrated in a quote seen by Participant 10, a nurse working in a cholera hospital who describes the process of “tenting”, a simple, practical exam to test for dehydration.

“I didn’t know about that kind [belly] tenting, I only did it on a hand before....my first day there, one of the local doctors said ‘here, here’s tenting, this is what it means’ so it took two seconds to learn it...I think the more you know, the more confidence you have going into an unknown situation. It’s not an unknown situation then.” (Participant 10, Nurse, Large NGO)

Many organizations that provided training supports chose to train their delegates during times of ‘normality’ and ‘non-events’. Participants whose organizations chose to train during times of normalcy found this support to be very effective.

“That’s really critical to do that, that you prepare to go offline, not when something’s happening but when something’s not happening, that you’re training personnel to train for a disaster when there is no disaster. That’s key, you know.” (Participant 8, Physician, Large NGO)

Those who chose to train responders pre-disaster were provided with a very small window of opportunity to train their delegates, which created stress and disorganization. The data shows that even when made, standard on-site pre-departure briefings were not always fully effective and were, at times found to be overwhelming. As Participant 9 states,

“People can only absorb so much and when they come down, it’s so hard to process what they see, but they feel like ‘you didn’t tell me to expect this’. It’s very hard to show someone what to expect even though you try, so it’s a difficult task to brief someone, so it doesn’t translate to being well prepared when you come. The cultural shock of what you’re coming into and the situation that you’re coming into still seems to affect most people.” (Participant 9, Anaesthesiologist, Large faith-based organization)

One recommendation was to put some of the ‘standard’ briefing information that is non-specific to the country (ie: safety protocol, physical supports, psychological and emotional strategies) into online modules.

“I think they could create some of that online, because if I could do an hour, you know 2-3 hour modules online or whatever, before, instead of necessarily having all of it be face-to-face in person, because all of these people are giving up a lot of work time to go.”

(Participant 3, Physician, Large NGO)

The second type of instrumental support that was provided by organizations was safety and security. Most delegates were comforted by the presence of safety personnel and high security and those who deployed with organizations that did not provide these supports, cited this as a gap.

“That’s where I thought things were really lacking [in regards to safety supports]. It’s kind of crazy when you think about it, you’re just kind of given a truck and a driver and you go out and there’s a radio...and there’s a security officer that briefs you on security and you have orders to be indoors by nightfall. But other than that, you’re really kind of on your own there.” (Participant 17, Epidemiologist, Canadian government)

However, some delegates who entered the response with background experience in disaster response, specifically those that remained in Haiti for extended periods of time, eventually found these security supports to be stifling. One program manager recalls,

“I know volunteers...some of them were a little shocked at the level of security and wondered ‘why do we have so much security, is there something we need to be worried about here?’ And that got them more upset. And then some of them were really relieved to see all of the security.” (Participant 9, Anaesthesiologist, Large faith-based organization)

There is a need for organizations to keep in mind the demographic of their volunteers. While some experienced responders felt a sense of “overkill” within the safety and security supports, organizations had to also consider volunteers who were not working in the field. Those who were in the field developed a sense of familiarity with the Haitian context and, over time, were able to somewhat gauge the level of risk within a certain area. This was not the case, however, for staff working in administrative roles, who were unable to make these safety judgements. Organizations are responsible for ensuring participants’ expectations for the level of expected safety are realistic, and that a balance between personal and organizational responsibility is achieved.

The third instrumental strategy of support was psychological and emotional supports. One of the more effective psychological and emotional support strategies was the use of chaplains as mental health supports. These chaplains were available to provide delegates with emotional, psychological and spiritual support, as needed. By living on the base camp and working alongside the health personnel, these chaplains were better able to relate and assist any delegates who were experiencing psychological or emotional stress. This strategy worked much better than rotating chaplains every month, as the delegates responded better to mental health personnel who were in Haiti for long-term deployments. When a rotation system of chaplains was implemented on a monthly basis, fewer delegates were willing to speak to the chaplains. This was related to the attitudes of health personnel, who often shared a common feeling of ‘invincibility’. This made it difficult for the mental health personnel to approach them with supports, unless they had developed a personal rapport with them. As stated by one mental health counsellor,

“[we] embed ourselves with the volunteers...So what that may mean is that when you go in, we had all these boxes donated, medical supplies, and if I wasn’t doing something

else, I would go stand around and help sort these medical supplies...I see it as kind of a covert mental health...because if you set up a desk and you say 'I'm the doctor and I'm here', no one's gonna come talk to you. But if you're a fellow worker, they'll talk to you, and people will actually start to seek you out...if you keep it casual, it doesn't stigmatize what's going on." (Participant 20, Psychologist, Faith based organization)

This attitude was very common amongst health and social service providers, and exemplifies the need to develop strategies that would allow delegates to utilize supports without feeling stigmatized.

"I think I personally felt well-prepared to do that [respond] more or less on my own and wing it, which is kind of just how it ended up being...would I have liked some more psychological support or check-ins from leadership, myself? It would've absolutely, absolutely been appropriate and could have happened more than it did." (Participant 15, Psychologist, Faith-based organization)

Another strategy that was provided to some delegates was the opportunity to communicate with home for access to informal support from family and friends.

"I think that communication with home was really important, during the earthquake we had one satellite phone, that's the only way you could talk to home and I know that was really hard on people and my volunteers at any point when they came, for them to be able to call their families...was really important." (Participant 9, Anaesthesiologist, Large faith-based organization)

While some delegates were comforted by speaking to their loved ones, others noticed a negative consequence with doing so. Because of the severity of the context in Haiti, participants' 'venting' about their experiences often caused their loved ones to feel panic and worry. As a result, healthy team dynamics and emotional support from colleagues became very important. As stated by one participant,

“We [she and her friend] just sit and talk and vent...she's been there, she understands...my first trip with Katrina, I used my husband for that and I quickly learned that wasn't a good idea because my husband worried about me. He didn't know that this was normal and that it would pass...he just wanted to make it go away and his response was 'you shouldn't do this stuff anymore'. So I learned not to do that, because it's not fair to him either and then you also bring up the issue of secondary traumatization.”

(Participant 20, Psychologist, Faith based organization)

Another strategy that was used to promote psychological and mental health was defined periods of deployment. These deployment recommendations ranged from 2 weeks to 3 months, depending on the time and organization with which the delegate deployed. Those who responded immediately after the disaster were recommended shorter periods of deployment, as opposed to those who deployed to Haiti several months after the earthquake. The organizations were faced with choosing a deployment period that was long enough to allow for effective work and continuity, but short enough to ensure that personnel did not burn out whilst in Haiti. This dilemma was highlighted by a few of the participants,

“How much can you actually be effective if you're only here for two weeks. By the time you actually learn what you're supposed to be doing, you're leaving. So you actually

want longer deployments, but then you have to pre-determine how long your minimum deployment will be and have that pre-deployment approval process already in place.”

(Participant 1, Program Manager, Government)

“Some [delegates] definitely should have gone home. It paid to have teams come in and out for two weeks...the ten days was like two months...that’s the catch 22. Ten days wasn’t enough to do what you wanted to do. Two weeks would have been better. Two or three weeks would have been optimum...you could go longer, I can see that for the right person, but I can see how healthy it would be for people to take a break after two weeks even if it’s heading back to North America for a week and then re-deploying. Many people [did that], you could see the difference.” (Participant 15, Psychologist, Faith based organization)

Furthermore, some organizations sought to provide short bouts of rest and relaxation to the delegates on-site. Some participants remembered doing yoga and playing sports with their deployment teams, as an effective way to unwind and relieve stress, when feasible.

Upon completing their deployment, many participants experienced grief and had difficulty resuming their normal routines. Much of this was attributed to feelings of guilt for leaving the disaster situation, combined with fatigue.

“Coming back to the routine [of work as a surgeon in Canada], I didn’t feel like I needed much adjustment. But part of me was grieving, for the unique experience and the unique time. You’re there a month and it’s so intense at times that it feels like you’re there a year...what you do seems to have more meaning over there, so when you come back,

things are more routine or feel a little less meaningful.” (Participant 18, Surgeon, Large NGO)

“I never would have thought I would experience that, I said ‘I’m tired and I’m crying all the time there and it’s not good and I treated myself and said ‘I’m leaving’ so I went back to Canada for a reprieve...I get into the airplane and I look back and I saw the unfinished work and suddenly I had a feeling as if I’m abandoning those people and it was awful. So I spent the whole time flying from Haiti to Ottawa crying, because [I’d] abandoned them” (Participant 16, Anaesthesiologist, Bilateral non-state institution)

“We were down there for aftershocks that shook us out of bed so it was kind of, in the back of my mind, I was thinking ‘Oh it’ll be nice to feel safe again’, but then I don’t really like leaving other people feeling unsafe, so that’s where we struggle with leaving.” (Participant 2, Nurse, Independent)

These grieving processes often resulted in a lasting emotional effect and connection to Haiti. As seen in a quote by Participant 18,

“I mean I can’t see pictures without feeling something quite strong. I can’t remember when, but it was much afterwards, I saw a *Time* special issue about that and seeing the pictures still makes me very emotional. It was a very, very strong and meaningful experience.” (Participant 18, Surgeon, Large NGO)

In addition to this grieving process, others felt PTSD. According to Participant 2,

“[Aftershocks] were terrifying. So then any time, even still, if I feel a truck outside and it shakes my house, I just still get terrified thinking that could happen to me, and on the

airplane, we had some turbulence and I thought it was happening again...it really messes you up.” (Participant 2, Nurse, Independent)

These feelings were slightly lessened for more experienced responders and those who had expectations that aligned with their experiences. As stated by Participant 10, who had deployed on more than 10 disasters, “I get right back into it [routine], I guess I’ve done it so many times that I know how I feel when I get home, I know before I get home how I feel when I get there.” (Participant 10, Nurse, Large NGO)

Finally, many of the participants shared the common difficulty of returning to their demanding vocations shortly after their return.

“I mean you come back and as a physician, you leave your work and a lot of work just doesn’t get done, and you come into this avalanche, I mean the hard thing about coming home was just coming home to so much that needed to be done.” (Participant 3, Physician, Large NGO)

One of the organizational strategies used to address these feelings of stress was debriefing and follow-ups. The usefulness of debriefing was evident in the data. In terms of reported scores for individual supports, the need for debriefings and follow up was the greatest need or recommendation, with 57% of the participants noting its importance. Many participants felt that the debriefing and emotional supports provided were not always clear or useful. As seen in the interviews,

“We all lived together in a tent, the team, and we drove to [our home base], and just sort of said our goodbyes, put the equipment away, did our own clearance, handed in the

weapons and all that stuff that we had signed out, went to the social worker and yeah that was it. But when we go home, we all know that we have those resources available if we need them. After the fact. But we, there was no big process in place.” (Participant 19, Nurse, Canadian military)

First-time responders were more likely to find the debriefing sessions useful and many were offended that their organizations did not phone to follow up with them post-deployment. These feelings were linked with the individual’s expectations and informal support system. Moreover, many participants stated that follow-ups not only allowed them the option of emotional support, but gave organizations the opportunity to improve, learn from their mistakes, and address any gaps in the supports that were provided. Of those who recommended better debriefing mechanisms be implemented, most suggested they take place immediately upon return. Others recommended the support be made mandatory, to combat the typical attitudes of health and social service providers.

“You have the opportunity to use employee services but there was no mandated requirement to make an appointment and that’s something that should be put in place that you know, within two weeks of arrival at home, you’re expected to make an appointment...most people probably say ‘I don’t need to’ but it might be a precaution...when there’s so much death and destruction around you...something like that should be made probably mandatory.” (Participant 12, Program Manager, Government)

“But I think that it’s an important part of the process, for the person to have a debriefing, upon their return, because they experience a lot of stress, and they need to talk about it. And sometimes the circle around one person is not reliable—like family and friends,

sometimes they just get tired, to hear about stories from the deployment, so I think it's important for organizations to create that space for people to debrief." (Participant 14, Program Manager, Large NGO)

After taking some time to sleep, rest and think, some delegates were able to go back to Haiti and respond effectively with new ideas and energy. The data suggests that those who went more than once may have experienced a sense of closure, whereas those who deployed for a short period of time and did not receive any follow ups, may have had a more difficult time re-integrating into 'normality'.

The final type of instrumental strategy was the provision of physical supports. Many participants, particularly those who did not deploy with large organizations, recalled having to bring all of their own medical equipment, drinking water and resources. There was a remarkable difference in expectations between the delegates who deployed with large established organizations, as opposed to smaller NGOs and faith based organizations. According to a participant who deployed with a large organization,

"I expect that [organization name] will worry about my safety, I expect that they'll give me lodging, it may not be comfortable or nice but it'll be there." (Participant 3, Physician, Large NGO)

Secondly, participants stated the need for logisticians who were available to provide them with logistical supports.

“Pre-departure I think there’s a need for protocol, for everything from the logistics, in terms of visas, passports, supplies, all of the things that people would need to do.”

(Participant 21, Program Manager, Government)

When these supports were not in place, the consequences were vast,

“I think we had a problem in the field and sent it up to the coordinator, the coordinator would really try to address it but she couldn’t do everything....a lot of things took weeks to figure out and I don’t think that was acceptable...I had an issue with something awful, just an overflow of dead bodies in a morgue...these are emergencies...questions should be better answered – like immediately....they’re very disturbing, some of these situations.”

(Participant 17, Epidemiologist, Canadian government)

The need for logisticians who were aware of medical best practices on-site was also key. Participants stated that it was very hard to make treatment decisions without the appropriate guidance and logistical supports. As stated by Participant 17,

“I’d get questions about...pregnant women in a cholera treatment center – do we leave them there? Do we take them to the hospital? You can’t take them to a hospital because they have cholera. And you can’t deliver babies in a treatment center. These are big questions and I think you have to be able to deal with that. So I wasn’t prepared for those kinds of questions and I also didn’t have a logistician a lot of the time.” (Participant 17, Epidemiologist, Canadian government)

### *Consequences of Communication and Leadership Strategies*

Team dynamics were a critical element of the response. Because of the context of the disaster, many participants received the most psychological and emotional support from their colleagues and team leaders. Team leaders were essential to the facilitation of healthy teams and team dynamics and it was under their guidance that delegates were taught the importance of teamwork and were given an opportunity to share and confide in one another. Effective team leaders ensured delegates were provided with a clear sense of purpose and defined roles and tasks. A further understanding of these roles came through a combination of training, clear expectations, previous experience and positive attitudes.

“[the team leader] basically led by example and said, ‘you know, you gotta be prepared, anything can happen so be ready’ but he got everybody together, he made sure everybody understood what the emergency procedures were, so it was a very balanced and very strong network of people at that point.” (Participant 5, Physician, Large NGO)

Because team dynamics were an important part of the support system, ranking as the second most recommended support, it was crucial that recruiters chose individuals who were team players and understood the importance of team dynamics.

“there was a threat ‘If you don’t want to work together, you may go back home’. And that was clearly stipulated. And from there everybody lined up and then it was very nice.” (Participant 16, Anaesthesiologist, Bilateral non-state institution)

“One of the big things I really try to teach people, volunteers, is that you can’t go over as Dr. So-and-so and be self-important, because that’s not going to help anybody and you’re not gonna be very effective...I really try to help people realize that you’re just part of a

team, and that's actually the best- the appeal of it, once you do it, you're like 'Wow, this is great'." (Participant 20, Psychologist, Faith-based organization)

One of the effective strategies was an introduction of teams pre-deployment, when possible.

"I think it's always important...you have to kind of get to know the people that you're working with...so if you're going with a team or just a few people, just having at least talked to them before and seeing their perspectives on things...just to know what to expect from the people you're working with because it does have to be a really big team effort." (Participant 2, Nurse, Independent)

Team leaders also found that it was effective to pair individuals based on their experience. Some participants spoke of the use of 'buddy systems' which allowed for an informal exchange and camaraderie between delegates. This was also a strategy used to ensure that first-time responders were not left overwhelmed in the field.

"If I could do anything, it would be to make sure the novice, the rookies, have got a mentor. So the first time you're deployed, you know this person is your mentor...call them your buddy, call them your mentor, call them your founding block, but if you have an issue, hash it out and talk to this person." (Participant 10, Nurse, Large NGO)

To ensure that teams operated smoothly, it was crucial that team leaders and coordinators outlined clear roles for everyone. This was especially true of health and social service providers, who typically are used to being 'in charge', as is seen in the following quote,

“[many health professions are] used to being the boss...you’re used to being the boss, so people tend to like do it all and don’t think that other people need to contribute.”

(Participant 9, Anaesthesiologist, Large faith-based organization)

When these roles were not well defined, they led to much confusion and were cited as a gap. It was also very frustrating for delegates who expected to perform one role but were given a different task once on-site.

“The day I arrived, they informed me a) there would be no anaesthetist available and b) there would be no elective surgery to be performed, so the day I got there, they told me that they didn’t need me. I ran out of patients, saw people and advised them...but we didn’t do nearly as much surgery as we could have.” (Participant 11, Surgeon, Large NGO)

Another strategy that was important to delegates was the importance of communication between those on-site and headquarters in Canada. Lack of communication is stressful not only to the delegates on-site but to those working in headquarters.

“It took a few days for us to be in touch with our team in the field because all the communications were shut down, and it was very hard, it wasn’t possible to contact the people in our team...from a head office perspective, it was very hard for us not knowing if they were alive or if they were dead, so it was a very stressful situation.” (Participant 14, Program Manager, Large NGO)

Finally, the data indicated that, in times of disaster, the media can serve as a double-edged sword. While it can be useful to gain attention to the severity of a situation, it may also be harmful if the country context and disaster situation are portrayed incorrectly.

“It’s quite hilarious to hear the media talk about ‘What’s taking so long, why is it difficult [the response]’. Well, there are no roads, the airport is blocked, like I think people are very, very naive in terms of how difficult it is to do this kind of work and the expectations are unbelievably unrealistic for what can happen and how quickly things can happen. It’s difficult, complex work.” (Participant 8, Physician, Large NGO)

Despite the gaps in supports and stressful situations that were encountered in Haiti, the majority of participants reported an overall positive experience and highlighted how they would readily deploy to Haiti or respond to another disaster again in the future. As stated by one participant,

“Don’t take my words the wrong way, but I enjoyed the experience. It was a very positive experience, we’ll put it that way, it was, it was certainly an excellent learning opportunity to actually see these capabilities deployed in the field and working. (Participant 12, Program Manager, Canadian government)

“The personal growth you can get out of it was pretty phenomenal...to be able to touch the lives of the Haitian people...that was pretty phenomenal, pretty rewarding.” (Participant 15, Psychologist/Social worker, faith based organization)

## **CHAPTER 5: Developing Theory and Discussion**

According to Strauss and Corbin (1990), grounded theory is developed by identifying emergent themes within the Context, Causes, Strategies and Consequences. In order to develop an abstract theory, the interaction between these four categories was explored in relation to overall outcomes and experiences. Tables 7 and 8 were used, along with the participant recommendations, to identify how these categories influenced one another.

As demonstrated in the Consequences, the data showed a great need for improved training supports (Table 8). Most participants also stated that effective debriefing supports were a gap within most organizations. However, some participants who received both of these supports, as well as others, did not experience an overall positive outcome. This indicates, as confirmed in the Consequences, that supports alone do not determine the overall outcome of participant experiences. Supports interact with causal factors, which are both expectations and the lens, to play a crucial role in determining overall outcomes. The data indicated that organizations should aim to recruit delegates whose lenses align with their organizational mandate and the available supports. Organizations should also focus on ensuring expectations are realistic, and selecting individuals with a lens that aligns with their mandate, through effective training and recruitment. By targeting the factors (training and recruitment/screening) that affect the Causes (lens and expectations), organizations can better ensure an overall positive experience for their delegates.

This relationship is demonstrated below in Figure 3. Six emergent themes were identified in the data and were used to shape this theory. These themes are discussed below, and are followed by a summary of key findings, found in Table 10.

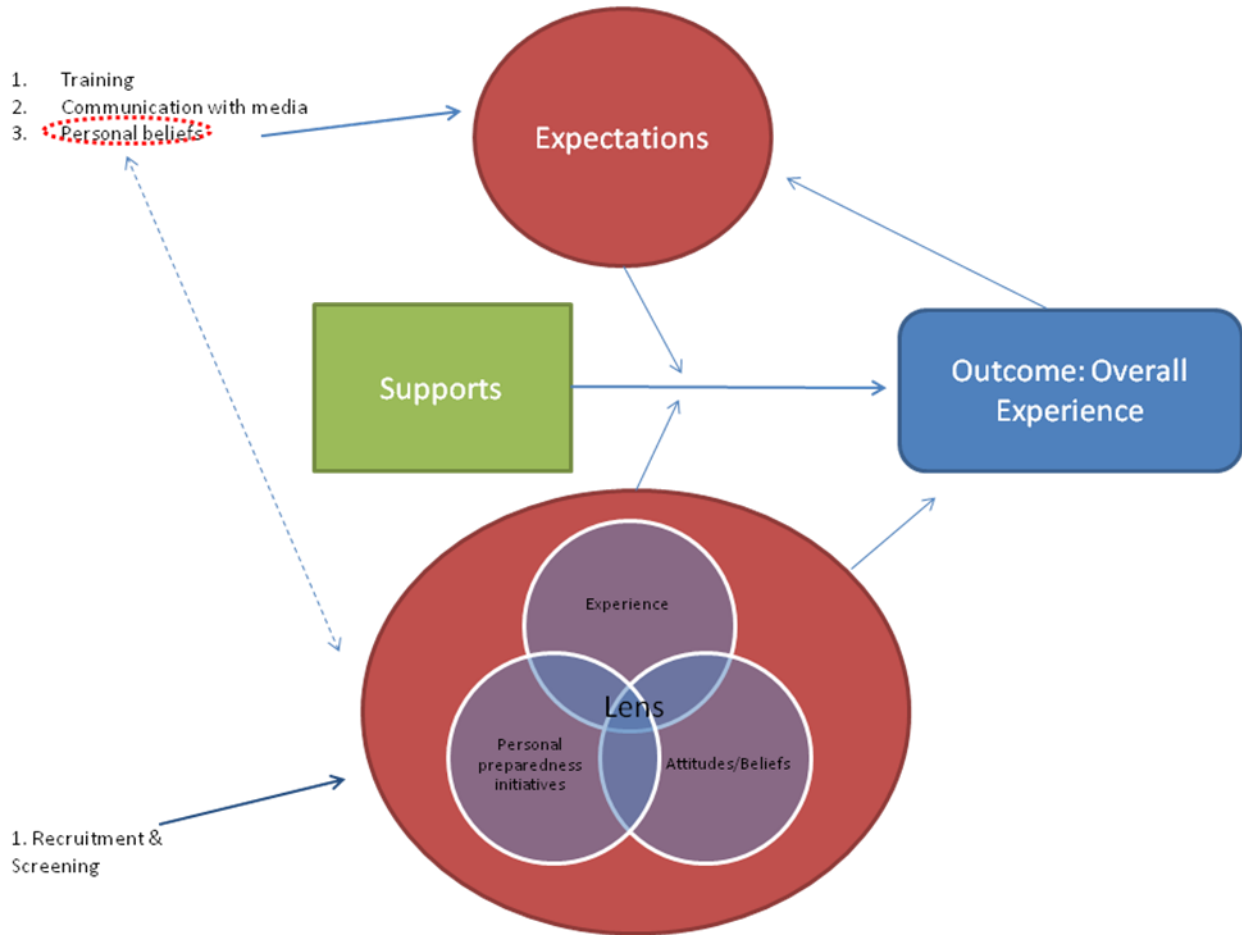


Figure 3: A model outlining the theoretical relationships between factors that influence the overall experiences and outcomes in the disaster response.

According to the data, overall experiences were dependent on the types of supports provided by the responder's affiliated organization, however this relationship appeared to be mediated by expectations and the participants' lens. Those who deployed with large organizations with extensive experience reported feeling well-supported and understood they were part of a 'bigger picture', while those who deployed with smaller organizations often indicated that they felt under-supported and disorganized. While this trend is found in many relief responses, it was especially true in Haiti, which was a challenging context for both inexperienced delegates and organizations. Those delegates who felt supported were often trained pre-departure, had their physical needs cared for by the organization, and had clear safety and security as well as psychological and emotional supports in place.

The findings from this study indicate that a participant's lens can positively or negatively mediate, either by adding to or taking away from, the effects of a support strategy on the desired outcome (i.e., an overall positive experience). As indicated in Figure 3, a person's lens is shaped by background experiences, beliefs and attitudes, as well as personal initiatives and preparedness. Thus, achieving a positive outcome requires the recruitment of delegates who possess a specific type of lens, making screening and recruitment key to the overall outcome. Recruiters and program coordinators should ensure they are screening for individuals who possess a lens that aligns with the supports the organization is able to provide. This finding was prominent throughout the data, with participants in recruitment or management positions citing the importance of recruiting the right types of delegates to ensure resiliency for individual participants, teams, and the overall response.

The existing literature indicates current screening processes in place for disaster relief recruitment and screening are at times ineffective (Jagim, 2008; Pardess, 2005; Thormar et al., 2010). This is consistent with the findings from the current study, where recruiters find it difficult to gauge whether a responder will be resilient in the field. Traditionally, common traits that organizations look for in responders include organizational skills, a high emotional intelligence, sensitivity and compassion (Frasca, 2010; Yonge et al., 2010). In addition to having certain personality traits and characteristics that would be an asset in the field, response organizers must also find delegates who are able to deploy on short notice.

However, recommendations from the participants in this study suggest improving recruitment processes by screening for delegates that possess attitudes that align with the organizational mandate as well as the supports an organization is able to provide. One of the most common recommendations included screening for individuals who did not have pressing family needs, such as dependents. Other qualities that recruiters thought were required for on-site resiliency included flexibility, respectfulness, previous experience with disasters, humility, and people who were able to work in teams. Furthermore, program directors sought to recruit delegates who were adaptable, compassionate and empathetic to both their colleagues and the Haitian people. The literature supported some of these findings, indicating that one of the biggest challenges in the international disaster response is being able to effectively work with the affected population, rather than providing care by 'taking over' (Ursano et al., 2009).

Finally, the participants suggested that screening procedures explore personal initiatives taken by the delegates, for instance, to recruit individuals familiar with the French or Creole language, or those who had taken emergency response training courses. By doing this, organizations can effectively recruit during times of normalcy, thus bypassing the initial 'response hype' (the

period of time when people are typically the most interested and motivated to respond) that accompanies large disasters. Screening in this manner will ensure that an organization's available supports are best aligned to the recruited participants, thus facilitating an overall positive outcome.

In addition to mediating, the lens can sometimes, in unique settings and situations, compensate for a lack of supports or ineffective support strategies. This means that the "lens" can itself suffice, or can independently serve, as a support mechanism that is innate to the individual. The data and literature showed many examples of independent volunteers who were given little to no formal supports, yet had a rewarding, positive experience in Haiti (Chally, Hernke & Scz, 2010; Fraleigh, 2010; Hillel, 2010; Ketchie & Breuilly, 2010). In terms of the developing theory, it would suggest these individuals possess a "lens" that enabled them to be resilient in a difficult context.

This lens can be affected, either positively or negatively, when in combination with support strategies, as seen in Figure 3. The data and literature indicate that the perceived level of effectiveness of supports provided to delegates is dependent on their attitudes, beliefs, personal backgrounds and experiences, as their "lenses" shape their perceptions. Therefore, there is an interaction between external and internal interventions. Support strategies are external interventions aimed at providing instrumental assistance to the delegates, while the lens is an internal mechanism, which can be supported with psychological and emotional supports. The developing theory presented in Figure 3 indicates that it is a balance of the two that creates an overall positive experience for responders.

Expectations can override the effects of a support strategy and affect the overall outcome of the experience. It is important to remember that expectations differ greatly from the lens, and, as seen in Figure 3, are two separate entities in the developing theory. The lens is an attribute, unique to the individual, and rooted in personal experiences, attitudes and beliefs. Expectations, however, are formed specific to a response or situation. These expectations are shaped through: 1) Personal beliefs; 2) Training and briefing supports; and 3) Media influence. Therefore, as seen in Figure 3, the *expectations* and the *lens* are comprised of both individual factors (personal beliefs and stigmas) and collective, group supports (information dissemination through effective training and accurate media coverage).

As such, training can shape expectations. The data indicate that almost 40% of participants would have liked to receive better pre-departure or early on-site briefing. According to both the findings and the literature, these briefing sessions should include information on the political and economic situation of the country, roles and team dynamics, and medical concerns specific to the disaster response. In addition, training modules should prepare delegates to deal effectively with the context, roles, security threats and psychological risks on-site. These briefings are needed to ensure responders are well-prepared pre-deployment so as to avoid discouragement, panic and burnout (Hsu et al., 2006; Frasca, 2010; Pardess, 2005; Thomas, 2004). Because there is currently no standard when it comes to the availability and usage of standard training guidelines, training delegates for a disaster response is highly dependent on the affiliated organization (Rosborough, 2010). Effective training supports should include medical and practical training, particularly for physicians and nurses (Hillel, 2010; Raviv, 2010). Training programs should also teach delegates the skills required to respond in resource-limited settings (Archer, Moschovis, Le & Farmer, 2011).

The data from this study indicate that media, which may not typically be considered a support strategy, plays a role in participant experiences. This was also found in the literature, which states that there are “concerns about the integrity and authenticity of news released by media relations of the prefecture which is away from the affected area” (Suzuki, Nakajima, Kim, 2012, p. 8), indicating that what is reported may not always be the most accurate reflection of what the delegates will experience on-site. Inaccurate media coverage causes delegates to enter a context with false expectations, which may impact their ability to respond once on-site. Furthermore, negative or pessimistic media may discourage delegates who just returned from a disaster and can lead to feelings of being underappreciated (Suzuki et al., 2012). Organizations should seek to provide the media and potential delegates with situation reports and briefings, to ensure that expectations are as accurate as possible pre-deployment.

Figure 3 implies a synergistic effect between expectations and support strategies. When the information disseminated leaves delegates with realistic expectations, support systems will be deemed more effective. Moreover, when expectations align with the reality of the response, delegates are more likely to perceive the support strategies in a positive light. As a result, organizations should target both expectations and support strategies to ensure overall positive outcomes.

Once the factors that influence the lens and expectations are identified, project coordinators can appropriately select strategies for support that will facilitate a positive feedback loop between these ‘causal’ factors and the perceived effectiveness of the available supports. Thus, it would seem that these Causal factors can be targeted through a use of Recruitment and Training strategies, respectively.

Part of the ‘lens’ is influenced by background and previous experience with disasters. If organizations utilize support strategies that provide delegates with positive experiences, then, over time, the delegate’s lens will be shaped positively, in accordance with their attitudes and beliefs about the disaster response. An ideal system provides delegates with supports that would shape their lens positively, and provide them with clear, accurate expectations pre-deployment.

All of the other aforementioned supports, in addition to training, recruitment and communication with the media, are key to ensuring overall positive outcomes. Those who reported overall positive experiences in Haiti typically had instrumental as well as communication and leadership supports provided by their organization (regardless of whether or not they chose to use them or found them effective). Those who were not provided with these supports either reported a negative experience, or cited these supports as lacking. This is best seen in the data, in terms of safety and security support, which was the number one support provided to the participants. As stated by Thomas (2004), there are three key factors for effective security preparedness: individual commitment, organizational preparedness and risk assessment. Vitoriano et al. (2011) stated that “although a natural disaster, security [in Haiti] became an important bottleneck [to providing relief]” (p.191). Organizations that were effective in their safety precautions ensured their personnel were well trained and debriefed about the security risks in Haiti.

In the current study, the participants who cited safety and security as a gap, or recommended that it be improved, were typically affiliated with faith-based organizations that did not have this support in place. This highlights the importance of expectations, as many of these delegates expected their organization would provide them with effective safety and security protocols, while those who deployed with larger organizations simply registered this support as a “basic expectation” and did not highlight it as a gap. This example of safety & security supports is

depicted in Figure 3, as it highlights how supports can directly affect the outcomes and overall experiences of the participants, as well as how the perception of the effectiveness of supports can be affected by training, expectations and lens.

However, as highlighted in this discussion and in Figure 3, expectations and lens can also influence the effects of having supports. In fact, many of the individuals who cited a gap had *expected* their affiliated organization to ensure their protection and safety. To ensure supports are used to their full potential, training and recruitment and screening are key to selecting individuals with expectations and lenses that best align with the supports an organization is able to provide. A combination of screening for an appropriate lens and providing training to ensure delegates possess clear expectations, as well as provision of both instrumental and communicative and leadership supports, will contribute to an overall positive experience for the delegates. Below is a summary of this developing theory and discussion, highlighting the key findings and overarching themes.

*Table 10: Summary of Key Findings and Overarching Themes*

- **Infrastructure, Organization and Incident Command positively affect the support strategies that are offered to the delegates**
  - Participants who deployed with large NGOs reported being provided with the greatest number as well as the most useful support systems
  - Infrastructure and organization, as well as incident command, are required for coordinated dissemination of support strategies that are deemed useful by their users
- **The “lens” can mediate the effects of a support strategy on the desired outcome**
  - The lens is based on personal experiences and attitudes that are unique to the individual.
  - The lens can positively or negatively mediate the effects of a support strategy on the desired outcome.
  - As a result, recruiters and program coordinators should ensure that they are screening for individuals whose lenses align with the types of supports they offer
- **The lens can compensate for a lack of supports or supplement ineffective supports**
  - The lens can independently serve as a support mechanism that is innate to the individual.
  - Support strategies are external interventions aimed at assisting the delegates. However, lens itself can serve as an internal support strategy.
- **Expectations can override the effect of a support strategy and affect the overall outcome**
  - Expectations are specific to the response or situation and are formed both individually (via personal beliefs and stigmas) and collectively (via information dissemination through training and communication with the media)
  - Training can shape expectations. Organizations should train delegates in order to ensure that the outcomes and overall experiences are even more positive.
- **Both the expectations and the lens have a feedback loop that can positively or negatively reinforce strategies of support**
  - “Training” targets individual “expectations”, while “Recruitment” targets selecting the individuals with the appropriate “lens”
  - Expectations and the lens can be affected by the types of supports that are offered
  - There is a synergistic effect between expectations and lens. Organizations should target both expectations and support to improve the overall experience of the response.
- **Formal and Communicative & Leadership supports should be used effectively to shape the lens and expectations and ensure an overall positive response**
  - All other supports still need to be in place for overall positive outcomes.
  - Individuals who reported good outcomes usually had these supports in place. Those who were not provided with these supports either reported a bad experience or cited these supports as lacking.
  - Exception: when the lens “overrides” the lack of supports (ex: independent responder who had a positive outcome despite a lack of supports)

## **CHAPTER 6: Recommendations and Conclusions**

The final chapter consists of two sections. The first provides a set of recommendations to relief response managers and organizations and highlights key areas for future research. The second section provides a summary of the objectives of the thesis as well as final conclusions.

### **6.1 Recommendations**

The developing theoretical model shown in Figure 3 offers an abstract conceptualization regarding the interactions between the various categories that were outlined in Strauss and Corbin's (1990) approach to grounded theory. There is a synergistic effect between the *Causes*, *Expectations and Lens*, and *Strategies* that affect the overall *Outcomes/Consequences*, which are the experiences of the delegates. To achieve a positive overall experience of deployment, it is necessary for organization managers and program directors to target both the *Causes* and the *Strategies* (or supports). In addition to effective training, targeted screening and recruitment will ensure that delegates are prepared to respond to a context such as Haiti. An alignment of lenses and expectations with instrumental and communicative & leadership supports will lead to an overall positive experience for relief workers.

This chapter provides a list of recommendations for future research to improve overall experiences of Canadian health and social service delegates responding to international disasters.

***(1) Organizations should place emphasis on training supports, which are key in shaping the lens and expectations.***

Training, particularly pre-deployment briefing, is important in defining expectations. Because expectations are very important in defining outcomes, organizations should place heavy emphasis on the establishment of effective training supports, which include medical and practical

training, particularly for physicians and nurses. Training supports can be made available to health personnel as online modules, to accommodate busy schedules and to avoid overwhelming responders with on-site information. The recommendation is that the supports are tailored in order to train volunteers on how to be respectful towards other cultures and maintain a positive atmosphere in the international response. Furthermore, the supports should train volunteers to be effective team players and to remain physically and emotionally resilient in the field. In addition, there is a need to ensure that pre-departure briefings, specific to the disaster, are carried out in a timely fashion. These briefings should highlight the roles and tasks, logistic information, context of the country, and security and safety protocols.

***(2) Organizations should screen for individuals who possess a ‘lens’ which aligns with the supports they are able to provide***

Organizations should ensure their delegates share attitudes and beliefs that align with the organizational mandate. One of the more effective strategies is to employ the use of a roster system, with the names and skills of individuals who have previously been deployed in the emergency response, and who have shown to be resilient on-site. It is crucial that novice workers be paired with an experienced delegate or mentor, to ensure they do not become overwhelmed on site and are able to fulfill their duties. If novice responders experience an overall positive deployment, it is likely to influence their lens for future relief work. The literature and data show that individuals who are team players, adaptable, compassionate, empathetic, flexible and respectful are typically found to be resilient on-site.

***(3) Organizations should ensure safety rules and protocols are well-established.***

Most volunteer delegates deploying with a relief organization expect to be provided with supports that ensure a safe and secure deployment. With the reports and concerns regarding primary abuse, including kidnapping, murder, and robbery, of delegates, many organizations implemented safety and security supports to protect their personnel. Organizations should ensure delegates are given safety protocols that are clear, and should see that these protocols and rules are enforced. At the same time, particularly for long-term responders, organizations should recognize that security supports should be rigid, to avoid injury and harm, but should not stifle the delegate from achieving their goals on the field.

***(4) Organizations should appoint formal psychological support on-site, have periods of rest and relaxation, and create channels for effective debriefing.***

This study supports the literature suggesting that psychological and emotional supports are crucial at every point of the response: pre-departure, on-site and post-deployment (Thomas, 2004; Ursano et al., 2006, Shultz, 2007). The most effective formal psychological supports on-site included the use of chaplains. By becoming part of the team, these chaplains were able to gain the trust of health personnel, who are typically hesitant to voluntarily speak to emotional or mental health counsellors. The other type of support that was found to be effective was the provision of communication channels so that delegates could contact loved ones back home.

The 'ideal' length for deployment in the initial phases of the disaster was recommended to be 2-3 weeks. This allowed the responders enough time to be effective in their roles on-site, without experiencing feelings of burnout and PTSD. For those whose positions allowed or mandated them to remain in Haiti for prolonged periods of time, rest and relaxation strategies, such as reprieves to the Dominican Republic, or back to Canada, were found to be useful. For those who

did not have the flexibility to take these reprieves, on-site relaxation strategies, including physical activity, was found to be useful.

Participants in this study claim that they would have liked a debriefing or follow up almost immediately upon return, whereas the literature states the opposite. According to Suzuki, Nakajima & Kim (2012), “debriefing should not be conducted immediately after disasters because of the risk of making them [delegates] relive the experience. Some of them even get hurt after talking about work that they should have done” (p. 18). They recommend that the supports should be made available, for when a delegate is willing to have a conversation. However, as seen in the findings of this study as well as the literature, due to the attitudes that most health and social service providers possess, many will not *willingly* use these supports, or seek them out. Findings from our study shows that the majority of health and social service providers who responded to the Haitian disaster would have liked to receive immediate debriefing, with some delegates stating that this debrief should be made mandatory. Organizations should appoint licensed, experienced psychologists to phone and follow-up with delegates immediately after the return, to thank them and ensure that they are aware of the psychological and emotional supports that are available to them. Group debriefings for large organizations were found to be difficult in some instances, particularly for Canadian responders. Because Canada is such a large country, many delegates found it difficult to attend some of the group debriefs, which were typically held in eastern Ontario and Quebec. For those who are able to attend, organizations should ensure delegates are not pressured to disclose information or experiences, if they are uncomfortable with doing so.

***(5) Organizations should be self-sufficient and should ensure that physical supports and logistics are well-established***

The context of the earthquake made it very difficult for the relief organizations to find space to set up their field-hospitals and resources, especially when the Haitian people were in dire need of this space. Because resources were so limited, the organizations that were most resilient with their physical supports had their own logisticians, field hospitals, and housing/tents for their delegates. In future response initiatives, organizations should ensure that water and food are always provided to their delegates. They should also ensure that logistics (such as flights, transportation, visas, passports, vaccinations) are clearly outlined and arranged prior to the delegates' arrival. Finally, organizations should provide budgets to react to equipment repair needs and have appropriate mechanisms in place to send home sick or injured responders.

***(6) Team leaders should stress the importance of team cohesion and should outline roles and hold daily debriefs***

The importance of effective communication and trust within teams is crucial in a disaster response, particularly in a context such as Haiti. Effective teams became one cohesive unit that strengthened the resilience of each individual responder. The importance of teams in a disaster response is something that is strongly communicated in the literature (Frasca, 2010; Pardess, 2005; Thomas, 2004; Fishbach, Henderson & Koo, 2011) and the findings from this study. Individuals' performance and contributions are shown to be affected by their team members' goals, initiatives and attitudes. As a result, appointed team leaders should possess a positive, encouraging attitude, to support resiliency among their colleagues. Effective team leaders reminded delegates of their goals, held daily debriefs, and provided responders with space and time to share their experiences and concerns. These leaders also realized that the experience an individual brings into a disaster response greatly affects their resiliency and effectiveness on-site.

As a result, many chose to employ a strategy of pairing novice volunteers with seasoned responders, which was found to be an effective strategy.

***(7) Organizations should have communication portals between Canadian headquarters and those on-site***

The importance of communication between the field and Canadian headquarters was an important aspect of communication. There is a need for portals, such as phone lines, Skype or internet connections, that allow for constant communication between responders and coordinators on-site and those in headquarters. This communication leads to improved preparation, realistic expectations and support for delegates.

***(8) Organizations should provide regular situation reports and briefings, to combat negative or inaccurate media coverage***

Because media coverage is a form of information dissemination, it is important in shaping a delegate's expectations regarding the response effort. When the media provides inaccurate information, it can skew expectations and instil feelings of fear and apprehension. To combat this, organizations should aim to provide press releases or situation reports that accurately reflect the situation of the response on-site. This relates to the previous point, which stresses the need for communication lines between those on-site and headquarters.

*Table 11: Recommendations*

- (1) Organizations should place emphasis on training supports, which are key in shaping the lens and expectations
- (2) Organizations should screen for individuals who possess a ‘lens’ which aligns with the supports they are able to provide
- (3) Organizations should ensure safety rules and protocols are well-established
- (4) Organizations should appoint formal psychological support on-site, have periods of rest and relaxation, and create channels for effective debriefing.
- (5) Organizations should be self-sufficient and should ensure that physical supports and logistics are well-established
- (6) Team leaders should stress the importance of team cohesion, should clearly outline individual roles and hold daily debriefs
- (7) Organizations should have communication portals between headquarters and those on-site
- (8) Organizations should provide regular situation reports and briefings, to combat negative or inaccurate media coverage
- (9) Researchers should further investigate methods to define the lens and expectations that best fit with the relief response

## 6.2 Recommendations for Future Research

This thesis opens the door for future researchers to further explore the components of the lens and expectations. Primarily, researchers can further investigate each of the previously identified supports that were provided to the responders in Haiti, using the results and recommendations to identify gaps in the current systems of support. For example, these findings indicate that medical training is one aspect of an instrumental support that requires improvement. Researchers interested in improving this support can begin by creating basic medical training modules in emergency medical relief that are practical, yet can be generalised. Furthermore, researchers can explore the most efficient way to develop and distribute these modules. Using the same example, innovative health technology can be combined with systems research to find accessible ways of distributing medical training modules to responders both pre-deployment and on-site.

Furthermore, there is a need to explore whether the supports that were identified in this work are tailored and suitable for the responders. As was identified in the results, 100% of the participants reported being provided with some form of psychological and emotional support, yet this support was also identified as the second highest gap. This indicates that it is not sufficient for organizations to simply *implement* a support blindly, but should seek to *tailor* their available supports in order to best meet the needs of their volunteers.

By establishing trends and patterns in the relationship between support system provisions and the perceived outcomes of relief responders, organizations and other agencies involved in emergency preparedness can help align the support strategies they provide for their volunteers with the outcomes they would hope to achieve. This would ultimately lead to better coordination of efforts and supports, as well as overall improved experiences for both the organization providing emergency relief as well as the front-line workers involved in the response.

## **Chapter 7: Limitations**

As in all research, this study had some limitations that should be addressed. While a sample size of  $n=21$  was sufficient for the purpose of this study, further research should be conducted to validate these findings within a larger population. Specifically, the demographic breakdown of the participants was not equally representative by occupation. A large number of participants in the sample ( $n=10$ ) were physicians. This may have skewed the results indicated in Tables 7 and 8. Because each group of health professionals prioritizes different supports, a larger sample size would have provided a more accurate ranking of the biggest gaps in the current systems of support. Future researchers can use this limitation as an opportunity to conduct a follow up study, using a bigger sample size, which would allow organizations to best direct their focus according to their volunteer demographic.

Another limitation was that the participants were only interviewed post-deployment. Ideally, this study would have been conducted in two instalments, the first being pre-deployment to Haiti. This would have allowed the research team to acquire a baseline in participants' expectations, motivations, and lenses, and would have led to a pre-deployment versus post-deployment comparison in any of these categories.

Finally, it is important to keep in mind that Haiti was a unique disaster and that all of the findings may not hold the same external validity in other international disasters. Regardless, all of the identified supports can be tailored to suit the particular context of the disaster-stricken country and the needs of the responders. Furthermore, the model in Figure 3 can be applied to many disasters, as it is void of any context that is specific to Haiti.

## Chapter 8: Conclusions

As outlined in the introduction, this study had four main objectives, which were all achieved in this thesis. A list of these deliverables is provided below:

1. Objective: Provide a structured taxonomy of the available systems of support to Canadian health and social workers responding to an international disaster, such as the 2010 disaster in Haiti.

The systems of support currently offered to health and social service providers pre-deployment, on-site and post-deployment were categorized as ‘Instrumental Supports’ and ‘Communication & Leadership Supports’. Instrumental supports included training supports, safety & security, psychological & emotional supports, and physical supports. Communication & Leadership included effective team leaders and positive team dynamics, communication portals between those on-site and Canadian headquarters, and accurate media coverage and reporting.

2. Objective: Use detailed interviews to provide a structured description of the feedback from Canadian responders who experienced the effects of the current systems of support available to them in Haiti.

These interviews were conducted using the appended interview guide (Appendix A). A detailed description of the participant feedback is found in Chapter 4: Results and is categorized according to Context, Causes, Strategies, and Consequences.

3. Objective: Provide an analysis of the needs of healthcare professionals during their deployment in Haiti and identify gaps within the current systems of support.

The gaps within the current systems of support were identified in Chapter 4.4: Consequences of the Available Supports. According to the participants, there is a need

for improved training supports, particularly in practical and medical training, as well as pre-deployment briefings. They also cited a need for effective team leaders that stressed the importance of team cohesion and established clear roles. Finally, the majority of the participants stated that more effective debriefing supports would have improved their overall experience and ability to cope post-deployment.

4. Objective: Develop a model depicting the impacts of the response on Canadian health and social service providers in Haiti, in relation to the context of the disaster and the supports made available to these responders.

Two models were developed to depict the impacts of the response on the participants. The first of these models, Figure 2, was used to show the relationship between the Context, Causes, Strategies and Consequences of the supports. Secondly, a theory was developed in Figure 3, which highlights the relationship between the strategies of supports and causes, in relation to overall outcomes.

The perception of the available supports was greatly dependent on the delegate's affiliated organization. The data showed that larger organizations with greater experience typically had a more coordinated response than smaller NGOs and faith based organizations. The ability of the available systems of support to cater to the physical, mental, emotional and safety needs of healthcare professionals in the field was highly dependent on an individual's lens and expectations. Furthermore, there was shown to be a feedback loop between the lens and expectations and the various systems of support.

The data also indicated that organizations should aim to recruit delegates whose lenses align with the organizational mandate and available supports. Organizations should focus on improving expectations and selecting individuals with the appropriate lens, through training and

recruitment. This strategy, in combination with Instrumental and Communication & Leadership supports will lead to increased positive overall experiences for the Canadian health and social service providers.

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## Appendix A: Interview Protocol

The purpose of this Appendix is to provide readers with a sample Interview Protocol and Demographic Information Survey that was sent to the University of Ottawa Ethics Review Board, as required. Once approved, this tool was used to collect data from the participants.

### Demographic Information (to be collected before the interview)

Affiliated Organization: \_\_\_\_\_

Occupation: \_\_\_\_\_

Years of Experience

- 1-5 years
- 6-10 years
- 10-20 years
- 20+ years

Credentials/Level of Education: \_\_\_\_\_

Date of Departure to Haiti: \_\_\_\_\_

Have you responded to any other disasters?

If yes, please list:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Did you have any dependents (ie: spouse, children) at the time of departure? If yes, please check the box(es) that apply.

- Spouse
- Child(ren)
- Parent
- Other

## Interview Questions

1. Could you walk me through the steps that you went through with [affiliated organization] pre-deployment?

Probe: Were any supports provided to you through [affiliated organization] pre-deployment?

Probe: Were these supports effective? Please explain.

2. What were your expectations going into the response?
3. What were your motivations/reasons for choosing to respond to this disaster?
4. Could you tell me a little bit about your role in the Haitian disaster response?

Probe: What was the chain of command that you witnessed? (if any)

5. Did you work with a team during your time abroad?

Probe: What type of team? (ie: Interdisciplinary, health professionals)

Probe: Could you describe to me the culture of this team? (ie: team dynamics)

6. I would be very interested in getting an understanding of what the disaster was like for you.
7. Could you please describe your experiences in Haiti during the time of the response?
8. Did you feel prepared to respond to this disaster situation?
9. Were you provided with any supports during your time in Haiti?

Probe: Could you please describe these?

Probe: Were they effective?

Probe: Who provided these supports?

Probe: Were these supports available to everyone? (just relief workers, just healthcare professionals, just individuals from [affiliated organization])

10. In your opinion, were you given the appropriate resources to perform your role effectively?

Probe: If yes, please tell me more

Probe: If no, what was missing?

11. Please describe your experiences returning home after the disaster

Probe: Were you able to fall back into your routine upon return? Why or why not?

Probe: Did you feel that your expectations of the response were met?

12. Did you feel that there were any gaps in the types of supports that were available to you? If so, please describe these gaps.

13. If you could design the best type of training and support systems for someone like yourself going abroad, what would these look like?

That's the end of my questionnaire. Is there anything else that you would like to highlight/address?

## Appendix B: Consent Form

This Appendix is the Consent Form template that was given to the participants, once they agreed to participate in this study. This form was sent to the University of Ottawa Ethics Review Board for approval before the beginning of the study.

### Title of Study:

#### Exploring the Supports Available for Healthcare and Social Service Providers Responding to the Disaster in Haiti

Christine (Tina) Fahim  
University of Ottawa

Supervising Professors:  
University of Ottawa

Dr. Dan Lane  
University of Ottawa

**Invitation to Participate:** I am invited to participate in the abovementioned research study conducted by Christine Fahim of the Telfer School of Management, University of Ottawa.

**Purpose of the Study:** The purpose of the study is to explore the lived experiences of health and social workers deployed to Haiti in response to the 2010 earthquake.

**Participation:** My participation will consist of participating in a single, 1 hour long interview, conducted either by telephone or at the University of Ottawa. During this interview, I will be asked questions regarding the types of support that were available to me before, during and after my deployment to Haiti. I will be asked to reflect on the effectiveness of these support systems and make recommendations on areas for future improvement. I will also be asked to provide some demographic information, such as my occupation and role in the disaster response, the length of time I was deployed, and any organizations that I was affiliated with during the response.

**Risks:** My participation in this study will be limited to discussing my experiences in responding to the Haitian disaster. I understand that recalling and discussing these experiences may cause me emotional or psychological distress. I have received assurance from the researcher that every effort will be made to minimize these risks and that I may refuse to answer any questions posed by the researcher, or stop the interview at any time, should I feel uncomfortable. Before the start of my interview, I will receive a document from the researcher with the contact information of a licensed psychotherapist who deals directly with healthcare workers experiencing stress, and other disorders, upon return from international service.

**Benefits:** My participation in this study will provide insight on the types of supports available to Canadian healthcare workers. The experiences and evaluations highlighted by myself, and other research participants, will reflect the effectiveness of the systems currently in place. This study will seek to develop a model that describes the consequences of the support systems currently in place for healthcare workers in Haiti. This may lead to future research that will seek to ensure responders are being physically, mentally and emotionally protected in the international response initiative.

**Confidentiality and anonymity:** I have received assurance from the researcher that the information I will share will remain strictly confidential. I understand that my confidentiality and anonymity will be protected through the removal of my name from all stored recordings and documents. No names will be used in the study and any quotations used in the research reports will have removed all identifying information, including my organization of affiliation. Unless otherwise specified, only the primary researcher will be present in the room during the time of the interview.

**Conservation of data:** All paper data will be kept in a locked drawer at the University of Ottawa in the research lab of Dr. Tracey O’Sullivan. Electronic data files will be password-protected and only researchers directly involved in the study will have access. Upon completion of the study, information gathered will be stored for 20 years. After this time, all electronic materials will be deleted and all paper materials will be destroyed. The list of participant names and contact information will also be discarded at this time.

**Voluntary Participation:** I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, I will have the choice of determining whether all data gathered until the time of withdrawal will be utilized for the study. Should I refuse the utilization of this data, it will not be included in the analysis for the report and will be destroyed with all other collected data upon termination of the study.

**If I have any questions about the study, I may contact the researcher or her supervisor.**

**Acceptance:** I, \_\_\_\_\_ agree to participate in the above research study conducted by Christine Fahim of the Telfer School of Management, University of Ottawa, whose research is under the supervision of Dr. Tracey O’Sullivan and Dr. Dan Lane of the University of Ottawa.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa.

**There are two copies of the consent form, one of which is mine to keep.**

Participant's signature: \_\_\_\_\_ Date: \_\_\_\_\_