

School of Public Health

Resilience and Women in the Maldives post-disaster: A case study

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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

The research presented and reported in this thesis was conducted in accordance with the National and Medical Research Council National Statement on Ethical Conduct in Human Research (2007), updated March 2014.

The proposed research study received human research ethics approval from Curtin University Human Research Ethics Committee (EC00262), Approval Number # HR 22/2008.

Signature:

Date: 20/5/2020.....

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Abstract

Natural disasters are responsible for millions of deaths and increased health risks persist in surviving populations. An affected population faces severe public consequences, with displaced people bearing additional effects such as malnutrition and communicable diseases. Women are more adversely affected in disasters. Their vulnerability increases because of societal roles. Surviving women often take up additional roles to care for the sick and look after the families of deceased relatives. This significant change in the care-giver role, putting family needs before their own, results in a decline in their emotional wellbeing, and contributes to deteriorating health outcomes for women. The December 2004 tsunami was one of the worst natural disasters recorded in history to reveal the difference in impact on genders in all countries: for every male death there were three female deaths. Maldives is one of the countries greatly affected by the tsunami disaster. One third of its population was affected with 7% displaced for varying periods of time. The cost of the damage was estimated at 62% of the annual GDP.

The study used qualitative methods in a discipline-configurative case study design to understand the factors that contributed to women's experiences following a disaster. The concept of resilience was selected as the conceptual framework for the study. This research attempted to identify the factors that enabled the women to achieve a sense of personal control. It also investigated the influences on the women's sense of personal coherence and the strategies the women used to achieve a sense of personal connectedness. The research has provided important new data from these perspectives and has also explored the attitude and behaviour of others towards the women and the perceptions of changes of their role. The setting for the study was four islands selected because the population had been externally displaced to another island. The principle sample group were the women from these islands who were accessed by snowball sampling. Others who helped these women in rebuilding their lives were categorized into groups and accessed through purposeful sampling. The groups are Family, Volunteers, Army, Health Professionals and the Disaster Management Centre. Data was gathered from multiple data sources of interviews, focus groups, documents and archival records. Participants who were thought to be best able to inform the research were invited to participate in the study. The 103 interviews were conducted by the

researcher in English or Dhivehi (Maldivian local language) as preferred by the interviewee. In addition, 531 newspaper clippings were collected and analysed as documentary evidence.

A deductive approach was used to analyse data related to the pre-set objectives of the study. Data management was facilitated with the use of NVivo 12 software (QSR International Pty Ltd; Doncaster, Victoria, Australia). Data gathered in Dhivehi was translated into English before transcription. As the transcribed interviews generated a large amount of unstructured text, data analysis was conducted in sequences. Sequence 1 was the open coding of the women's interviews. Sequence 2 was the framework analysis of the women's interviews, which found that their experience of the disaster was understood in periods of four distinct timelines. Sequence 3 was the content analysis of the interviews of the other groups who assisted the women. The Sequence 4 analysis was of the 531 newspaper clippings, which were coded according to timelines then content analysed. The final Sequence 5 analysis was pattern matching all sequences of analysis to build the case study. All key characteristics of data from all phases of the analysis were pulled together, mapped and interpreted as a whole. The process allowed a multi-dimensional analysis and created typologies where two or more dimensions in the tables were linked at different points. The typologies and associations explained the experiences of the Maldivian women following the December 2004 tsunami.

This study is among the first of its kind by a female researcher to understand the experiences and resilience of women in disasters within their own cultural context in small island nation communities. According to Reich (2006) principles of control and coherence are a fundamental element of attaining connectedness in disaster contexts. The study findings showed that the provision of help for immediate needs continued with the provision of basic needs of food and shelter, which was assumed as a means for the women to regain their personal control; in fact this undermined their personal control as it created a state of dependency. This study highlighted the lack of enhanced meaning, direction and understanding by others as weakening a response to the women's call for explanations and their search for coherence. The lack of adequate information to meet the women's drive for cognitive clarity, coupled with a lack of support from social relationships, hindered the strategies that could help the women

achieve a sense of personal connectedness. Along with these observations, the study revealed a difference between the women's reflections on the attitudes and behaviours of those who assisted them, and the views of the people who provided that assistance. This research concluded that the women were unable to achieve a sense of personal control nor attain coherence, resulting in them not being able to achieve a sense of connectedness with others. The study findings accentuated social capital as an important factor to maintain women's connections with others in post disaster rebuilding. The findings contributed to the proposal of a context specific model for resilient communities and elucidated recommendations for community organisations and governments in policy and practice. It is hoped the model will be incorporated in changes to policy for disaster management plans.

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List of Abbreviations

CRED	Center for Research on the Epidemiology of Disaster
GDP	Gross Domestic Product
IPU	Inter-Parliamentary Union
NGO	Non-Governmental Organisations
NDMC	National Disaster Management Centre
MPND	Ministry of Planning and National Development
UN	United Nations
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
UNISDR	United Nations International Strategy for Disaster Reduction

Glossary of Terms

<i>Alif Dhaalu Atoll</i>	Group of islands as an administrative division in Maldives
<i>Badiyaa jehun</i>	Cultural pot dance of Maldives performed by young Maldivian women
<i>Bashi</i>	Traditional racket and ball game in Maldives
<i>Bohkuraa</i>	Small fishing boat
<i>Buruni</i>	Island in <i>Thaa Atoll</i> of Maldives
<i>Dhaalu Atoll</i>	Group of islands an administrative division in Maldives
<i>Dhadi jehun</i>	Cultural dance of Maldives
<i>Dhivehi</i>	Official Language of Maldives
<i>Dhoni</i>	Multi-purpose sailboat
<i>Dhuvaafaru</i>	Island in <i>Raa Atoll</i> of Maldives
<i>Fajr</i>	First of the five daily prayers in Islam
<i>Gemendhoo</i>	Island in <i>Dhaalu Atoll</i> of Maldives
<i>Joalifathi</i>	Deck chair made of wood and rope
<i>Kadhohudhoo</i>	Island in <i>Raa Atoll</i> of Maldives
<i>Katheeb</i>	Island Chief
<i>Kuda Katheeb</i>	Deputy Island Chief
<i>Kudahuvadhoo</i>	Island in <i>Dhaalu Atoll</i> of Maldives
<i>Maamigili</i>	Island in <i>Alif Dhaalu Atoll</i> of Maldives
<i>Madifushi</i>	Island in <i>Meemu Atoll</i> of Maldives
<i>Meemu Atoll</i>	Group of islands an administrative division in Maldives
<i>Thaana</i>	Script of the writing language of Maldives
<i>Thaa Atoll</i>	Group of islands as an administrative division in Maldives
<i>Thabulaidhoo</i>	Island in <i>Dhaalu Atoll</i> of Maldives
<i>Raa Atoll</i>	Group of islands as an administrative division in Maldives
<i>Raiymandhoo</i>	Island in <i>Meemu Atoll</i> of Maldives
<i>Vilifushi</i>	Island in <i>Thaa Atoll</i> of Maldives

Chapter One: Introduction

Introduction

This thesis reports the findings of a study that examines Maldivian women's experiences of the disaster of 2004 December tsunami. The study is one of the few qualitative studies to have explored factors that contributed to the women's experiences following a disaster anywhere in the world. The findings provide valuable information about the women's resilience and the experiences within their families, island communities, and host communities. The discoveries also reveal the attitude and behaviour of others who helped the women to rebuild their lives.

The chapter begins by providing an overview of my interest in the research study, recognising the significance of reflexivity when exploring an area of interest. The background and rationale for the study is discussed, and the theoretical and conceptual framework explained. An overview of the study setting, aims and objectives of the study is offered. The chapter concludes with an examination of the limitation of the study, a discussion of the significance of the research, and an overview of the thesis.

Researcher's Professional Context

My interest in resilience of women has emerged from working in a predominantly female profession. In 1992 I trained as a nurse in England and worked for 12 years in Maldives. During that period, I specialised in intensive care nursing in Japan. In 2004 I moved to Australia and had the opportunity of practising as a direct care nurse in the acute care environment as well as in nursing management. Then I moved into the administration system of public health.

In my nursing career in busy ward environments where patients are acutely ill, I have observed that healthcare professionals are often faced with challenges of emergencies where the entire team is focused on saving lives. On top of the hectic workload they are also confronted with shortage of skilled staff and lack of resources, and the conflict of work-life balance. These challenges are often significant events, and I observed a variety of individual and team coping skills. Some environments thrive better when there is strong formal or informal leadership with unified cohesiveness amongst the team. In addition to my interactions with the colleagues, relatives, and patients I have

learnt that in family units when an event occurs it is often the female head of households who take over the burden of looking after the needy and ensuring everyone else is cared for. Often in these situations the women carry on with their daily routines and forget their own health and wellbeing.

Given my familiarity with the resilience of humans in momentous events, I experienced immense challenges with my decision to relocate to Australia. I arrived in Australia as a student with a family. I struggled with the adjustment to be a student, part-time worker, mother, and wife along with identity issues in a new culture. Often my resiliency was tested with events at university, work, and home. In short, both personal and professional experiences highlighted the significance of resiliency of women in adversities, for life to bounce back to normal.

On 24 December 2004, Maldives, the country where I grew up, was one of the nations struck by the so-called 2004 Indian Ocean or Boxing Day Tsunami, one of the worst ever recorded natural disasters in history. I recall it was one of the stressful days in my life, not knowing the situation back at home, where the disaster became known as the December 2004 Tsunami. This event created an opportunity to study women's resiliency in disasters to produce empirical research that could be used by governments and humanitarian agencies to promote greater resilience. In addition, evidence could be used promote the health of women in disasters and, with a flow on effect to the health of families and extending to populations. Familiarity with Maldivian culture and my experience as a colleague and, sometimes, participant in calamitous events provided both motivation and credibility throughout the research process.

Background and Rationale for the Study

Underpinning the significance of this research is an appreciation of the significant role assumed by women in disasters. Although a growing body of evidence examines the impact of disasters, some researchers focus on natural disasters and human health risk, whereas others have explored the relationship of social capital with disasters. The limited research on women and disasters stresses their vulnerability and gender imbalances. Extrapolating from this, one can assume that women's role in disasters

has significant impact on a society that is recovering from a disaster. The following sections expand on this background.

Disasters

Natural disasters are responsible for millions of deaths, and increased health risks persist in the surviving population. The natural disaster epidemiological statistics from a WHO (2005) report stated that from 1990–1999, 2 billion people were affected worldwide as a result of natural or technological disasters with 600,000 deaths, of which 86% were caused by natural disasters. A natural disaster is a huge burden on the affected region and its population as it destroys social and physical infrastructures resulting in death and injury as well as effects of stress, depression and susceptibility (Beaudoin, 2007). The extent and the implications of disasters are often, according to Guidotti (2006), still unfolding almost a year after the event. Guidotti (2006) suggested there is a close connection between natural disasters and human health risk. The affected population faces severe public health consequences with displaced people bearing additional effects such as malnutrition and communicable diseases (Noji, 2005).

Women and Disasters

Women are more adversely affected in disasters. Research on the impact of disasters related to gender differences is limited, according to WHO (2005), but there is some evidence demonstrating that men and women experience different negative health outcomes. This is supported by a review conducted by Norris et al. (2002) of all published literature between 1981 and 2001 on the psychosocial consequences of disasters. That review found a statistically significant gender difference in post disaster distress with female survivors being more adversely affected. The same review also demonstrated that the effects of gender were often greater in populations with other risk factors that could contribute to vulnerability.

The WHO (2005) report suggested that it is not apparent whether gender disparity is due to biological differences between the sexes, or socially determined difference in roles, or because of an interaction of both factors. Nonetheless Gaseer, Dresden, Keeney, and Warren (2004) claim that in emergency health situations during disasters

women are particularly affected when the general health of the population becomes worse. The vulnerability of women is increased because of the socially determined differences of roles between genders and inequalities in accessing resources and decision-making power (World Health Organization, 2005).

Family units in many societies, according to Goodwin, Garret and Galal (2005), are built with role definitions in reference to gender, where women manage the physical resources provided by men and at the same time provide emotional and social resources. In the event of a disaster this traditional role of women in the family is often supplemented with additional roles. In disasters, according to WHO (2005) the traditional gender roles are accentuated significantly where men take the role of securing physical resources for protection of life and women take care of the families. Post-disaster surviving women, according to Felten-Biermann (2006), often have to take on additional roles such as care of the sick or traumatised, and the burden of caring for families of deceased relatives. WHO (2005) noted that the access of women to relief centres is inhibited by cultural norms of a society and the difficulties of leaving home because of added caring responsibilities. This significant change in the care-giver role, putting family needs before their own, results in a decline of their emotional wellbeing and contributes to deteriorating health outcomes for women (WHO 2005).

December 2004 Tsunami

The December 2004 tsunami was one of the worst natural disasters recorded in history with widespread catastrophic consequences. On Sunday morning, 26 December 2004, an earthquake measuring 9.0 on the Richter Scale occurred on the northwest coast of Indonesia (Doocy, Rofi, Moodie, Spring, Bradley, Burnhama, et al., 2007). The seismic shock of the earthquake generated a tsunami, triggering massive waves that devastated coastal regions throughout the Indian Ocean (Haaroon, 2005). A report published by Ministry of Planning and National Development (MPND, 2005a) found the tsunami left a trail of destruction across 12 countries spreading from Indonesia to Somalia in the Red Sea. MPND (2005a) further reported that nearly a quarter of a million people died, hundreds of thousands were homeless, and millions of dollars' worth of damage was caused to property, businesses and infrastructure. In this disaster, according to Carballo et al., (2005), women were at greater risk of death for various

reasons and for every male death there were three female deaths, demonstrating the impact on gender differences. The surviving female population of the December 2004 Tsunami were more vulnerable than other survivors due to a range of social and economic threats (Carballo et al., (2005)). For the Maldives, it was a nationwide calamity, the worst natural disaster in the country's history (Ibrahim & Hameed, 2006a; MPND, 2005a).

The Maldives is an archipelagic state of a narrow chain of about 1,190 small coral islands grouped into 20 administrative atolls that span the equator in the Indian Ocean. The islands of this nation are not more than 1.5 metres above the sea level, and are 820 kilometres in length and 130 kilometres at the widest point, with an area of about 90,000 square kilometres. The country has a narrow-based economy with a dispersed population of 298, 842 scattered among approximately 200 islands over a large geographical area (Ibrahim & Hameed, 2006a; MPND, 2005a). The population is homogenous with a common language, religion and culture. The December 2004 Tsunami hit the Maldives with waves ranging from 1 to 4 metres. One third of the Maldivian population was directly affected (Ibrahim & Hameed, 2006a).

According to Ibrahim and Hameed (2006a) and MPND (2005a) there were fewer deaths in Maldives compared to other affected countries, but the relative impact of the tsunami on the economy and the population was much greater. MPND (2005a) reported that all except nine inhabited islands were partially or completely flooded, with 130 people recorded as dead or missing, of which most were women or children. Some islands had to be completely evacuated with 7% of the population displaced and thousands needing temporary shelters (Ibrahim & Hameed, 2006a). The populations from the severely affected islands were evacuated by boat and moved to neighbouring islands (Chandra, Pandav, & Bhugra, 2006). The cost of damage was estimated to be 62% of the annual gross domestic product (GDP). In the affected communities, houses, personal assets, education and health facilities, and communication and utilities infrastructure were totally destroyed or severely damaged.

Research Question and Objectives

This qualitative research aimed to examine and explore the factors that contributed to Maldivian women's experiences following a disaster.

The research question the study aimed to answer is:

What are the factors that contributed to the experiences of Maldivian women following the December 2004 Tsunami disaster?

The specific objectives of the study are:

1. To explore the factors that enabled tsunami affected women to achieve a sense of personal control in rebuilding their lives.
2. To determine the influences on the tsunami affected women's sense of personal coherence.
3. To ascertain the strategies the tsunami affected women used to achieve a sense of personal connectedness.
4. To examine the attitudes and behaviours of others to the tsunami affected women's experiences.
5. To determine the perception of changes in the tsunami affected women's role during the national recovery process.

Research Methodology

The research used qualitative methods in a discipline-configurative case study design. Case study is an empirical method as stated by Yin (2009, p. 1), used in varied situations to contribute to the existing knowledge of 'individual, group, organizational, social, political and related phenomena'. The case study method is chosen, because the study aimed to understand a complex social phenomenon of a real-life event preserving the holistic and meaningful characteristic of the events (Liamputtong, 2013; Yin, 2009; Yin, 2018) in the period after the December 2004 tsunami and its impacts on women's lives in Maldives. The case study method is similar to those used in exploring history, but in this study the unique strength of the methodology of using the ability to use a variety of evidences such as documents, artefacts, interviews and observations were utilized (Yin, 2009). In order to ascertain a multi-perspective analysis, the views of the women as well as of others who helped them rebuild their lives were considered.

A major and an essential difference of the case study method and other qualitative methods is the role of a theoretical framework or a theory prior to collection of data (Yin, 2009; Yin, 2018). In case study methodology one way of using theory is using an existing theory to inform selection and to make sense of the data (Simons, 2009). In exploring the phenomena for this research study, the concept of resilience was used as a prior theory as it has been used extensively in disaster research and, additionally, it was assumed it may be an important notion in exploring the women's experiences of the December 2004 tsunami. The concept of resilience was used as a theoretical framework to guide representation of the relationship between the variables of the study phenomenon of the Maldivian women's experience of the tsunami. At the same time the concept of resilience was also used as a conceptual framework to guide directions for data collection and analysis. A disciplined-configurative case study design as the preferred choice was because the study aimed to explain the case using the theory of concept of resilience (George & Bennett, 2004).

When facing serious life challenges such as disasters and adverse events, human resilience is understood as the foundation of wellbeing in people and refers to the unexpected ability of humans to gather up adaptive strengths and behavioural competencies. The concept of resilience emerged from early psychiatric literature on children who appeared to be invulnerable to adverse events in life; over the years this term was replaced with resilience. Presently resilience is used in a number of disciplines and is especially applied in the field of disaster management.

Study Setting

The December 2004 tsunami is one of the worst natural disasters recorded in history. In this disaster in all countries for every male death there were three female deaths demonstrating the impact on gender differences. Maldives is one of the countries that was greatly affected by the disaster, with one third of its population affected and 7% displaced for varying periods. The cost of the damage was estimated as 62% of the annual GDP. The tsunami provided an opportunity to investigate the concept of human resilience in women in an adverse context of disasters

The setting for the study was four islands in Maldives selected on the basis of the categorization of very high impact by MPND (2005b) where there was extensive

damage to housing and infrastructure and the population was externally displaced to another island. These four islands were *Raa Kadholhudhoo*, *Thaa Vilifushi*, *Meemu Madifushi* and *Dhaalu Gemendhoo*. Descriptions of these islands are provided in chapter 4.

Data Collection

The methodological approach of case study as stated by Tellis (1997b) provides the opportunity for a multi-perspective analysis by considering the perspective of the main subjects and other relevant groups, and the interactions between them. Hence, the principle participant group for the study was women from four selected islands. The snowball sampling approach was used to access these women. In case study research the researcher often utilizes the perceptions, interpretations, arguments, explanations and prejudices of several groups of stakeholders (Swanborn, 2010). In order to achieve this, data was also collected from groups of people who assisted in rebuilding the lives of these women. These data sources were categorized as Family, Disaster Management Centre, Health Professionals, Voluntary Organizations and the Army. Throughout this thesis the use of capitals will indicate the categorized data sources. Purposive sampling was used to access these groups of people.

Participants thought to be best able to inform the research were invited to participate in the study. As sample size was not pre-determined, the principle of theoretical saturation was applied. Interviews and focus groups were held until saturation was reached, when data reached the ‘point of diminishing returns’ and nothing new was added (Bowen, 2008, p. 140).

The 103 interviews comprised women (20 respondents) Family including host family (20) and partners (13), Volunteers (12), Army (13), National Disaster Management Centre (5), and Health Professionals (20). The interviews were conducted by the researcher in English or Dhivehi (Maldivian local language) if preferred by the interviewee. Each interview was audio taped with permission of the participants. In addition, 531 newspaper clippings were collected as documentary evidence.

Data Analysis

The data was transcribed before analysis. The information that was gathered in Dhivehi was translated into English by the researcher before transcription. As indicated by Esposito (2001) the translation of data before transcription produced the challenge of generating meaning-based translations rather than direct translations. In that the interviews were conducted by the researcher who was proficient in both English and Dhivehi languages with familiarity of the intricacies of the culture, allowed for subjective inferences of terminology and interpretation of the cultural context of words being used.

The transcribed interviews generated a large amount of unstructured text, hence the data analysis was conducted in sequences. Sequence 1 of the analysis was to open code the women's interviews. The open coding of the women's interviews demonstrated that women's experience of the disasters reflected Strauss and Corbin's (1998) theory of conditional/consequential matrix. The data showed that women first thought about themselves, which progressed to thinking of their children, followed by family, island community and host community. Internal and external thoughts interlinked to initiate a sequence of interconnected conditions and consequences, which resulted in how they responded to the disaster and how to rebuild their lives. These domains guided the next sequences of the data analysis.

The Sequence 2 analysis was the evaluation of the women's interviews. The deductive approach of framework analysis was used where data was analysed starting from pre-determined aim and objectives of the study. The framework analysis consisted of interconnecting five stages of familiarization, identifying a thematic framework, indexing, charting and mapping and interpretation. Sequence 2 analysis found the women's experience of the tsunami in December 2004 was understood in four distinct periods, or timelines of events:

1. Tsunami: the panic phase of the disaster.
2. Immediate problems and responses: the first week where the women sought basic survival elements for the family.
3. Intermediate: the first year where the women adapted to changing circumstances.
4. Longer term: the first 5 years where the women created a new life.

The Sequence 3 of the analysis was of interviews of the other groups who assisted the women to rebuild their lives. The key themes from the Sequence 1 analysis were used to drive the analysis. The transcribed interview data text was content analysed for these key themes and any other recurring themes. The Sequence 4 of the analysis was of the 531 newspaper clippings. In order to provide coherence, these documents were coded by timelines identified in Sequence 2 of the analysis and content analysed using the themes from the previous phases of the analysis. The steps in content analysis described in the Sequence 3 analysis were used and the documents reduced as suggested by Yin (2009) by tabulating the frequency of different events. The resultant themes and subthemes were thematically mapped to see the links to the research objectives. The Sequence 5 analysis used the preferred analytical technique of pattern matching logic to build the case study data by constructing an explanation about the case. The cross-case synthesis followed the technique of Yin Yin (2009) to analyse the case study evidence. All the key characteristics of data from all the phases of the analysis were pulled together, mapped and interpreted as a whole (Ritchie & Spencer, 2002). The outputs from the previous phases of the analyses were studied to determine whether any meaningful patterns were emerging (Yin, 2009).

The themes from each analytic sequence was displayed in three separate tables of women, others and documents then systematically searched for key dimensions. The key dimensions were drawn out to map the range and nature of the phenomena. The three tables were examined for cross-case patterns, a process that allowed for a multi-dimensional analysis and for typologies to be created if two or more dimensions in the tables were linked at different points. The case of the experiences of the Maldivian women following the December 2004 tsunami was explained by enlightening these typologies and their associations.

Brief Overview of the Key Findings

Limited empirical evidence is available on women's resiliency in disasters. Control and coherence are fundamental element of connectedness in disaster contexts (Reich, 2006). The study found that women were not able to achieve a sense of personal

control nor attain their drive for coherence, resulting in them not being able to achieve a sense of connectedness with others.

The findings confirm that social capital was an important factor to maintain the women's connections with others in post-disaster rebuilding. These key findings are summarised below to help justify the significance of the study which are discussed in detail in chapters 5 to 8.

Long term Dependency

In the disaster phase when the women were struggling to survive, others thought the women helpless. In the subsequent immediate and intermediate phases, the women continued to feel that there was loss of personal control as they had to relocate, and deal with the dispersal of their families and tensions building with host communities. Although the women were adapting to changed circumstances to create new lives in unsettled environments, others who assisted them assumed the women had regained their personal control as the basic needs of food and shelter were being provided. The help placed the women in a state of dependency. Others who assisted the women undermined the women's natural sense of personal control and believed that the women had bounced back to normal, whereas the women were still struggling to rebuild their lives with future hopes of an independent life

Drive for Cognitive Clarity

In all phases of the disaster the women demonstrated a drive for coherence by constantly seeking explanations or answers. In the disaster and immediate phases, the women were describing the stories of the tsunami. Others who assisted them and the newspapers repeated these stories as narrated by the women. The capture of the women's stories helped to make sense of the events for the affected communities.

In the disaster phase the women did not have any questions but in all the subsequent phases they were seeking coherence by asking questions. In the immediate phase others perceived that they had no questions, although the women defined the questions they had. In the following phase the women tried to get the answers whereas others said the women focused on stating their concerns. In the longer term phase the women

had stopped explicating their need for cognitive clarity, whereas others who assisted them said the women were focused on their unfulfilled needs and future hopes. These observations from the study show that the women's drive for cognitive clarity was weakened by lack of enhanced meaning, direction and understanding by others.

Strategies to Achieve Personal Connectedness

In the rescue efforts during the tsunami phase and the subsequent immediate and intermediate phases the women gathered their immediate and extended families to ensure that established stable bonds were not broken. Others who assisted them reported the same observations. The women participants in this study were relocated to different islands. With their families dispersed widely, most had to build new relationships, which they could not maintain. In the immediate and intermediate phases, the women tried to establish bonds with strangers in the host communities. These initial relationships deteriorated over time as a result of tension that arose between the two communities. The women suffered a significant amount of anxiety as they could not maintain these relationships. As noted earlier, strategies to help the women achieve a sense of personal connectedness were hindered by a lack of information that the women needed to meet their drive for cognitive clarity, coupled with lack of support from social relationships.

Attitude, Behaviours and Role

The women's observations of the attitude and behaviours of others to their experiences were different to the views of others who assisted them. In the tsunami phase the women saw others as being withdrawn, whereas others who assisted them perceived the women as weak, because they were demonstrating emotions of fright more than the males. In the intermediate phase, the women observed negative behaviours impacting on their ability to live peacefully in the host communities, while the others perceived the women to be angry and resentful. When the women were settling into the creation of new lives either in permanent relocations or host communities, they were labelled as victims of the disaster.

The women's perceptions of the changes in their role during the recovery process are also different to the views of the others who assisted to them. The women in this study

are inhabitants of small islands where their typical role is looking after their families' homes and children, but the role of the male is to earn income. In the post-disaster recovery process, the traditional role of women was reversed, with many of them engaged in livelihood activities to earn income.

Significance

The limited literature about the tsunami in the Maldives is mainly descriptive in nature with minimal focus on the perceptions and experiences of the affected people. There has been no research on post-tsunami surviving women in the Maldives. This present research is driven by the conceptual framework of Reich (2006) with three core principles of control, coherence and connectedness pertaining to human resilience when encountered with stressors related to disasters. A key finding emerging from the study was the importance of informal groups such as voluntary organisations in island communities to develop social networks that preserve the sense of control and coherence that help to build and maintain the quality of relationships that could assist strategies to achieve sense of connectedness in future disasters. A distinctive feature of resilient communities is connectivity of informal and formal relationships of social capital. This thesis proposes specific recommendations aimed at strengthening the resilience of women.

This study has three applications of significance, with the first being the role of community organisations. Recognising the multiple stressors faced by women and others in disasters, the study acknowledges the efforts made to face these challenges and proposes recommendations at a community level on how best to improve the voice of women and build social capital.

The second level of significance relates to government-level disaster response from the perspective of a small island nation. The coordination between policy and practice is often ineffective, and the research puts forward recommendations for governments to effectively coordinate policies that would foster informal and formal relationships in communities.

Finally, this study is significant as the researcher is a Maldivian female researching the experiences of Maldivian women. There is a lack of research on disasters conducted by women in their own cultural contexts. Having gained a greater appreciation of the range of factors that affect the resiliency of women, there is responsibility to share the findings with other researchers interested in this area of inquiry. The study aims to add to the existing body of knowledge in disaster management as there is limited published literature specifically on understanding the experiences of women who survive a disaster.

Thesis Overview

This thesis is presented in eight chapters.

This introductory chapter has provided background information on the research topic including the theoretical and conceptual framework of the study. The aims and objectives, the study design and the significance of the study areas were included. Key findings have been summarised along with their significance.

Chapter 2 provides the background and context to the study setting. Maldives is a small and isolated island nation, little known with limited published literature. The information provided is to offer the reader a context for the study setting. The chapter commences with an overview of the geographical, demographic, cultural and social aspects of the Maldives. The final section focuses on the December 2004 tsunami and its impact on the Maldives.

Chapter 3 reviews the literature relevant to the area of the study, supporting what the study aims to answer. The review consists of a number of areas of concern. The first part explores natural disasters, examines the responses to disasters, and outlines the importance of social capital on disaster issues. The second part reports on the effects of disasters on women. The final part of the review is of the December 2004 tsunami. This section looks at the effect of tsunami on women. It further reviews the publications on the tsunami specific to the Maldives.

Chapter 4 describes the research methodology and the study design. The chapter commences with an introduction to the qualitative research approach and defines the theoretical underpinning and the rationale for the study. A detailed description of the conceptual and methodological framework follows. The methodology of the study is then described. The collection and analysis of data is explained. Data collection methods and tools are described with description of strategies to ensure ethical research practices.

Chapter 5 describes the findings of Sequence 1 and Sequence 2 analyses of the interviews of the women who are the key informants of the study. The results are presented as domains, which guided the subsequent phases of data analysis. The next section of the chapter focuses on the findings from the Sequence 2 analysis which used the domains from Sequence 1 and the results of the women's interviews to the analysis and presentation of the findings.

Chapter 6 describes the findings of the Sequence 3 analysis of interviews of groups who assisted the women in rebuilding their lives. The groups are Family including husbands and the host families, Volunteers, Health Professionals, Army and National Disaster Management Centre (NDMC). The timelines identified from the Sequence 2 analysis guided the analysis in this chapter.

Chapter 7 describes the findings of the Sequence 4 and Sequence 5 analyses. The first section of the chapter focuses on the Sequence 4 analysis of the documentary data enquiry. The findings are presented in the timelines identified in the Sequence 2 analysis. The next section of the chapter focuses on the Sequence 5 analysis, the final analysis that matches the findings from all four phases of analysis to look for cross-case patterns. The findings of the cross-case patterns are presented under each research objective the study.

Chapter 8, the concluding chapter, synthesizes findings of the study and responds to each research objective. This includes the proposal of a model for enhancing resilience in women in disasters, and recommendations for both policy and practice at community levels with a specific focus on small island nations. Suggestions for future research with significance and limitations of the study are also discussed.

Chapter Two: Background and Context

Introduction

The purpose of this chapter is to present context and to provide a perspective to the reader on the study setting. Maldives is a small island country sheltered in the Indian Ocean, little known with limited published literature. The chapter commences with an overview of the geographical aspects of the country. Then the cultural and social characteristics of the country are described. The final part focuses on the December 2004 tsunami and its impact on the Maldives.

Maldives

Geography

Maldives is a nation of small islands in the Indian Ocean (Figure 1). It is a chain of low-lying islands grouped into natural coral atolls (Latheefa, Shafia, & Shafeega, 2011). The islands are in a north to south direction on the Laccadives Chago submarine ridge that extends into the central Indian Ocean from the south-west coast of the Indian subcontinent (Latheefa et al., 2011). The Maldives archipelago spans the equator over 820 kilometres in length, over an area of 115,300 square kilometres with over 90% being the sea (Department of National Planning, 2014; Latheefa et al., 2011). The country's 26 atoll consists of 1,192 islands, of which, 188 are inhabited (Department of National Planning, 2014). The country faces unequivocal geographical challenges due to its high spread of small land masses which consequently causes the population to be scattered, and the low elevation of the islands. (Global Facility for Disaster Reduction and Recovery, 2015). Despite these geographical challenges, the uniting strength of the country is language and religion (Fulu, 2007b). Maldivians speak a single language and share a scheme of ideals based on the principles of Islam.

The shapes of the islands can vary from small sparsely vegetated sandbanks to extended strip islands. Storm ridges are found at seaward edges of many islands, but a few have a swampy depression at the centre. Maldives is estimated to have 300 square kilometres of total land area of which only 33 islands have dry land of over one square kilometre. The islands are flat, with low altitudes of just 1.5 metres above the sea level with no hills, mountains or rivers, instead are made up of coconut palm fringes with white sandy beaches and crystal clear lagoons, making it a popular tourist destination (Latheefa et al., 2011).

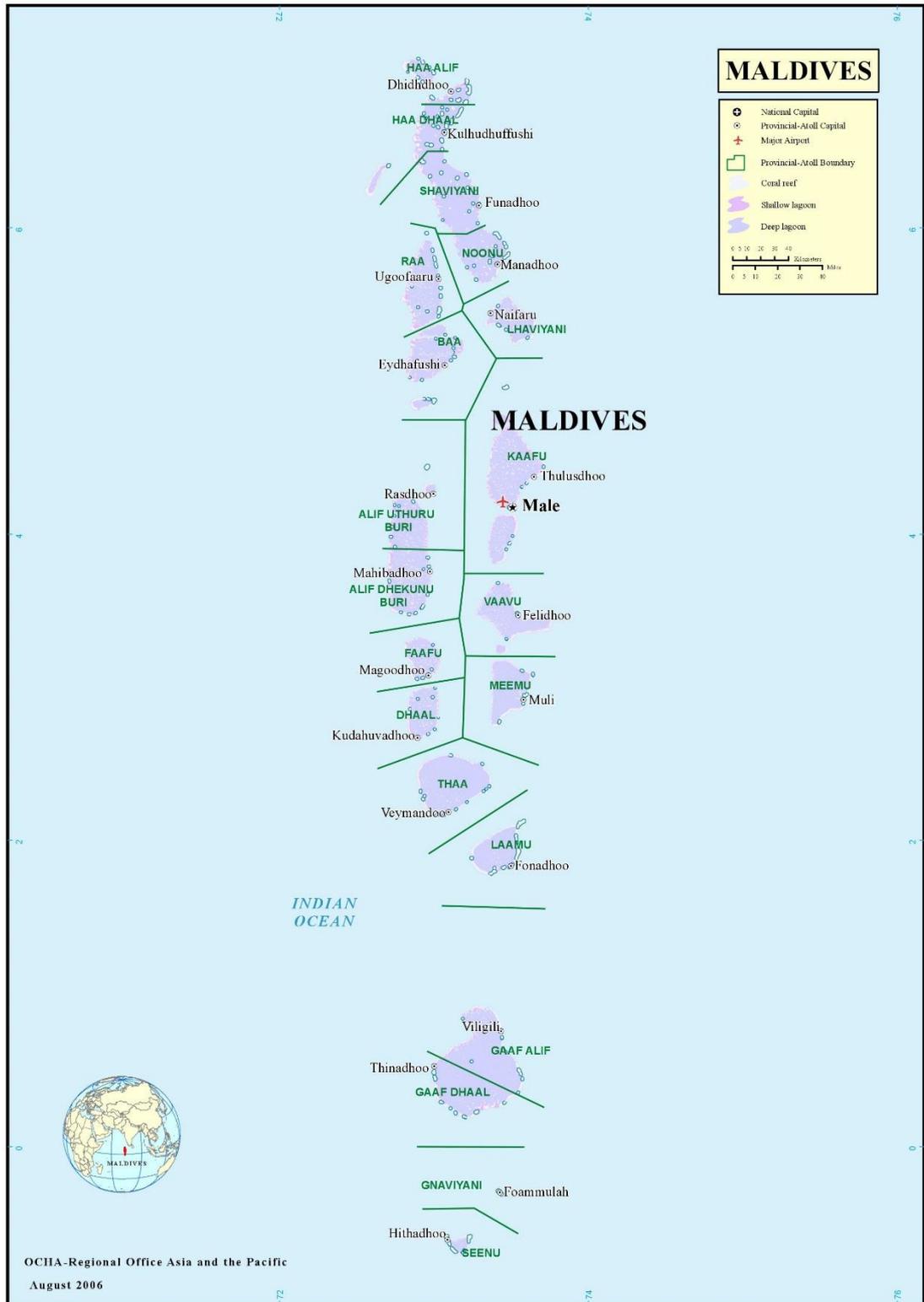


Figure 1. National Reference Map of Maldives. Adapted from (UN Office for Coordination of Humanitarian Affairs, 2006).

The climate of Maldives is warm and humid, with two dominant monsoons. The south-west monsoon is rainy and is from May to November. The north-east monsoon is from January to March and is usually dry. The seasonal wind blows largely from either of these two directions. The relative humidity varies from 71% to 84%. The Maldives experiences swells and waves conditioned by the prevailing biannual monsoon wind directions and is strongest in the south-west monsoon period from April to July. In this strong wind season, there has been reports of swells north of the equator with heights of two to three metres. (Latheefa et al., 2011).

The marine environment is the main ecological environment of Maldives consisting of lagoons and reefs inside the atolls. The water depths vary considerably with lagoon waters inside the atolls varying from 30–80 metres and opens into the Indian Ocean. The key aspects of the Maldivian ecosystem are white sandy beaches and the vegetation of the island periphery. They provide vital protection for housing and infrastructure on the shores of the islands. However, one extremely serious environmental issue in the Maldives is beach erosion. The process of coastal erosion and accretion is complex with links to oceanographic, climatic, geological, biological and terrestrial practices with human interferences affecting growth and stability of reefs and island structures (Latheefa et al., 2011).

The country is vulnerable to the impacts of predicted climate change such as rising sea levels due to its low-lying nature. The environmental threats to the islands are seasonal storms, high tides and potential risks of sea level rise. The endangers to human health and security and the imperils to the existence of the islands are coastal erosions and flooding. Recognizing this, the government of Maldives has always placed environmental issues high on its development agenda (Latheefa et al., 2011).

People

The people of Maldives are of Aryan origin (Maumoon, 2002). There is not much known about the early settlers, but it is understood that before the sixth century people had settled in Maldives (Heyerdahl, 1986). Settlers were from neighbouring countries of Sri Lanka and India, with some from faraway countries who arrived as shipwreck survivors. This is clear as the first historical records of Maldives were obtained from travellers from Sri Lanka, Greece, India, China, Middle East and Europe (Helvikiva,

2001). Using the linguistic and anthropological records from Lakshadweep and coast of Kerala Maloney (1980), uncovered that there was Maldivian historical links to Tamil ethnicity. Maumoon (2002) writes that Professor Stanley Gardiner, who studied the physical characteristics of Maldivians, concluded that they are Indo-Aryan with an admixture of African, Arab and Indonesian blood. The registered population of Maldives as of 20 September, 2014, was 334,023 with an average annual growth rate of 1.65% (National Bureau of Statistics, 2017). The population of Maldives has grown steadily with a 57% increase over the last 25 years. The population growth of Maldives has far more serious consequences than many other countries as less than 1% of the total area of the country is suitable for human dwelling. The population of one third of the inhabited islands is less than 500 and populations is less than 1,000 people in 70% of the inhabited islands. This extremely low population density makes the country exclusive amongst the island states (World Bank, 2006). The high unit cost of delivering services and of public administration creates countless challenges for development as there is barely any scope to generate economies of scale (World Bank, 2006).

The country has had a startling growth in settlement in the capital with huge environmental impacts as a result of heavy internal migration in search of better livelihood, education and health services. One third of the population lives in the capital Malé, which has an area of 1.8 square kilometres and about half of the island is reclaimed land. The entire island of Malé consist of built up areas and is heavily urbanised. The rest of the population is dispersed over the 188 inhabited islands. The population of Maldives is relatively young with almost 37 percent under the age of 19 (National Bureau of Statistics, 2017). The female to male ratio remains more or less equal. The human development trends of the country rank the highest amongst the Asia-Pacific countries. These demographic shifts are a major concern and a cause of angst among young adults, their families as well as the government. The youth unemployment is increasing within a population of low rate of labour force participation, especially for women. One of the biggest challenges for the delivery of basic services is the inaccessibility and remoteness of the islands. The population growth in the capital island has resulted in issues of overcrowding, increase in cost of living and numerous social problems such as substance abuse and gang violence. (Latheefa et al., 2011).

Governance and administration

In historical accounts from the time Maldives converted to Islam, it has been a Sultanate with governance of the country by various advisers and ministers. A constitution was written in 1932 and the Sultan was subject to abide it. In the 1950's the Maldivian voted for a republic with a president as the head of state, but the democracy was short lived and was violently overthrown after 7 months. The country achieved independence in 1965. Three years after independence, Maldives became a republic for the second time and remains so today. The country is a democratic nation with a unicameral parliament with a president as head of the government and the state. People elect the president along with a vice-president for a maximum of two 5-year terms. The cabinet is appointed by the president and approved by the parliament (Commonwealth Local Government Forum, 2013).

The first president of the republic served for 10 years. The succeeding president governed and dictated the political scene for more 30 years by being elected for six successive terms in single party polls. After riots in the capital city in mid-2004 the government expanded political freedom and initiated strategies for a more representative political system. Political parties were legalised in 2005. A new constitution was ratified in 2006 and the first multi-candidate, multi-party system elections were held in October of the same year (Quinn, 2011).

The first multi-party election in 2008 led to significant changes in the legislative and administrative structure of the government. A local governance system was established to strengthen local democracy to address the economic and social developments issues that existed from the preceding highly centralised government. A two-fold program of regionalisation and decentralisation was introduced. The Local Government Authority Department was established within the Ministry of Home Affairs with responsibility for a two-tiered local government. The island council and city councils are the levels, and both are accountable to an atoll council. There are 20 atoll councils, two city councils and 186 island councils. A women's development committee plays an advisory role on gender issues in each island council.(Commonwealth Local Government Forum, 2013).

In early 2012, a change in political power with the resignation of the president halted the provincializing process. A second multi-party election was held in 2013 with the opposition party coming into power resulting in tremendous political change in the country during a short period of time. The decentralisation and regionalisation form of governance was changed to a different system but was abolished within two years. Nevertheless, legislation that formalises governance arrangements has been decreed. (UNICEF, 2013)

Socio-cultural aspects

The island geography of the country speaks the culture of Maldives. In the past the main economic activity of island life is fisheries. The roles and expectations of genders in Maldives has emerged from the economic needs of the people. In general women are expected to play a domestic role while men occupy the public and political spheres. The preservation of the unique Maldivian culture and social structure of values and beliefs is a result of the relative isolation of the country. The vital dynamics that shape the Maldivian culture, traditions and way of life is religion and language. (Quinn, 2011).

Maldivian archaeological evidence suggests that before the conversion to Islam Hinduism, Buddhism were practiced with some writers reporting that even earlier other forms of worship were practised (Heyerdahl, 1986; Maumoon, 2002). The pre-Islamic history of Maldives is practically unknown for the lack of evidence, and much of its history is not known to the outside world. The only contacts with the world were through travellers who mostly were sea traders. Islam came to the country through these early travellers. The entire Maldives converted to Islam in 1155 with a decree from the king. Since then the rights of Islam such as ablutions, prayer times, pilgrimages to Mecca and Qur'an recital has been adhered to. The Islamic law and moral codes were introduced much later (Helvikiva, 2001).

In Maldives, Islam is an integral part and is entwined into several aspects of daily life, especially in family related issues (Fulu, 2007b). The constitution states that one has to be a Muslim to be a citizen of Maldives. Religious unity is often a concept that is linked with national unity and the government emphasises the importance of preserving and promoting religious harmony within the country. The weight on

religious distinctiveness is the basis of the political and legal framework of the country and religious homogeneity is believed to be an important constituent in assuring national unity. The pre-Islamic tribal traditions started spreading when increasing number of Maldivians returned from studying at overseas strict Islamic schools. This resulted in girls and women being denied of schooling and working outside their homes. Historically the country prided itself on its liberalism, but in recent years there has been a spread of more conservative Islamic views (Fulu, 2007b), with an increase in the number of women wearing veils, including the *niqab*, which may be considered a sign of growing Islamic extremism. Islam was the driver for unity in Maldives, but presently it has been the one of the causes of societal rifts.

In the olden days the family units are typically the traditional extended families and tight social networks characterised Maldivian society. The communal values of the society increased harmony, reduced crime and destitution. But today the basic congruence of the society has changed from extended families to nuclear families with a typical household being a married couple and their children. The unmarried adults choose to live with parents instead of moving out to shared or self-accommodation. Women do not take their husband's names after marriage but maintain their maiden names. Special sections have always been reserved for women in religious communal places such as mosques. However, strict segregation of women and wearing of veil were not common practice until recently.

Dhivehi is the official language of Maldives and is spoken throughout the country with dialectical differences amongst a few of the southernmost atolls. Other than Maldives, *Dhivehi* is spoken in the island of Minicoy in India but the language is called Mahl or Mahal (Maumoon, 2002). The *Dhivehi* language has a unique script containing twenty-four and is written from right to left. After conversion to Islam the *Dhivehi* language has significant influence of Persian and Arabic languages. Religious and judicial terms were borrowed from Arabic. In the 1960s the education system embraced English medium followed by advent of tourism and an increase in Maldivians studying abroad in Western countries. These societal swings instigated an influence of English language in the *Dhivehi* language.

Economy

The World Bank ranks Maldives as a lower middle-income country (Quinn, 2011). The basis of the economy of the country is natural resources, dominated by tourism and fisheries, with significant variations in the economies and lifestyles of different islands (Fulu, 2007b). Some islands depend exclusively on fishing for their livelihoods, while others cultivate vegetable and fruits or specialise in crafts. Tourism is the main contributor to the GDP with 90% of the government tax revenue from tourism related activities (Quinn, 2011). Fishing contributes to a smaller proportion of the GDP growth, but it is an important provider to the economy as it offers food and employment in many of the atolls (Quinn, 2011). Agriculture and manufacturing is the smallest sector of the economy (Quinn, 2011). However, the cultivation of fruits and vegetable for domestic use and sale to the capital provides employment for 5% percent of the total population of which 8% are women (Fulu, 2007b).

Poverty is low in Maldives, but there are considerable amount of various differences and disparities between Malé and the atolls, and within the atolls in terms of access to services and infrastructure such as health, water and sanitation (Patel, 2006). The issues of poverty are often associated with the remoteness of the islands and inadequacy of services in the atolls. (Department of National Planning, 2010). In comparison to the atolls, income rates are substantially greater in Malé. Economic and social infrastructure has developed mainly in Malé rather than the atolls. This inequality has resulted in fewer employment prospects with limited opportunities for livelihood activities in the atolls. The disparities between the atolls and Malé have led to an increase in internal migration which subsequently decreased the development prospects in the atolls and worsened the living conditions in Malé, deepening urban poverty.

The economic growth and advancements in human development indicators in Maldives have not transformed into sufficient skill development in the Maldivian population (Patel, 2006). The current unemployment percentage of the total labour force is estimated as 5% (World Bank, 2018). The significant skill shortage is met by the import of migrant workers with an expatriate labour force representing nearly 25% of the country's population with just under 80% of Maldivian employment (Patel, 2006; Quinn, 2011). Expatriate migrant workers are noticeable in the health education

and tourism sectors. The labour market is underrepresented by women with considerable gender imbalances. The labour force participation rate of women is 44.9% whereas the male participation rate is 85.1%, indicating that women in that labour market is significantly lower in comparison to men (World Economic Forum, 2018). The labour market has also the challenge of absorbing the growing number of school leavers, with the result that youth unemployment is a significant social challenge (Quinn, 2011).

Women

The gender roles and responsibilities are distinct within the specific cultural context of Maldives. The South Asian heritage combined with Islamic traditions have played an influential role in conditioning and shaping Maldivian societal behaviour. At an early age the social behaviour of boys and girls are influenced by the imbalanced gender relations with a resultant culture of protectiveness observed in early socialisation. Girls are encouraged to stay at home and present behaviours such as shyness and subservience. Outgoing, being forward and self-confident are characters encouraged for boys. (Quinn, 2011).

In this protective culture, however, women have acted in significant role in politics and society. Women's status in the society has been high. Early Arabic records note that before Maldives converted to Islam, the country was once ruled by a queen because of matrilineal inheritance. The Maldivian constitution states that women are equal under the law but limits their role by stating that women cannot be a president or a religious leader. In marriages there is an expectation for the women to take the responsibility of the domestic household while men take the lead in public and political domains. The domestic burden for women is excessive due to large extended family households, predominantly in the atolls. It is usual for the male heads of household and male family members to make the decisions. The most significant social unit in Maldivian societies are the family, however the divorce rates are the highest in the world and it carries no stigma (Fulu, 2007b).

Access to maternal and child health services and family planning has improved significantly, nevertheless there is an unmet need for contraception for married women and unwanted pregnancies in unmarried youth. Malnutrition is a leading factor for

complications and mortality of women during childbirth as well as the cause for underweight babies. The unavailability of affordable transport to referral hospitals in atolls and the capital in the case of complications experienced during birth also puts women at risk during complicated pregnancies. Other challenges faced by women during pregnancy include domestic violence, low financial security, lack of assistance from other women due to them working outside the islands, and the role of the women as caretaker of children and the elderly (Quinn, 2011).

The overall literacy rate of Maldives is 98.61% with female literacy at 98.69% (UNESCO, 2014). Girls have a higher primary and secondary school enrolment rate. Cultural outlooks on women living away from home impact on the number of female students studying away from home islands and abroad, subsequently impacting the rate of females with tertiary qualifications (Quinn, 2011). In the political arena there is under-representation of women as reflected by IPU's (2018) reported rate of 5.88% of seats held by the women in parliament. Women are also significantly under-represented at the local level in the Atoll and Island Councils too (Quinn, 2011).

In the past, women played an important role in contributing to the economy of the country (Quinn, 2011). Both genders had equal roles in the fishing industry with men catching the fish while the women processed it (Fulu, 2007b). Additionally, women were the main producers of materials used for housing such as rope and weaved thatch (Quinn, 2011). The introduction of tourism and industrialisation of the fishing industry reduced these roles of women in the islands, and the cultural hinderances impact the opportunities for women to look for employment in resorts and on the industrial islands. Although tourism is the largest single contributor to the Maldivian economy, only 4% of its employees are women as the work is often judged to be not appropriate with social and cultural restrictions on women working away in other islands (Fulu, 2007b).

In the past decade the labour force participation rate for women has increased, yet the gender disparity with men is substantial. The participation in the labour force varies amongst the atolls and women are mainly engaged in home-based livelihood activities (Quinn, 2011). Even though the economic activity rates of women are increasing, about 47% of the female population is economically inactive (National Bureau of

Statistics, 2014). The informal sector is dominated by women with almost 90% working as self-employed home base workers (Quinn, 2011). The government has the largest workforce in Maldives with 62% males and 38% females. Women work mainly in the education, health and welfare sectors, whereas men lead the services sector and are often in senior roles of the public service (Quinn, 2011). Even though there has been a rapid growth in women participating in the labour force, the female unemployment rate is three times higher than the males.

The Tsunami of December 2004

The December 2004 tsunami was triggered by an undersea earthquake that measured 9.2 on the Richter scale, and occurred on Sunday morning, 26 December 2004 (Doocy, Rofi, Moodie, Spring, Bradley, Burnham, et al., 2007). Lay et al. (2005) describes this as the largest seismic event on earth for more than 40 years. According to Sukma (2006) this event is the biggest natural disaster the world has encountered in the last 60 years. It occurred off the west coast of Sumatra, Indonesia and ruptured approximately 1,300 kilometres of the fault boundary between the Indo-Australian plate lifting the sea bed by 5 metres (Athukorala, 2012). The seismic shock of the split after the rupture generated a tsunami in an east-west direction, sending giant waves with speeds up to 1,000 kilometres an hour towards the Sumatra coast and the open seas in the Bay of Bengal (Athukorala, 2012; Jayasuriya & McCawley, 2010).

The land area closest to the epicentre of the earthquake, Aceh Province in Indonesia, was the hardest hit (Athukorala, 2012). The earthquake caused much local damage to the largest nearby provincial town of Banda Aceh and thousands of people rushed to the streets (Jayasuriya & McCawley, 2010). After the earthquake people were organising immediate assistance, while giant shock waves were spreading outwards from the epicentre and they had no idea that a tsunami was on its way (Jayasuriya & McCawley, 2010). The tsunami hit the west of coast of Aceh approximately 15 minutes after its eruption (Athukorala, 2012). At first the water retreated as if the low tide was coming in followed by a series of waves surging forward as if the tide was coming back in (Jayasuriya & McCawley, 2010).

The astonishing surge of an indescribable tide with tremendous strength swept up the streets of Banda Aceh pushing, sweeping and crushing all that lay before it (Jayasuriya

& McCawley, 2010). This was the beginning and the tsunami arrived as a series of waves, which lasted about thirty minutes (Jayasuriya & McCawley, 2010). During the next few hours after the destruction in Banda Aceh a great natural disaster unfolded across Asia as the tsunami stretched its arc and continued west, hitting the coastal areas throughout the Indian Ocean (Athukorala, 2012). The next worst affected country was Sri Lanka as there was no other land mass between it and the epicentre. The tsunami left a trail of destruction across 12 countries spreading from Indonesia to Somalia in the Red Sea: Indonesia, Malaysia, Thailand, Myanmar, India, Sri Lanka, Maldives, Kenya, Seychelles, Somalia, Tanzania and Madagascar (MPND, 2005a). There was very little time for the countries to act and very little that they could do (Jayasuriya & McCawley, 2010) because the affected countries were unprepared (Athukorala, 2012).

The death toll of the disaster was about 226,000 with Aceh province accounting for over 70 percent (Athukorala, 2012). According to Sukma (2006) mostly children and women lost their lives. The displaced were more than 2.5 million, with Sri Lanka accounting for over 45% (Athukorala, 2012). The damage caused to infrastructure, houses and other property was over US\$10 billion (Jayasuriya & McCawley, 2010). The tsunami is considered as the severest natural disaster in terms of the number of deaths and displaced people (Athukorala, 2012).

Maldives and the tsunami

Impact

The tsunami reached the Maldives at 9.23am, approximately three and half hours after the initial earthquake (MPND, 2005a). Tidal waves ranging from 1.2 metres to 4.2 metres were reported in all parts of the country (World Bank, 2006). In Maldives the tsunami did not build up into a large water obstruction that hit larger land masses, but instead the pressure wave passed between and over the islands with limited obstacles (Patel, 2006). Seven percent of the population was affected with the displaced people from their own islands being approximately 12,000, while another 8,500 people were relocated to households in their own islands (World Bank, 2006). A report by UNDP (2006) stated that the entire population of the about three million people of this cohesive community was touched by this unprecedented disaster. The injured were more than 1,300 people, 83 were confirmed dead with another 25 missing (World

Bank, 2006). All but nine inhabited islands were partially or totally flooded, with a third of the population affected (MPND, 2005a).

Although the death toll was relatively small, Maldives experienced a national disaster: as only eight of the 198 inhabited islands were not affected by the tsunami (Fulu, 2007b). Fifty-six islands endured major physical damage, 14 were completely destroyed and had to be evacuated, and four islands were rendered permanently uninhabitable (MPND, 2005a; World Bank, 2006). Severe damage was caused to infrastructure, water and sanitation and electricity infrastructure. The freshwater layer of many islands was eroded with salinization of soil causing significant damage to agricultural crops and trees. The total damage for the Maldives was estimated by World Bank (2006) as US\$470 million which is, according to UNDP (2006), 62% of the GDP compared to 3% to 5% in other tsunami affected countries. The impact of the tsunami on Maldives was relatively low in terms of loss of human lives, but its national economy was hit much harder than any other affected country (Patel, 2006; UNDP, 2006)

Response

Despite the years of concern about climate change and rising sea levels, the Maldives was unprepared for a response to a disaster of this scale. There was no natural disaster policy, institutional framework or disaster management expertise (UNDP, 2006). However, the government of Maldives acted quickly, organizing a dynamic relief and rehabilitation task with support from UN agencies, NGOs, the private sector, civil society and other development and military associates (UNDP, 2006; World Bank, 2006).

Within hours of the tsunami the government of Maldives assembled a Ministerial task force. The populations from the severely affected islands were evacuated by boat and moved to neighbouring islands (Chandra et al., 2006). Within days of the disaster the task force established the National Disaster Management Centre (NDMC) under the Ministry of Defence (Patel, 2006). The overall relief efforts were coordinated by the Ministry of Defence while the Ministry of Finance and Treasury played the lead role in coordinating donor assistance (Patel, 2006; World Bank, 2006).

The geographical distribution of the islands is always a major challenge to the Maldives, and with the tsunami most of the transport infrastructure was lost with damaged airports, harbours, jetties and wrecked boats. The capacity for community response was not affected as there was limited loss of lives. The island residents were used to being self-reliant and food stock from local shops were used to feed the people until help arrived (Patel, 2006). The affected people were supported by others who were not affected. They acted as host families by offering food, clothes and shelter. Despite the challenges, the relief response of the country was remarkably efficient. Emergency food, water and medicines reached vulnerable people in a timely manner. Importance was given to prevent communicable diseases by creating sanitation facilities which ensued no outbreaks and no deaths other than the tsunami related ones. Schools reopened with minimal delay and temporary shelters were constructed for displaced people.

The islands in Maldives have unique characteristics with strong community identities. Different and innovative solutions materialized for creating temporary shelters for the displaced people. In some islands, large dormitory style temporary accommodation was built with shared sleeping areas and toilets with meals from a central kitchen. This solution only increased the contribution to the dependency felt by the displaced communities. Most of the affected people were unhappy with the sharing facilities and wished to be able to cook their own meals. Subsequently, this arrangement was superseded with three-room units, housing one family to each room with individual toilets and cooking facilities. On other islands, host families willingly accepted displaced people in their homes but became an unacceptable burden when the situation looked like it would continue for months or years. Innovative solutions such as construction of additional rooms in the compounds of host households relieved the short term overcrowding issues. The government also provided basic food supplies to the host families as an incentive. The fragmented geographic nature of Maldives has posed an enormous challenge to the recovery effort. Despite the difficulties, work progressed rapidly and much was achieved in the four or five years after the tsunami (H. Hussain, personal communication, February 01, 2009).

Post-Tsunami Maldives

Soon after the tsunami the NDMC was created arbitrarily by a presidential decree to coordinate the recovery process of the relief efforts (Thaufeeg, 2013). In the post-

tsunami recovery months, the government added the mandate of disaster preparedness and risk reduction to NDMC (Thaufeeg, 2013). NDMC is under the organisational structure of Ministry of Defence and National Security. NDMC is a coordinating body responsible for response, recovery and disaster risk reduction, while the armed forces is the response force during disaster related activities (Moosa, 2014; Thaufeeg, 2013).

NDMC continued its work without a legal framework and in 2013 a draft bill was drawn up for the Disaster Management Act and was in the Attorney General's office for validation (Thaufeeg, 2013). This same year NDMC undertook the task of developing a framework for a National Emergency Operational Plan (NEOP) (Thaufeeg, 2013). The draft bill was gazetted as the Disaster Management Act 28/2015 in September 2015 stipulating the basic principles governing disaster management in Maldives. Three years on, in December 2018, the National Disaster Management Authority (NDMA) was established as per the Act. The focus of NDMA is a holistic approach of hazard identification and mitigation, community preparedness, integrated response efforts and recovery, within a risk management context to address issues of vulnerability.

NEOP was completed and ratified in 2018 and the next task stipulated by the act for developing the National Disaster Management Plan was initiated (Shaufa, 2018). At local island level the Decentralisation Act mandates the island councils and the Local Government Authority to have a substantial stake in disaster management (Thaufeeg, 2013). The disaster risk reduction activities are supported by the national organisation of Maldivian Red Crescent (Thaufeeg, 2013). In addition, the United Country programs offer funding for such activities (Thaufeeg, 2013).

In the World Disaster Reduction Conference is 2005, the UN General Assembly endorsed the Hyogo Framework for Action (HFA) on building resilience of nations and communities to disasters. Since the HFA inception, Maldives has been working to achieve its goals. Consideration of disaster risks has been integrated in the Government National Development Plan (Inayath, 2015; Moosa, 2014; Shaufa, 2018; Thaufeeg, 2013). NDMC has been working towards disaster preparedness and resilience after recovering from the tsunami, working with local and international partners. Projects have been conducted to enhance the community capacity for disaster response,

strengthen early warning systems and enhance capacity in maintaining disaster statistics (Shaufa, 2018).

Generally, the Maldives are frequently affected by regular low impact seasonal events of monsoonal flooding, coastal erosion, salt water intrusion and intense sea surges (Shaufa, 2018). The most frequent hazard to the Maldives are storms (Moosa, 2014; Thaufeeg, 2013). Floods are annual occurrences but records are not maintained unless the situation escalates to a national crisis level (Thaufeeg, (Thaufeeg, 2013). The storms are destructive due to strong winds and storm tides, which are catastrophic to low-lying flat coastal islands of Maldives (Moosa, 2014). Following the tsunami, Maldives has encountered increased salinity of fresh water during these general natural hazards and in the yearly dry season the country has faced water shortages (Thaufeeg, 2013).

In the years following the tsunami no major disaster has been reported. However, the disasters that have been classed as national emergencies have been recorded. In May 2007, coastal flooding occurred as a result of swells of 3 metres to 4.5 metres that hit around 68 islands in 16 atolls with no human fatalities (Inayath, 2015). Over 1,600 people were evacuated from their homes, and 33 islands reported saltwater intrusion causing significant damage to crops in agricultural farms and home gardens, and vegetation. This flooding was followed by tropical cyclone Nilam in October 2012, which affected 33,826 people from 51 islands and caused an estimated US\$133,090 in damage (Inayath, 2015). The next national calamity was in December 2014. A 10-day water crisis affected the capital city Malé following a fire outbreak in the city's water supply plant, causing a total disruption to the water supply (Inayath, 2015). A national disaster management operational plan was instigated with both public and private companies distributing safe drinking water. The last reported crisis was in November 2015 in the southern-most atoll in Maldives. The atoll was hit by severe flooding after torrential rainfall. About 297 houses were flooded with an estimated loss of US\$300,000 (Inayath, 2015)

Chapter Summary

This chapter has described the study setting to contextualise the findings that follow. It provided information on the geography, people, governance and administration,

socio-cultural aspects, economy and the women of Maldives. The people of the country are united by bonds of a common language and religion. The relative isolation and the lack of colonial influence have allowed the country to sustain its unique culture and traditions. Traditionally, fisheries was the main economic activity but today tourism is the largest contributor to the economy. Women of Maldives have specific gender roles and responsibilities within the cultural context of the country. The impact of the December 2004 tsunami on the Maldives was described, with an overview of post-tsunami actions taken by the government to prepare for future disasters. Chapter 3 reviews the literature related to disasters, women, resilience and the tsunami.

Chapter Three: Literature Review

Introduction

This chapter reviews the literature relevant to the area of the study, supporting what the study aims to answer. The first part reviews natural disasters, responses to disasters and the importance of social capital on disaster issues. The second part reviews the literature relating to the effects of disasters on women. Part 3 presents a review of literature on resilience. The final part of the review looks at publications specific to the impact of the December 2004 tsunami on women and Maldives.

Disasters

Disasters are global occurrences. A disaster could be a natural disaster such as floods, hurricanes or earthquakes, or a nuclear, industrial or transportation accident, or even a shooting or a terrorist attack (Norris et al., 2002). Historical disasters such as the destruction of the New York Trade Centre, the December 2004 tsunami, Hurricane Katrina, and tragedies that result from war and infectious outbreaks demonstrate the worldwide occurrences of such events (Reich, 2006). Often, as stated by Bonanno, Brewin, Kaniasty, and Greca (2010) disasters are sudden and swift natural or man-made events that cause extensive damage, adversity or loss of lives in one or more segments of the society, taking years to recover. In the last 40 years the incidence, scale and the impacts of disasters have increased (Bermejo, 2006). The commonality of these various events is the potential of affecting numerous people at the same time, often claiming lives of many, resulting in various stressors such as threats to life and physical integrity, experience of death and dying, loss and bereavement, with social and community interruptions over a substantial geographical range (Bonanno et al., 2010; Norris et al., 2002). Briere and Elliot (2000) state that disasters are significantly stressful experiences that have a negative impact on large populations. According to Collins (2018), and Khalili, Harre, and Morley (2018) such calamitous events cause indefinable environmental, social and economic disruptions, which impact the paths of survivability of the affected people and their later quality of life.

The impact of disasters is significant with physical, social and economic effects (Mutch & Marlowe, 2013). These effects consist of two aspects (Bonanno et al., 2010; Rao, 2006). Rao (2006) describes it as the attributes of the event and the perception of

the event. The attributes of the event are further explained as features such as the nature of the event, the proportion of the population affected and the extent of the damages (Rao, 2006). The perception of the event is portrayed as the predictability of the event, the rapidity and involvement, the extent of personal loss as well as the rapidity of the rescue, relief and psychosocial support (Rao, 2006). The impacts of the disaster explained by Bonanno et al. (2010) is specifically in relation to health. The first facet is the physical effect and injury; the second is stress-related secondary health problems (Bonanno et al., 2010).

Although disasters are viewed from different aspects, various authors categorize a disaster into four phases. The initial phase is classified by Howarth, Healing, and Banatvala (1997) as the disaster itself. But in Rao's (2006) view the first phase is the rescue phase. This is the phase where people work together, self-sacrificing and making a maximum effort to prevent further loss of life and property (Rao, 2006). In this phase, people are in the forefront of the rescue work for days, despite their injuries (Rao, 2006). In this stage the number of casualties increases but then declines over time as epidemics and malnutrition emerge (Howarth et al., 1997). The second phase of the disaster is categorized as the relief phase which may last up to six months (Rao, 2006). This is the period in which where donations of relief supplies are made, support is provided by community and non-government groups with optimistic promises in an atmosphere of compassion, care, concern and good will (Rao, 2006). The flow of humanitarian aid is described by Rajagopalan (2006) as a global shared grief as a result of the initial shock of such catastrophes.

The rehabilitation phase is the third phase of the disaster, which may take up to two years or even more (Rao, 2006). In this stage the victims of the disasters become doubtful because of bureaucratic and legal delays in relief and promises that are not fulfilled (2006). This behaviour is explained by Ainoya and Myrtle (2005) as a consequence of the occurrence of the disaster where people are faced with a dilemma of whether or not to continue to trust the authorities. In disaster situations, people feel they should rely on government responses to a crisis, yet at the same time feel frustrated by the noticeable powerlessness of governments to effectively respond to crisis situations (Ainoya & Myrtle, 2005). Eventually people comprehend they have to give up waiting and start to find their own solutions to problems (Rao, 2006). The

final phase is stated by Howarth et al. (1997) and Rao (2006) as the reconstruction phase, which may last years. Rao (2006) explained this phase as one of general acceptance that life has to move on, and people come to terms with the events and the after effects. The planning for disaster preparedness, especially for vulnerable areas, occurs in this phase (Rao, (2006).

Within these phases of adversities, the effects of the disasters have two effects as illustrated by Collins (2018): the event impacts on developmental opportunities, whereas post-disaster recovery and the ability of affected populations to bounce back needs sustainability of the society, environment and the economy.

Natural disasters

Natural disasters have existed throughout history, but in recent times the increased number, frequency and magnitude of these events is noticeable in the twentieth century (Eshghi & Larson, 2008; Leaning & Guha-Sapir, 2013). Khalili et al. (2018) agree, noting an overall increase in the intensity of global natural disasters recorded by the Center for Research on the Epidemiology of Disaster (CRED) from the International Disaster Database. Leaning and Guha-Sapir (2013) measure the increasing scale in numbers with a comparison: there were three times more natural disasters from 2000 to 2009 in comparison with 1980 to 1989. Khalili et al. (2018) project the upward direction of the frequency and the impact of natural disasters to continue to increase with respect to the imminent influences of climate change and population growth.

There is often a close connection between natural disasters and human health risk (Guidotti, 2006), including immediate death, disabilities and disease outbreaks (Leaning & Guha-Sapir, 2013). Malnutrition and communicable diseases are some of the public health consequences that affect populations, such as displaced people (Leaning and Guha-Sapir (2013). In natural disasters the most affected groups are the poor and socially disadvantaged, their vulnerability being a reflection of their social, cultural and political environments (Benson, Twigg & Myers, (2001). Beaudoin (2007) has argued that disasters exacerbate existing social inequalities and negative outcomes are worse among the poor and underserved groups. Greenough and Kirsch (2005) found that in the Hurricane Katrina disaster in the US, the vulnerability of the displaced people were accentuated because they came from the primary vulnerable

groups of the poor, infirm and the elderly. Eshghi and Larson (2008) also noted growing evidence of longer term health effects of some deprived regions affected by natural disasters in South Asia and Haiti. This view is supported by WHO (2005): "The impact of disasters is felt differentially within societies and those most socially excluded and economically insecure bear a disproportionate burden".

In recent years the features of natural disasters have changed and the possibility of being affected by a natural disaster has increased (Nakagawa & Shaw, 2004). A media release from UNISDR stated that in 2018 the death toll from catastrophic events was 10,373, comparable to annual average deaths of 77,144 between 2000 and 2017 a period of significant disasters such as the Indian Ocean Tsunami in 2004, Cyclone Nargis in 2008 and the Haitian earthquake in 2010 (McClean, 2019). The natural disaster epidemiological statistics from a WHO (2005) report stated that between 1990 and 1999, 2 billion people were affected worldwide from natural or technological disasters with 600,000 deaths of which 86% were caused by natural disasters.

Developing countries are at a greater risk of being affected by these natural disasters (Nakagawa & Shaw, 2004) who found that a disaster can be a major hindrance to the growth of the economy of a developing country. Natural disasters place huge burdens on an affected region and population, because they destroy social and physical infrastructures resulting in death and injury, as well as effects of stress, depression and susceptibility (Beaudoin, 2007). Saunders (2007) noted the example of Hurricane Katrina to illustrate the sudden multiple losses that people encounter in a disaster: loss of homes, loss of sources of income, loss of means of transport, loss of vital documents that connect them to their resources, a loss of prescriptions and medications, as well as separation from families and loved ones as a result of the deaths of family members. According to Leaning and Guha-Sapir (2013) there is increasing evidence that in disadvantaged communities affected by natural disasters the rising longer term health effects is interposed by food insecurity.

Responses to disasters

Academic literature on research into disasters started emerging following Hurricane Katrina in the US in 2005. Eshghi and Larson (2008) note population is a factor that contributes to the impact of disaster with the observation of greater populations and

numerous disasters in developing countries than other nations. Indeed, Leaning and Guha-Sapir (2013) indirectly commented on this aspect, stating that poorer countries require more relief and broader assistance in natural disasters than prosperous countries, although they point out that even in wealthier nations relief responses are challenged by nation-based preparedness and response. According to Bonanno et al. (2010) disaster research has various methodological hindrances that inhibit the presentation of an accurate picture of their consequences.

Although responses to disasters often have similarities (Spiegel, 2005), Leaning and Guha-Sapir (2013) point out that not every person responds in the same way to disasters. An impacted population is in a state of shock with mixed emotional responses associated with grief, which explains why some people do not allow themselves to understand or comprehend their own losses, but instead emerge themselves into rescue work until they reach a point of exhaustion and collapse (Rao, 2006). Individual responses of the people are normal responses to unusual situations (Rao, 2006). The individual survivor's experience of a disaster is exclusive, on the basis of their distress and resilience (Walsh, 2003).

During the course of the events, affected populations are not able to return to normal life because they have to start rebuilding their lives in makeshift accommodations and relief camps, resulting in disorientation and loss of identity (Rao, 2006). In the aftermath of disasters emergent behaviours are mainly primitive in nature, and usually materialize when the normal actions cannot be practised or are not appropriate (Rodriguez, Trainer, & Quarantelli, 2006). An example of such behaviours is described by Rodriguez et al. (2006) who observed that in overcrowded hospitals following Hurricane Katrina, there was widespread antisocial behaviour, and hospital staff had to carry personal protection weapons. This is supported by Saunders (2007) who reported that post-Hurricane Katrina survivors who arrived at shelters hoping for help and safety, instead encountered widespread stealing and long waiting lines and frustrating bureaucracies when looking for assistance. On the other hand, Saunders (2007) also reported that the resource most people brought with them to the shelters was a strong sense of family. Rodriguez et al. (2006) agreed that even though there were reports of extensive antisocial behaviour, in hotels guests assisted each other and later stated positive feelings about hotel staff.

Another key factor in natural disasters is displacement of populations, forced migration (Keane, 2004) that creates a group of internally displaced people (Howarth et al., 1997). In demonstrating the severity of the issue Greenough and Kirsch (2005) stated that the massive displacement as a result of Hurricane Katrina is an event the country had never experienced. The internally displaced groups may opt to remain in their home countries or travel across borders and become refugees (Howarth et al., 1997). Even if they decide to stay in their home countries, appropriate assistance is hindered because they often move to urban or isolated areas, making it difficult to account for the needs of these groups (Howarth et al., 1997). The impact of disasters goes beyond individuals and has similar rudimentary patterns of dysfunction and resilience in communities (Leaning and Guha-Sapir (2013).

Disasters and social capital

Exploration of social capital in disaster literature has specifically focused on the limited economic means of the disadvantaged communities. According to (Hawkins & Maurer, 2010) the concept has gained intellectual importance as a way of understanding the strength of families and communities. Most disaster survivors feel lonely, secluded and frightened, and social support networks provide them comfort and security (Rao, 2006). Often volunteers and others are present for a short period, but it is preferable for individuals to start reconnecting with their own community. The facilitation of such self-help support groups, contact with family and friends, and new relationships, are a significant long term disaster recovery initiative and strategy (Rao, 2006). In agreement, Beaudoin (2007) noted that disaster preparedness and recovery are better amongst people with high levels of trust, community participation and social networking.

Social support is the most important need of communities in the aftermath of disasters (Ibanez, Khatchikian, Buck, Weisshaar, et al., 2003). Social support is described by Beaudoin (2007) as the aftermath responses from the communities. In Nakagawa and Shaw's (2004) view social capital is the trust, social norms and networks that impact the social and economic movements of a society. Beaudoin (2007) defines social capital as resources from connection and interactions between people established in social networks, which are accessible and can be utilised when needed. When a

disaster occurs the effects of it echoes through the various social networks and political systems within the community (Ibanez, Khatchikian, Buck, Weisshaar, et al., 2003). When the community starts reacting to the physical and emotional impacts of the disasters these networks and systems respond in various ways (Ibanez, Khatchikian, Buck, Weisshaar, et al., 2003). The assumed assumption is that response from the community will be the organization of informal and formal social support resources (Ibanez, Khatchikian, Buck, Weisshaar, et al., 2003). But the opposite may occur in some circumstances because conflict may arise from competition for limited resources (Ibanez, Khatchikian, Buck, Weisshaar, et al., 2003).

Social support is linked to improved post disaster health and development (Beaudoin, 2007). This view was expressed on the basis of the findings of Ibanez et al., (2003). The research was a qualitative exploratory study in three different Mexican communities that had experienced the major disasters of Hurricane Andrew, Hurricane Paulina and a sewer explosion. In-depth interviews were conducted with 25 participants from these communities to identify the experiences of the survivors in social support and conflict after a disaster. They found that social support was more than conflict in the communities. Another study of a contextual analysis of social capital and self-rated health by Kawachi, Kennedy, and Glass (1999) in which 167,259 participants in 39 US states were interviewed by telephone, demonstrated there is a connection between social capital and positive health outcomes. In addition, Beaudoin (2007) conducted a qualitative study on 57 adult Hurricane Katrina survivors to assess the role of news information and social capital in public health functions. The study showed that social capital is a resource that anyone despite their ethnicity, educational status or social class can develop and use in providing benefit to psychological health. The role of radio was evaluated in Aceh province, Indonesia by Romo-Murphy, James, and Adams (2011) with 984 survivor interviews. The study revealed the value of community and social networks in disaster situations, when vital communications are down.

Following the 2004 Florida hurricanes, Acierno et al. (2007) conducted a study to determine the mental health effects of the four unprecedented major hurricanes over a 7-week period that resulted in tremendous damage. The study was a survey of 1,452 adults of 18 years and older in 33 counties. A structured computer-assisted telephone interview was conducted in English or Spanish seeking basic demographics, hurricane

exposure characteristics, social support and post-traumatic stress disorder. The study found that high social support 6 months after the hurricanes protected against all types of disorders. A study focused on social engagement in the post-disaster period of the Great East Japan Earthquake in March 2011 by Okuyama and Inaba (2017) showed that interaction with others was positively related to life satisfaction, however they concluded that, in addition to loss and reparations, natural disasters can modify social capital resources because of effects on attitudes and perceptions of people.

Resilience

The concept of resilience, according to Earvolino-Ramirez (2007, 73) emerged from the early psychiatric literature on children who appeared to be ‘invulnerable’ to adverse events in life, and over the years this term was replaced with resilience. Resilience was properly defined in 1973 and since then has been increasingly explored in medical and psychological narratives (McGeary (2011)). Presently, resilience is used in a number of disciplines and is especially applied in the field of disaster management (Manyena, 2006). Adeagbo, Daramola, Carim-Sanni, Akujobi, and Ukpong (2016) consider resilience as the time taken to mend from the impacts of disaster, whereas Buse, Bernacchio, and Burker (2013) view the way emotions are expressed following an adverse event as an indicator of resilience. Although many people who live through trauma respond with resilience, the response is unpredictable because a traumatic event is an extremely personal experience and the impact of it is specific to the individual resulting in an unpredictable response (Buse et al., 2013). Bonanno (2004) agrees with that view, stating that when faced with loss or potential trauma, resilience is a specific part of the recovery process, which can eventually be reached in a range of different ways. Manyena (2006) noted that activities to address resilience in disasters can increase community coping capacities, allowing them to make appropriate choices from the perspective of their own environments.

Manyena (2006) reviewed published literature and personal communication from disaster scholars and researchers regarding the definitional issues on resilience and concluded that the definition has gradually progressed from one that viewed resilience in terms of an outcome to a much more process approach. Reflecting this approach, Luther, Cichetti and Becker (2000, 543) defined resilience as a ‘dynamic process encompassing positive adaptation within the context of significant adversity’. From

the same perspective, Reich (2006, p. 793) described this more simply as, ‘the ability to bounce back and even grow in the face of threats to survival’. In a different tone, Buse et al. (2013) view resilience as a complex phenomenon that is personified in diverse ways as the individual’s cultural background influences how they perceive trauma and the resilient responses.

Manyena (2006) further explored the theoretical basis of the concept of resilience, and found it has been investigated widely, resulting in several models, frameworks and principles that range from Bradley and Grainger’s (2004) Social Resilience Model, to Paton, Smith and Violanti’s (2000) risk management model for disaster stress. The Social Resilience Model is described by Bradley and Grainger (2004) as a model where the players switch from performance tactics to survival strategies when the perceived severity of constraints exceed the survival threshold. The risk management model was proposed by Paton et al. (2000) as a framework for conceptualising the relationship between the vulnerability and resilient factors. Tobin’s (1999) composite sustainable and resilient framework presented as an approach to the analysis for communities in hazardous environment. More recently Cutter et al. (2008) proposed the ‘Disaster Resilience of Place Model’ (DROP) model, intended to present the relationship between vulnerability and resilience. The model describes resiliency as a dynamic process dependant on precursor conditions of the disaster such as severity, time between events and influences from external effects. According to Cutter et al. (2008) if a community has learnt from a previous disaster and used the experience to improve mitigation and preparedness, it is probable that they have strengthened their inherent resilience.

The description of resilient principles are offered by Mallak (1998), Kendra and Wachtendorf (2003) and Davis (2004). Mallak (1998), who studied resilient behaviours in health care providers and developed and tested a resilient scale, found six resilient factors that are pivotal: goal directed solution seeking, avoidance, critical understanding, role dependence, source reliance and resource access. Kendra and Wachtendorf (2003) explored the elements of resilience after the World Trade Centre disaster in New York City and found a close relationship exists between community and organisational resilience. Some elements that were identified are anticipation-resilience dichotomy, centralisation-decentralisation pattern, and creativity in pre-

existing organisational attributes. In relation to developing targets in resilience specific to earthquakes Davis (2004) identified trust and control as performance management indicators. Emerging from this literature, Reich (2006) identified three core principles pertaining to human resilience when encountered with stressors related to disasters. The three principles are control, coherence and connectedness. These three principles, which are detailed in chapter 4, have been used as a theoretical framework to underpin the present study, inform the analysis and draw conclusions.

Women and Disasters

Research on the impact of disasters related to gender differences in vulnerability, is limited (Moreno & Shaw, 2018; World Health Organization, 2005). But the WHO states some evidence demonstrates that men and women experience different negative health outcomes. That view is supported by a review conducted by Norris et al. (2002) of all published literature between 1981 and 2001 on psychosocial consequences of disasters. The review showed a statistically significant gender difference in post-disaster distress with female survivors being more adversely affected. The same review demonstrated that the effects of gender were often greater in populations that had other risk factors that could contribute to vulnerability. A different survey was conducted by Mills, Edmondson, and Park (2007) on 132 adults on the impact of Hurricane Katrina on public health. This survey specifically assessed the acute stress disorder (ASD) and factors related to ASD symptoms among evacuees in a major evacuation shelter. The findings of the survey concluded that poor prognosis was related to female gender. Adeagbo et al. (2016) view gender is an issue in disaster impacts as numerous links have been established between disasters and demographics, and physical differences between genders is an identified vulnerability factor. The cited literature suggests that gender is an important factor in determining vulnerability in natural disasters (Benson, Twigg & Myers, (2001).

Gender is the primary determinant of social organizations and shapes a societal environment (Tutnjevic, 2003). Family units in many societies are built with role definitions in reference to gender (Goodwin et al., 2005). Traditionally and typically households are headed by males (International Labour Office, 2002). In these family units women manage the physical resources provided by men and at the same time provide emotional and social resources (Goodwin et al., 2005). Women are expected

to keep the family intact and bring up the children by supervising, tending and caring for them, but are expected to earn as well in order to supplement income generated by men and to assist in supporting the growing family (International Labour Office, 2002). The combination of this role definition with socio-cultural norms creates an environment in which women have minimal control over finances or transport, which may hinder access to health care resources of both women and their families (Gaseer et al., 2004).

Despite the fact that society has assigned different roles and responsibilities in crisis situations the experience affects women and men differently, and a change in gender role may occur (Tutnjevic, 2003). A seven-year longitudinal study on gender relations in a coastal community following the 2010 Chile earthquake and tsunami showed that disasters can result in situations that enable social change (Moreno & Shaw, 2018). This may take them away from their socially assigned roles, which could be empowering, with a positive impact on the role of women in society with enhanced economic independence and an increased ability to provide for their families (Tutnjevic, 2003). On the other hand some strategies could be problematic and challenging as they may not be socially acceptable (Tutnjevic, 2003). Moreno and Shaw's (2018) study supports this notion as it showed that disasters result in endless changes that challenge established patriarchal relationships. Nevertheless, when a disaster strikes both men and women find new strength, but the women's role increases drastically (International Labour Office, 2002). The WHO (2005) report suggested that in such catastrophic situations it is not apparent whether this gender disparity is due to biological differences between the sexes, or socially determined differences in roles, or because of an interaction of both factors. Gaseer et al. (2004) claim that in emergency health situations during disasters the general health situation of the population is worsened, but women are particularly affected due to both biological and socio-cultural factors.

Natural disasters have a significant economic and social effect on both men and women (Hines, 2007). The impacts of disasters are often considered in gendered contexts and women are generally considered to be more vulnerable than men (Lindberg, 2008). According to Lindberg (2008) vulnerability is usually a result of an inequality and is dependent on factors such as gender, class, ethnicity and age. The

social customs and gender constructs that have been created in societies lead to biased judgements (Hines, 2007). The dominance of men in leadership areas such as religion, politics and economics has a negative impact and weakens the society in undermining the women's abilities, skills and rights (Lindberg, 2008). The gender socialization processes create traditions and expectations, and develop beliefs about gender stereotypes that also make women more vulnerable (Bhadra, 2017; Hines, 2007). The societal image of women is promoted as being weak and physically inept, and such traditions damage female empowerment (Hines, 2007). Male and female responses to disasters are related to these existing gender dimensions, socioeconomic status and power relations (Lindberg, 2008). This is accentuated in the media where, in contrast to men whose emotions are refuted, women are portrayed as the emotional ones in disasters (Lindberg, 2008). The World Health Organization (2005) agrees with these views, stating that the vulnerability of women is increased by the impact of disasters because of socially determined differences of roles between genders and inequalities in accessing resources and decision-making power.

In disaster situations the traditional gender roles are accentuated significantly where men take the role of securing physical resources for protection of life and women take care of the families (World Health Organization, 2005). In addition to this heightened role women take up the additional responsibilities of securing their children's safety and retain the remnants of any remaining valued possessions (International Labour Office, 2002). In the aftermath of disasters, when life has to be moved to temporary shelters women ensure there is a resemblance of a home for the family. Women often have to live in these shelters that lack security and privacy; post-disaster relief policies often fail to address the unique needs of females, which result in lack of obstetrical care for pregnant women or even lack of access to contraception or sanitary supplies (Hines, 2007). Thus, social and economic break down following disasters makes women more vulnerable to sexual abuse and domestic violence (Hines, 2007).

Moreno and Shaw (2018) contribute the view that although disasters alter gender relations, the conditions that contribute to these changes are unclear. Some authors have discussed such conditions. Felten-Biermann (2006) found post-disaster surviving women often have to take over additional roles of caring for the sick or traumatised and have the burden of caring for families of deceased relatives. Women's access to

relief centres are inhibited by social cultural norms and the difficulties of leaving home due to added caring responsibilities (World Health Organization, 2005). Rao (2006) points out that these women may have difficulty in accessing relief centres and other sources of assistance as they have to take on the role of looking after others even before they are ready to do so, and at the time of taking on additional roles they themselves require support. Therefore, the result of a significant change in the care-giver role, putting family needs before their own, is a decline of their emotional wellbeing, which contributes to deteriorating health outcomes of women who survive disasters (WHO 2005).

Women and December 2004 tsunami

A report published by Oxfam International (2005) on the tsunami's impact on women stated that scattered data showed that many who died from the disaster were women, and missing and the displaced were unaccounted women. This report further elaborated that in Aceh (Indonesia), India and Sri Lanka, collated evidence shows more women died than men. Oxfam surveyed the four districts in Aceh Besar in Indonesia and only 189 of 676 survivors were females with a ratio of 3 male survivors to 1 female survivor (Oxfam International, 2005). In four villages in North Aceh district 77% of deaths were females; in the worst affected village of Kuala Cangkooy 80% of deaths were females (Oxfam International, 2005). According to the same report, in India three times as many women were killed compared to men, and there was a village where only women died (Oxfam International, 2005). Fractional information from Sri Lanka also demonstrated a gender imbalance in the surviving population (Oxfam International, 2005). In relying on such information Carballo et al. (2005) reasoned that women were at greater risk of death for various reasons and concluded that for every male death, three females died. Sukma (2006) reported that of the estimated population of 200,000 who lost their lives most were females and children. The high mortality of women was related to their cultural dress traditions, lack of physical ability in surviving skills, efforts to conserving their savings and the higher risks they took to protect their children (Pittaway, Bartolomei, & Rees, 2007).

Tsunami Research in Maldives

A literature search was conducted to seek any published literature on the tsunami in Maldives. Few articles were found, with two articles by the same authors. The first was a description of the mental health and psychosocial responses to the tsunami and an outline of the long term plans for mental health issues in Maldives (Ibrahim & Hameed, 2006a). The second article describes the achievements of mental health and psychosocial aspects of the disaster preparedness (Ibrahim & Hameed, 2006b).

The first of these articles describes the psychological impact on the communities. The initial issues were described as emotional problems such as excessive crying, immense grief, fear and survivor's guilt with psychosomatic symptoms. These issues were aggravated by loss of livelihood and jobs, resulting in uncertainty about the future and the emergence of numerous social issues such as domestic violence, vandalism, community violence, drug abuse and thefts. A qualitative assessment was conducted as an educational workshop to determine the needs of the community with 1,031 participants from both the disaster affected and host communities. The findings of this assessment showed high psychosocial morbidity in all age groups. The article then went on to describe the process of psychosocial activities that took place. The immediate response to the tsunami was at the island level led by the local community leaders involving the entire population, where the less affected acted as host communities warmly receiving the affected population providing food and shelter. Immediately following the tsunami, the NDMC was set up with a special unit for psychosocial first aid. The unit was comprised of mainly volunteers, and with assistance of international agencies they started mobilizing teams to the affected islands. The teams were local Maldivians who spoke the language and were familiar with the culture. A rapid assessment of the situation was conducted by the American Red Cross and plans were developed. The immediate implementation was the training of 70 counsellors followed by training of 321 teachers to ensure there was at least one counsellor on each inhabited island. The volunteer teams went back to the islands and created Emotional Support Brigades to offer outreach support. The article concludes the overall response was excellent, but the tsunami created the opportunity to review the existing state of the mental health services in the country and to formulate a plan to address these issues (Ibrahim & Hameed, 2006a).

The second article by the same authors describes the mental health and psychosocial aspects of the disaster preparedness. Before the tsunami, the only existing emergency plan in Maldives was the emergency contingency plan for the single international airport. Post tsunami, a draft Emergency Preparedness and Response plan was formulated for the health sector. The plan was further elaborated with components of mental health and psychosocial support. The objectives of the support activities were identified as reducing the mental health morbidity, disability and social problems with access to social and mental health services after a disaster. Suggestions were made for social support activities, implementing psychological first aid and clinical mental health interventions. The main recommendations were to formulate mental health legislation, mental health policy and develop a community mental health plan (Ibrahim & Hameed, 2006b).

The response from Australia to the tsunami in the Maldives was deployment of a medical team. The experiences of this team was reported by Robertson, Dwyer, and Leclerg (2005) who concluded that the health response in Maldives was a success story, with suggestions for improvements of arranging such teams. In addition Fulu (2007a) described the preliminary responses from local and international organizations to the aftermath of tsunami in Maldives arguing that it was inadequate from a gender perspective, as gender specific issues were neglected or over-simplified. According to Fulu (2007a) gender was recognised in formal documents but was not fully addressed in the practical responses to the tsunami. She argued that the initial response to the disaster was taken up by the military which was comprised mostly of men who established a male dominant approach. The disaster management response teams were primarily led by males as well, which contributed to a neglect of gender considerations (Fulu, 2007a). Fulu concluded that the gender response was inadequate because the disaster attracted international experts who addressed gender in the form of tools, frameworks and mechanisms and, in addition, incorporated existing local culture norms in making decisions.

Lawther (2009) authored an article on community involvement in post-disaster housing reconstruction by the British Red Cross Maldives recovery program. The article described the community involvement in the program and the adjustments made to improve the participation with an evaluation of the outcomes. Lawther (2009)

concluded that the community involvement in the reconstruction was an important aspect and strategies that promote this aim would lead to more sustainable outcomes. Later, Lawther (2014) published another article on post-tsunami recovery specifically focusing on the island of *Vilifushi*, which was completely destroyed in the December 2004 tsunami. The paper examined the post-occupancy impact of the permanent housing reconstruction upon the wider socioecological system of *Vilifushi* community using qualitative research with the four wealth capitals of sustainable development as the analytical framework. The findings showed the delivery of permanent housing undermined the human, natural and social capital wealth stocks of the community. Lawther (2014) concluded that permanent housing reconstruction needs to be seen as much as a social process as the engineering process. Furthermore, numerous reports on strategic frameworks, development programs and assessment surveys have been published by the MPND and United Nations Development Program (UNDP). These reports mainly described the post-tsunami progress of rebuilding programs in the Maldives.

Chapter Summary

This chapter sought to provide sufficient understanding of the literature that supports the background, purpose and significance of this study. The areas of interest that have been discussed are natural disasters and resilience. Literature that demonstrates the significance of disasters around the world were presented, and the impacts and effects discussed, along with the concept of resilience. The context of this research study is the natural disaster of December 2004 tsunami in Maldives. The response to natural disasters and the gendered differences were further explored. The role of women and the impact on them in the December 2004 tsunami was discussed. The final part highlights the literature focused on the December 2004 tsunami in Maldives. Descriptive articles have been written by a few authors. It was noted that while much research has been focused on the tsunami, few studies focused on a gendered context. There was hardly any research on these aspects in Maldives except for reports on post-tsunami progress and descriptions of rebuilding programs. The current study is needed to explore the experiences of post-disaster surviving females. Chapter 4 presents the methodological considerations of this study.

Chapter Four: Research Design and Methods

Introduction

This chapter describes the research methodology and the study design. The chapter commences with an introduction to the qualitative research approach and defines the theoretical underpinning and the rationale for the study. A detailed description of the conceptual and methodological framework follows. The methodology of the study is then described. The research objectives are outlined with the identification of the research design, description of the sample and setting, explanation of the data collection methods and discussion of management and analysis of data. The chapter concludes with a discussion of ethical issues.

The Research Approach

Qualitative research is an interpretive inquiry that describes the outlook of the world from the perspective of the participants by studying things in their natural settings and inferring phenomena in a way that brings meaning to them (Creswell, 2009; Denzin & Lincoln, 2005; Flick, von Kardoff, & Steinke, 2004). It is used in many disciplines and does not have methods or paradigms that are entirely its own (Denzin & Lincoln, 2005). The most significant aspect of qualitative research according to Bryman (2003) is the importance given to the perspectives of the people being studied along with the associated weight on interpreting the related observations in agreement with their own understanding. The purpose of this approach is described by Flick et al. (2004, p. 3) as a contribution for an improved insight into ‘social realities’ and focus on ‘processes, meaning patterns and structural features’. This study is an in-depth exploration of Maldivian women’s experience of the December 2004 tsunami, which rendered a qualitative inquiry as the most appropriate research approach to study the impacts of the tsunami on their lives and the resilience they exhibited in rebuilding.

Qualitative research emphasizes the socially constructed nature of reality by building a close relationship between the researcher and what is being studied and the situational limitations that outline the inquiry (Denzin & Lincoln, 2005). It aims to understand how social experience is created and given a meaning (Denzin & Lincoln, 2005). The qualitative research process encompasses a set of ideas with an epistemological view, theoretical perspective and a methodology (Denzin & Lincoln,

2005). Using this process, this present study incorporates the epistemology of constructivism, the process of mimesis and case study methodology approach.

In research, epistemology is described as theory of knowledge and perception (Carter & Little, 2007; Flick, 2014). The ontological paradigm in research is reality and the epistemology is the relationship between the reality and the researcher (Sobh & Perry, 2006). Constructivism is an epistemological stance in qualitative inquiry with an assumption that there are multiple realities where meaning is constructed when the individuals engage with the world, creating an understanding between the researcher and the participants (Denzin & Lincoln, 2005; Flick, 2014). In this study the experiences of the women are structured and understood through subjective concepts and contexts created by them (Creswell, 2009; Flick, 2014). These concepts are varied and numerous, compelling as a researcher to explore for complexity of views rather than narrowing the meanings to certain notions (Creswell, 2009). The experiences of the women are explored in this study with the notion that there are multiple realities for them, when understanding the contexts and impacts of the December 2004 tsunami.

The epistemological stance of constructivism is embedded in the process of mimesis in which the natural world is transformed into symbolic worlds, providing a framework of social science research (Flick, 2014). Mimesis follows the work of Ricoeur in the early 1980s and is a process of construction, interpretation and understanding of narrative texts (Flick, 2014). In the framework of social science, mimesis is not limited to literary texts but encompasses understanding as a whole, resulting in comprehension as a concept of knowledge (Flick, 2014). The process of mimesis is used in this study in reading and understanding the texts as the active procedure in producing reality (Flick, 2014). The experiences of women are transformed into narratives, the researcher constructs the text, and interpretations are fed back into the contexts of the study as presentations of findings (Flick, 2014).

The reality paradigm associated with constructivism is defined as the external reality, which is made up of structures, interconnected parts with mechanisms of interactions between them (Sobh & Perry, 2006). This external reality is explained by Sobh and Perry (2006) as an unclear opening to people's perceptions. As concluded by Riege (2003, p. 77), through 'natural and social sciences' reality can be discovered and

explored with some ambiguity, acknowledging the differences between the real world and their specific views to it. The women's reality of the experiences of the tsunami is explored and ascertained in this study, with recognition that there may be a difference between the real world and the women's perceptions. In the research approach of realism, the research is commenced with prior theories (Sobh & Perry, 2006). Prior theory is considered in this study as additional evidence that is used to clarify the external reality of the women's perceptions (Riege, 2003). In view of the above epistemological discussion for this research, case study methodology was viewed as the most appropriate methodology to explore the case under study.

Identification of Research Methodology

Case study

Case study is a research approach as stated by Yin (2003, p. 1), used in varied situations to contribute to the existing knowledge of 'individual, group, organizational, social, political and related phenomena'. According to Yin (2018, p. 17) case study is 'an empirical method that investigates a contemporary phenomenon (the "case") in depth and within its real-world context'. Yin (2009) further states that case studies allow the retention of holistic and significant characteristics of real-life events, resulting in an understanding of a complex social phenomena. This present study examined the real-life event of the case of the tsunami of December 2004 and its impact. the case study method is preferred when studying contemporary incidences in which behaviours cannot be manipulated (Yin (2009)). The case study uses similar methods as in exploring history, but in this study the unique strength of the methodology of using the ability to use a variety of evidences such as documents, artefacts, interviews and observations were utilized (Yin, 2009). With this method the researcher follows well-developed and tested vigorous procedures designed to elucidate details from the viewpoints of the participants (Tellis, 1997a). The most prominent characteristic of case studies is that the methodology allows a multi-perspective analysis of not only the perspective of the participants, but also views of the groups of participants and the interactions between them (Tellis, 1997a). In this study multi-perspective views were considered by seeking the views of the women as well as of others who helped them rebuild their lives. The case study method is chosen, because the research aimed to understand a complex social phenomenon of a real-life event (Yin (2003) preserving

the holistic and meaningful characteristic of the events in the period following the December 2004 tsunami and its impacts on women's lives in Maldives.

Theoretical framework

A major and essential difference of case study method and other related qualitative methods is the role of a theoretical framework or a theory prior to collection of data (Yin, 2009). This is supported from a realism perspective by Sobh and Perry (2006) who stated that research seeking for realism often starts with prior theories. In the design phase of case study research it should be determined whether the focus of the study is theory testing or theory development (George & Bennett, 2004). The goal of this step is to have an outline for the study that provided a strong guidance in determining the strategies for data collection and analysis (Simons, 2009; Yin, 2009).

In case study methodology one way of using theory is using an existing theory to inform selection and make sense of the data (Simons, 2009). Congruence method is when the researcher begins with a theory and then attempts to assess its ability to explain or predict the outcome of the case (George & Bennett, 2004). In this study the prior theory of resilience is used to explain the case of the Maldivian women's experience of the tsunami. Using the congruence method the prior theory of resilience creates a relationship between the variance in the independent variable of Maldivian women and the variance in the dependent variable of their experience of the tsunami, which is deductive and a form of empirical generalization (George & Bennett, 2004). The congruence method also offers considerable flexibility and adaptability and contributes to theory development in several ways (George & Bennett, 2004). The theory employed in the congruence method may be well established theories or may be formulated or assumed by the researcher on the basis of an intuition that may turn out to be important (George & Bennett, 2004). In exploring the phenomena for this research study, the concept of resilience was used as a prior theory as it has been used extensively in disaster research and it was assumed that it may be an important notion when exploring the women's experiences of the tsunami disaster. The concept of resilience was used as a theoretical framework to guide representation of the relationship between the variables of the study phenomenon of the Maldivian women's experience of the tsunami. At the same time the concept of resilience was also used as

a conceptual framework to guide and provide directions for data collection and analysis.

A specific type of case study methodology that employed the congruence method is described by George and Bennett (2004) as a disciplined-configurative design, and this was viewed as the most appropriate type of design for the chosen methodology. The reason for selecting disciplined-configurative case study design as the preferred choice is that the study aimed to explain the case using the theory of resilience (George & Bennett, 2004).

Conceptual framework: Resilience

Emerging from disaster literature, Reich (2006) identified three core principles pertaining to human resilience when encountering stressors related to disasters. The three principles are control, coherence and connectedness. The conceptual framework selected for the proposed research study is these three principles of resilience, as they offer a clear and a distinct framework to explore the Maldivian women's experiences in the context of the tsunami. As outlined by Reich (2006) it also provided a conceptual framework for understanding human resilience, allowing identification of specific domains and relevant categories of responses for optimizing health. The next section provides a brief explanation of the three principles of control, coherence and connectedness.

The principal of personal control

Research has determined that people need to believe they have control in their lives and those who have personal control beliefs have more satisfaction in life, high morale, less depression and tend to live longer (Reich, 2006). People have a need to believe that they possess personal resources to achieve their goals. Reich (2006) explained that the survivors of the Sumatran tsunami demonstrated outstanding resilience through their focus on rebuilding their lives, and the vital approach employed in rebounding was the efforts of regaining back their personal control. A study by Mellon, Papanikolau, and Prodromitis (2009) on 800 survivors of the wildfires or forest fires in Greece in 2007, is congruent as it showed statistically significant correlations between levels of external locus of control beliefs and levels of psychopathology for groups of survivors exposed to higher levels of trauma and loss.

Loss of personal control has detrimental effects such as fear of being in prison or long term psychological impacts of loss of a loved one (Reich, 2006). Often in disasters, in order to re-establish their control people, use primitive behaviours and actions such as looting and vandalising (Reich, 2006). Reich (2006) has argued that it would be easier to re-establish control if there are planned forward pathways.

The principal of personal coherence

The sense of coherence is a basic element of individual resilience by which people ask for explanations and want answers. (Reich, 2006, p. 795) explained this phenomenon as a natural occurrence that psychologists call “epistemic behaviour”, the need to know and the yearning to remove uncertainty. In the American Gulf Coast hurricane, people were calling out for food and water and at the same time calling out for answers related to the difficult situation they were in (Reich, 2006). The drive for information is described by Reich (2006) as a rudimentary norm in the motivation of all beings. The concept of the rudimentary norm is demonstrated through a study by Braun-Lewensohn and Sagy (2014) of 150 Israelis from communities in the Gaza to Negev to examine the sense of coherence and communal resilience related to stress reactions during missile attacks from the Palestinians. The study showed that a personal resource of sense of coherence is important for both urban and communal residents.

People function at their optimum when they can maintain a combination of their emotional, intellectual and behavioural capacities (Reich, 2006). In the event of disasters, individual and societal accustomed lives are destroyed, creating behavioural disruptions and emotional disorganisations (Reich, 2006). In response to disasters, the main objective of relief efforts should be building the resilience capacities by overcoming the yearnings for coherence through enriching meaning, direction and understanding in order to create sustainable reestablishment of individuals and societies (Reich, 2006). Braun-Lewensohn and Sagy (2014) agree that to prepare for dealing with continuous potential stressors it is important to strengthen the individual coping resource of sense of coherence.

The principal of personal connectedness

In disasters, a major aspect of stress is the breakdown of stable bonds with others. When social bonds are torn apart, people develop fear that they will have to confront

the threats of the disaster by themselves. This experience of loss of human contact is damaging to physical and mental health. Evidence shows that there is a positive benefit of strong social connections as human behaviour is undoubtedly social in nature (Reich, 2006).

In a disaster the need for social connectedness is very high for survivors (Reich, 2006). A common human behaviour is to group together, to seek out each other and even establish bonds with strangers (Reich, 2006). Combined with control and coherence, people come together to organize, plan and achieve goals (Reich, 2006). The social networks people have are an immediate resource for resilience, expanding the person's abilities and providing a supportive relationship to get through hard times in life. Walsh (2003) says that in crisis situations cohesion can be destroyed if people are unable to turn to other people for support. Brewin, Andrew, and Valentine (2000) argue there is evidence that the most powerful protective factor after exposure to trauma is support. (Reich, 2006) also points out that informational and emotional support may help in building social relationships.

Research Design

A research design is the coherent structure that connects the empirical data to the research question and to its conclusion (Yin, 2009). In case study research design there are five components which are: 1) study questions or the objectives of the study, 2) its proposition, 3) unit of analysis or selection of the case, 4) the logical linking the data to the proposition or data collection, and 5) the criteria for interpreting the findings or data analysis (Yin, 2009).

Objectives of the study

The research question this study aims to answer is “What are the factors that contribute to the experiences of Maldivian women post December 2004 Tsunami disaster?”

The specific objectives guiding this study formulated from the conceptual framework provided the structure for collecting and managing the data. The specific objectives of the study are:

- To explore the factors that enabled tsunami affected women to achieve a sense of personal control in rebuilding their lives.

- To determine the influences on the tsunami affected women's sense of personal coherence.
- To ascertain the strategies the tsunami affected women used to achieve a sense of personal connectedness.
- To examine the attitudes and behaviours of others to the tsunami affected women's experiences.
- To determine the perception of changes in the tsunami affected women's role during the national recovery process.

Study propositions

Propositions are aspects that need examining within the scope of the study (Yin, 2009). If the objective of the study is exploratory, according to Yin (2009) the study focuses on a purpose instead of propositions. Hence, the purpose of this study is to synthesize a cohesive explanation of the experiences of the Maldivian women following the December 2004 tsunami.

Selection of the case

The research used a disciplined-configurative case study design Yin (2009) in understanding a complex social phenomenon of a real-life event preserving the holistic and meaningful characteristics of the events in the period after the tsunami. The event was studied as a single case, as justified by Yin (2003, pp. 41, 42) as a 'unique' and a 'revelatory' case that gives an opportunity to analyse an incident which has not been previously accessible. Another rationale for exploring the phenomena as a single case was when it represented a 'critical case' in testing the theory of resilience Yin (2009, p. 47).

Stake (1995) stated that case studies should always have boundaries. The case boundaries are described by Cousin (2007) as the physical confines, the activities and the time span of the study. The boundaries of the proposed study is defined by clearly identifying what is incorporated in the bounded system as suggested by Simons (2009) with clear evident boundaries of the event of the December 2004 tsunami, in the context of a single country (Maldives) within a time frame of 2004 to 2008.

Study setting

The setting for the study was four selected islands in Maldives which were affected by the December 2004 tsunami. The islands were selected on the basis of very high impact categorization by MPND (2005b) involving extensive damage to housing and infrastructure, and the population displaced to another island. These four islands were *Raa Kadholhudhoo*, *Thaa Vilifushi*, *Meemu Madifushi* and *Dhaalu Gemendhoo* and the descriptions of the islands are as follows.

Raa Kadholhudhoo

Kadholhudhoo is one of the 16 inhabited islands in *Raa Atoll* of Maldives. It is one of the most compacted islands in Maldives. The island has hardly any trees, and no open spaces for parks or playgrounds; instead the island is full of house dwellings. The houses are small—on average 2.5 metres by 3.5 metres—and are built very close together. Town planning is poor with kitchens built on streets as there is no space in housing compounds. The island has no designated streets, just small lanes between houses. It is best described as a congested small concrete jungle. The island is located on the west side of the atoll and is 70 kilometres west of capital island Malé. It is the largest community in *Raa Atoll*, and according to MPND (2016) the island had a population of 3,679 in 2004, living in an area of 7.2 hectares (M. Fulhu, personal communication, January 25, 2011).

Island Life

Kadholhudhoo is a fishing island and a relatively wealthier community than most islands. Men usually go on daily fishing trips and return at night. The island community is rich with their earnings from the fishing industry and is considered as the business centre of *Raa Atoll*. The island is well developed with services of an island school and a health centre. The people live in strong, sturdy but small housing structures of which many are two-storeys as the island lacks space. Two-storey buildings are uncommon in most islands, demonstrating the affluent lifestyle of *Kadholhudhoo* people. The households have modern electrical goods such as refrigerators, air conditioners and televisions which are rare for island households. The island community is not religious, but a small mosque exists for praying. The *Katheeb* (Island Chief) of the island has a good relationship with the community, but the people believe that he lacks leadership skills. There are no community-initiated programs for

island or community development and any such program is funded by the government. Very rarely the women beach *dhonis* for repair, to raise funds for island development activities (M. Fulhu, personal communication, January 25, 2011).

An average *Kadholhudhoo* family has seven to eight siblings. Within families, a child is born each year, and it is common knowledge that men in the community do not believe in family planning or birth spacing. Education for children is not seen as important and children leave school at a young age. Women of the island usually stay at home and look after the children. There are very few women involved in fish processing (A. Ali, personal communication, January 26, 2011).

The island has numerous social problems, the issues a result of a large community being forced to live in a small land area. The children grow up in large families with a single parent as the fathers are away fishing. The houses are small and congested with overcrowding. Some family members have to sleep outside on *joalifathi*'s (type of deck chairs made from wood and rope). There are no social entertainment facilities. Substance abuse and gang fighting is common among the youth. There is also a lack of law abiding behaviour by adults. Children always play water games in the sea as there is no room for play on land (M. Fulhu, personal communication, January 25, 2011).

Tsunami Impact

Kadholhudhoo was the island that was most damaged by the tsunami in *Raa Atoll*, despite its infrastructure being relatively stronger than some other islands affected by the tsunami. The extent of destruction was partly due to congestion of buildings and narrowness of roads and pathways. The tsunami claimed three lives. The residents of *Kadholhudhoo* were relocated to four other islands in the atoll. In partnership with Maldivian government, the International Federation of Red Cross and Red Crescent Societies developed a previously uninhabited island of *Dhuvaafaru* on the east side of *Raa Atoll* for the *Kadholhudhoo* community. The community was relocated in December 2008. *Dhuvaafaru* is further away from the usual fish catch areas for the *Kadholhudhoo* fishermen. Presently the fishermen travel to *Kadholhudhoo* and camp there for the daily fish catch. They have set up fish salting processes in *Kadholhudhoo*,

which means they are away from their families for longer periods than before (H. Hussain, personal communication, February 01, 2009).

Thaa Vilifushi

Vilifushi is one of 13 inhabited islands in *Thaa Atoll* of Maldives which is located 200 kilometres south of the capital island Malé. It is one of the most populated islands in *Thaa Atoll* with 1,883 residents in 2004 (MPND, 2016). The island has a land area of 13.5 hectares. The island is lush green with plentiful trees of many varieties of fruits such as bread fruit and mango. The community lives in good housing structures built of cement bricks with ensuite bathrooms and boundary walls, which are of a high standard comparable to most islands. The island has three registered educational establishments with one secondary school teaching up to Grade 10. A well-established island level health centre has been providing health services to the community for several years (I. Shameem, personal communication, March 20, 2011).

The Island Life

Vilifushi is a major fishing island where men travel away to fish for almost a week. Many men also work away in the capital Malé and tourist resorts. The population that resides on the island consists of mostly children and women. Some of the women are involved in fish processing, thatch weaving, rope making, sewing and in addition earn income by growing fruits and vegetables in their home gardens. The women largely look after the children and raise funds for the island development activities (I. Shameem, personal communication, March 20, 2011).

The women of *Vilifushi* are early risers. Before dawn they will sweep their compounds and get the children ready for school. After dropping off the children at school, they often sit outside and prepare for communal lunch. Usually in the evenings women play communal games till dusk. After the children go to bed, some watch television while others meet and discuss issues about their lives. When the men return to the island after work, they often socialise with friends in the communal areas on the beach. Women always wear the veil if they are attending any social or public functions. *Vilifushi* women do not make their own decisions but rely on what the men decide (I. Shameem, personal communication, March 20, 2011).

The island consists of three main families, all connected through marriage. This might be the reason for the tight knit community that is remarkable for its unity and caring. The women work together in groups and often will bring out their breakfasts and eat together. The closeness of the community is evident as it is the norm for *Vilifushi* people to check on their neighbours before eating their own meals. The *Katheeb* who oversees the island is well respected as he was the teacher of most of the adults on the island. In major events such as dredging the harbour when workers must be provided with meals it is the wife of the *Katheeb* who will lead the women's group in these tasks (I. Shameem, personal communication, March 20, 2011).

Tsunami Impact

Vilifushi was one of the hardest hit individual islands in the Maldives and was completely washed over by the tsunami. The tsunami claimed 18 lives in Maldives of which 10 were found on the island; five were found on other islands and three remain missing. The entire settlement of homes, public service utilities, private businesses and livelihood were destroyed. Most inhabitants survived by climbing onto the roof their houses and clinging to trees. It was one of the islands that was completely flooded with extensive damage, resulting in all residents being relocated. The leaders from the island community played a key leadership role in relocating the residents and making decisions about their future. The community got dispersed over nine islands with 71% living in temporary shelters in *Buruni* in the same atoll. *Buruni* is not a fishing island; it has a smaller population, much bush land, limited infrastructure for education and health, and no fisheries infrastructure. With these challenges the community leaders were determined to be resettled back to *Vilifushi*. The island was redeveloped with the assistance of British Red Cross as a safe island and the residents resettled in 2009. (H. Hussain, personal communication, February 01, 2009).

Meemu Madifushi

Madifushi is one of the smallest communities in *Meemu Atoll* and is located 139 kilometres south-east of the capital island, Malé. The island is situated in the north-east corner of the atoll and is one of nine inhabited islands. There were 204 residents in 2004 (MPND, 2016). The land area of the island is 15.6 hectares. It is abundant with coconut palms. The houses are good solid stone-built structures, clean and well organised. Ancestrally, the island had a single family, which explains the close

relationships in the community that exist to this day. *Madifushi* is a very small community and took steps to benefit from being a part of a larger community; a sand bank road was being built to connect *Madifushi* to the nearby island of *Raiymandhoo* when the tsunami struck (A. Matheen, personal communication, February 05, 2011).

Island Life

Madifushi men go away to work on other islands. They work in tourist resorts, or as carpenters and a few in the fisheries sector. They return after four to five months. There is no secondary educational facility and children go away to live on other islands for schooling. The island community has a strong kinship and both men and women participate together in activities organised by the Atoll and on island development activities. Fish is a staple food and fish catches are shared amongst the community. The togetherness of the island community was under the leadership of two *Katheeb*s who have a very good relationship with the community.

Madifushi people have a strong religious faith. They rise early for *Fajr* prayers. The women clean the streets before dawn and the entire island is cleaned twice a month. They also make use of the abundant coconut palm trees for thatch weaving. Families work together and share the profit. In the evenings women play games such as the traditional racket and ball game of *bashi*. They also often enjoy cultural dances such as *badiyaa jehun* or *dhadi jehun*. At night it is common for the women to gather together to watch television or sit and talk. Geographically the island is situated in an isolated corner of the nation, hence they do not get many visitors, but when people visit they are warmly welcomed (A. Matheen, personal communication, February 05, 2011).

Tsunami Impact

In the December 2004 tsunami, the infrastructure on *Madifushi* was destroyed and the residents were externally displaced to another island. Three lives were lost as a result of the tsunami. When the waves hit *Madifushi*, the residents decided to cross over to the neighbouring *Raiymandhoo* along the man-made sand bank road, which collapsed soon after they crossed over. Immediately after the disaster *Madifushi* people lived in the host community, *Raiymandhoo*.

The *Kuda Katheeb* is a young dynamic man with visions of development for the island community. The *Kuda Katheeb* thought the best option for the island community would be to relocate to another island where there were more developmental opportunities. Of the possible islands offered by the government and other prominent Maldivians, the island of *Maamigili* in *Alif Dhaalu Atoll* was selected after discussion amongst the island community, some of whom did not want to leave *Madifushi* but eventually the whole island agreed to relocate. *Maamigili* is 106 kilometres south-west of the capital island, Malé, and is surrounded by tourist resorts. The *Maamigili* community has been a rich community for several years. A prominent businessman invested in the island's development. These were some factors that attracted *Madifushi* people to relocate and they resettled in *Maamigili* in early 2005 (H. Hussain, personal communication, February 01, 2009).

Dhaalu Gemendhoo

Gemendhoo is one of the eight islands in *Dhaalu Atoll* which is 161 kilometres south-west of capital Malé. There were 322 residents (MPND, 2016) in 2004 on a land area of six hectares. The island is built on a coral bank of reef encircled by a small white sandy beach, with hardly any lagoon surrounding the island. It is a small congested island full of houses with hardly any vegetation. The community lives in well-built housing structures in traditional styles, with sanitation facilities separate from the main house. The island has a school and an island health centre (I. Afeef, personal communication, February 15, 2011).

Island Life

Traditionally *Gemendhoo* is a fishing community. There are no close fish catchment areas and the men go away fishing for lengthy periods. After the introduction of tourism, quite a few men took jobs in the tourism sector and worked away. There is an additional group of men who are seafarers, who work far away from home for lengthy periods. Hence, for most of the year older men, women and children reside in *Gemendhoo*. Men usually return home once or twice a year on festive occasions like Eid or religious occasions such as Ramazan (I. Afeef, personal communication, February 15, 2011).

Gemendhoo has numerous social issues as a result of overcrowding and lifestyle. Homosexuality is common. The islanders believe it is a result of employment where men work in isolation in predominantly male work environments and females are left behind on the island. Sexual abuse of children is also an increasing issue. Prior to the 1980s education was not considered important. The religious values of Islam are low in the community. Although men's attendance at Friday prayers is a religious duty and cultural custom in all parts of Maldives, in *Gemendhoo* it is not the norm (I. Afeef, personal communication, February 15, 2011).

The *Gemendhoo* community has an average economy. Residents are active, energetic and lively, rising early and sending children to school as a priority. The island community works together on island development projects and is led by a *Katheeb* who has a very good relationship with the community. Even if he is away from the island, he will regularly make contact to check the welfare of the residents. The lifestyle of women is very different from other islands. The women do tasks normally done by men. They fish in the lagoons, climb trees and pluck fruits and even climb the long palm trees to get coconuts. The power generators are also managed by women (I. Afeef, personal communication, February 15, 2011).

In the 1980s as a community project the young men of the island built a cement bridge and connected *Gemendhoo* to the nearby island, *Thabulhaidhoo*, which created an opportunity for women to increase their economic activities. Every day women crossed over to *Thabulhaidhoo* to collect coconut palm leaves and started thatch weaving and making rope from coconut husks. Some sowed vegetable and fruit farming plots while others opted for poultry farming (I. Afeef, personal communication, February 15, 2011).

Tsunami Impact

The *Gemendhoo* settlement and livelihood were completely destroyed by the tsunami. There were eight deaths. When the tsunami struck, most women were on the island of *Thabulhaidhoo*. Although some survived by climbing trees and coconut palms, most were washed away into the lagoon and the deep ocean. The lifestyle of women had made them strong swimmers, which helped them to survive and save many others. The young school-going boys of the island were quick to punt *bohkuraas* out to rescue

many who were washed away. Other islands in the atoll responded with assistance and the *Gemendhoo* community travelled to the nearby island of *Kudahuvadho* where they were warmly welcomed. They were taken into the homes of *Kudahuvadho* people, which they shared for some time. Then they moved into government built shared temporary shelters. The International Federation of Red Cross provided permanent houses in one section of *Kudahuvadho* and the *Gemendhoo* community were resettled in 2009 (I. Afeef, personal communication, February 15, 2011).

Participants

The methodological approach of case study provides the opportunity for a multi-perspective analysis by considering the perspective of the main subjects and the other relevant groups and interaction between them (Tellis (1997b)). Hence, the principle participant group for the study were women from 4 selected islands.

The sampling approach to access these women was snowball sampling. Snowball sampling is described by Bowling (2002) as a recruitment strategy in which access to the target population is identified through an initial group of respondents. The female informants were accessed as suggested by Noy (2008), through contact information provided by other informants. The initial interactions were made with the *Katheeb* or the Island Health Worker who provided contact information for significant women in the communities. These women then introduced other women to the researcher.

In case study research the researcher often utilizes the perceptions, interpretations, arguments, explanations and prejudices of several groups of stakeholders (Swanborn, 2010). In order to achieve this, data was also collected from people who assisted in rebuilding the lives of these women. These data sources were categorized as Family, Disaster Management Centre, Health Professionals, Voluntary organizations and the Army. Throughout this thesis the use of capitals will indicate the categorized data sources and are collectively referred as others. The sampling strategy that was used to access these groups was purposeful sampling. Purposeful sampling allows the selection of people according to the needs of the study (Coyne, 1997). Participants who were thought to be best able to inform the research were invited to participate in the study. This strategy was used as suggested by Suri (2011) to allow access to key informants who helped in identifying information rich cases. The groups were

approached with ideas and opinions from the women (Swanborn (2010) in order to better understand the accounts of the phenomenon under study. Sample size was not pre-determined, and the principal of theoretical saturation was applied. Interviews and focus groups were held until saturation was reached, where data was gathered to the ‘point of diminishing returns’ (Bowen, 2008, p. 140) where nothing new was added. Descriptions of the participants of the study are illustrated in Table 1.

Table 1 Description of participants

Participant Groups	Number	Gender
Women	29	29 females
Family Populations of the four selected islands were externally displaced to other islands and were temporarily relocated with host families. Partners of the women and adults aged over 18 years from the extended families were grouped as family.	20 host families 13 partners	17 males 15 females
Voluntary Groups Local and international non-government organizations volunteered and assisted during the recovery and rebuilding phase. They were grouped as voluntary groups.	12	4 males 8 females
Army The National Security Service (NSS) was the government entity which launched the immediate search and rescue and logistics mission. The Coast Guard of NSS visited all the inhabited islands and instigated coordinating centres for clusters of atolls. The NSS played a key role in providing early relief and they were grouped as Army.	13	13 males
Disaster Management Centre The NDMC was initiated by the government after the December 2004 tsunami as a coordinating centre for relief, recovery and rebuilding. The people who worked in NDMC were grouped as the Disaster Management Centre.	5	4 males 1 female
Health Professionals People injured by the tsunami were immediately attended by health workers on the islands. They also played a vital role in providing psychosocial support for the communities. In addition, doctors and nurses from Malé visited the islands with the teams from NSS. The island health workers and the medical teams were grouped as Health Professionals	20	4 males 16 females

Figure 2 illustrates the research design of the study demonstrating the sampling and the framework underpinning the data collection process.

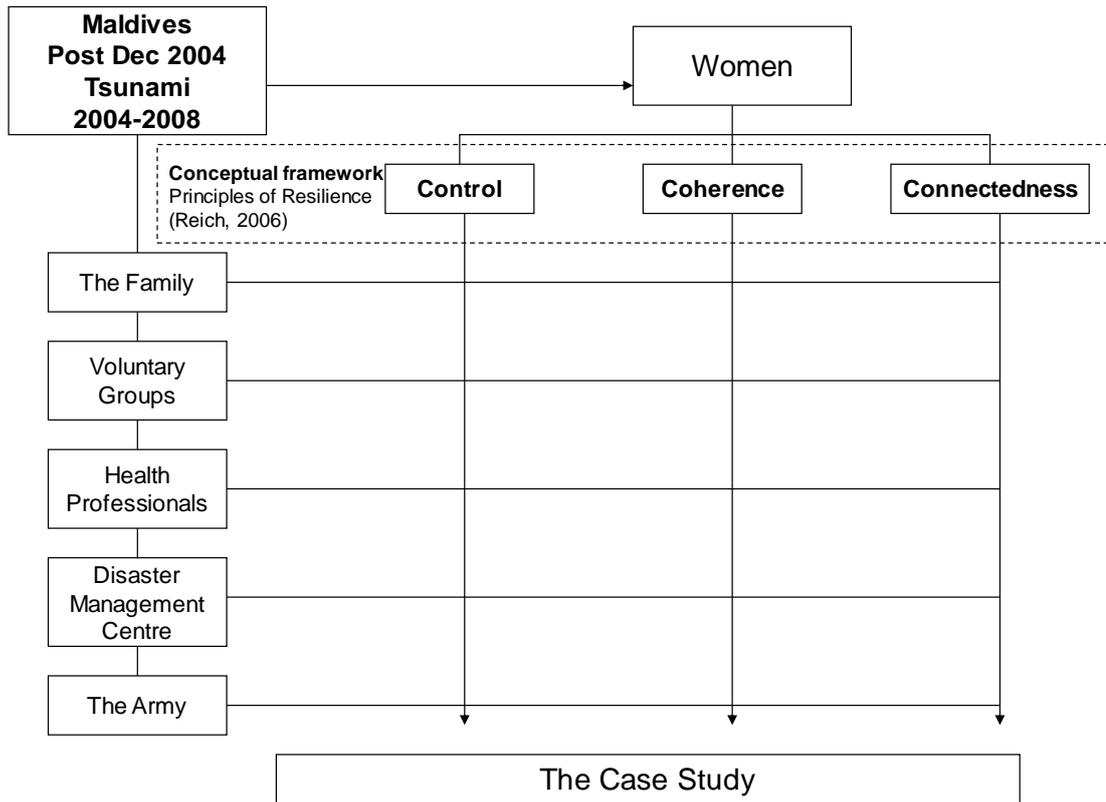


Figure 2. Research design.

Data Collection Methods

The data collection process was guided by Yin’s (2009) three principles of data collection in case study methodology. The principles are (a) using multiple sources of evidence; (b) creating a case study database; and (c) maintaining a chain of evidence (Yin, 2009, p. 101). In case study methodology data comes from many sources of evidence, which is considered a major strength (Yin, 2009). Using multiple sources of evidence enabled the development of ‘converging lines of inquiry’ and the process for triangulation and corroboration (Yin, 2009, p. 117). The field work was conducted from January to March 2009. The aim of the field work was to have direct and personal contact with the study participants in their own environment to personally understand their realities (Patton, 2002).

The field work journey commenced from *Maamigilli* in *Alif Dhaalu Atoll* where the residents of *Madifushi* were settled. Data from women, Families, Health Professionals and Volunteers were gathered. The next setting was *Kudahuvadho* in *Dhaalu Atoll*

where the residents of *Gemendhoo* were settled. Data from women, and Families of *Gemendhoo* were gathered. Additionally, data from the Health Professionals and Volunteers from *Kudahuvadho* and *Gemendhoo* who assisted the people of *Gemendhoo* were also collected. The next destination was *Buruni* in *Thaa Atoll* where the residents of *Vilifushi* were living. Data from women, Families, host families and Health Professionals were gathered. The next setting was *Dhuvaafaru* in *Raa Atoll* where the residents of *Kadholhudhoo* were settled. Data from women and their Families were gathered. In order to collect data from the host families the nearby island of *Ugoofaar* was the next destination. In this island, Health Professionals who assisted the *Kadholhudhoo* residents were accessed. Data from other groups of Army, Voluntary groups and Disaster Management Centre were accessed from the capital island, Malé. Figure 3 is a map of the journey that comprised the field work.

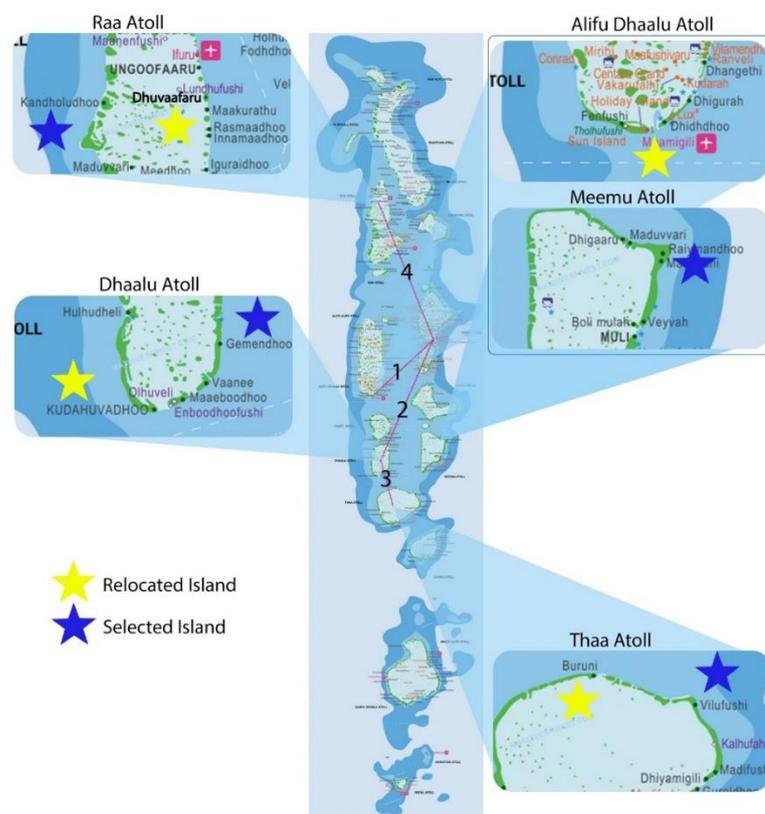


Figure 3. Field work journeys.

The sources of evidence that were gathered for the case study are interviews, participant observation and documentation. A description of the data collection methods used in the study follows.

Interviews

Interviewing is considered as one of the most important sources of case study information (Yin, 2009). To support the case study methodology, in this study , interviews were guided conversations rather than structured questions (Yin, 2009). Unstructured dialogues are a type of interviewing (Britten, 2006).

Episodic interviewing was selected for this study because they made the path of constructing realities more accessible than methods that aim at abstract concepts and more stringent answers. Episodic interviews elucidate context related information in a narrative form and are closer to the experiences and their generative contexts (Flick, 2014). In this form of interviewing the focus is on episodes where the participants has had experience that is relevant to the question of the study (Flick, 2014). In order to achieve this in the interviewing process the research line of inquiry was guided by the research objectives which was developed from the case study protocol, and the conversational questions allowed an unbiased view that supported the main line of inquiry (Yin, 2009). The main component of this form of interview is that the researcher persistently questions the participant to present narratives of situations (Flick, 2014). In order to guide the participants to the domains of the required narratives an interview protocol (Appendix A) was developed as suggested by Flick (2014). The interview protocol reflected the broader study protocol and was not a list of actual questions that was verbalized to the participants, instead it represented the conversational guide (Yin, 2010).

Focus groups was the method of data collection planned for the study. Focus groups involve a type of unstructured interviewing where a group of people known to have had a certain experience is interviewed (Bryman, 2004). After the first focus group, the data collection method was changed to suit the participant groups. Interviewing groups of people in these small island communities was a difficult challenge, as noted by Yin (2010), when trying to induce all members to express their opinion in an atmosphere of strong domineering personalities. There was a risk in these focus groups that one or two people would dominate the discussion. When it was realised that the collection of individual experiences would not be achieved, the interview strategy was changed to semi-structured episodic interviewing (Flick (2014).

The researcher conducted all interviews in Dhivehi and English as preferred by the interviewee. Dhivehi is the local language of Maldives and the researcher is fluent in the language. During the field work it was observed that each island's response to the disaster was different, so data was collected for each setting until saturation was achieved. This was a decision that had to be made during the field work, because the original research plan assumed all islands would have responded similarly to the disaster given that Maldives has a homogenous population. Hence a sample of 103 informants was interviewed, of which 2 were in the English language. The interviews occurred at a time convenient to the participants in their own homes or workplaces. Written consent was obtained prior to commencing each interview (Appendix B) and the women participants were also asked to provide some demographic information (Appendix C).

To avoid the need of taking detailed notes (Herbert J. Rubin & Rubin, 2005) all interviews were recorded using a digital recorder. In order to avoid any distraction and influence on what the participant said, the digital recorder was made as unobtrusive as possible (Herbert J. Rubin & Rubin, 2005). Interviews were commenced with a few minutes of casual chat to build up a rapport (Herbert J. Rubin & Rubin, 2005) with general discussions of their lives, moving on to how the disaster unfolded. The conversation of a major traumatic event was highly stressful experience for most participants. Showing empathy to the emotional illustrations helped set the tone of the discussions (Herbert J. Rubin & Rubin, 2005). This progressed into more sensitive and difficult questions which were then toned down from the emotional high to maintain the openness of the discussion (Herbert J. Rubin & Rubin, 2005). The interviews lasted from 10 to 45 minutes. Five interviews had to be paused when the participants became distressed and the researcher offered to terminate the interview, but the participants wished to continue. In the planning phase of the study counselling support (Appendix D) was arranged for such potential incidences but this offer was declined.

Participant observation

Integrating all senses into observations in the natural setting is a methodically systematized qualitative research application for data collection (Flick, 2014). Participant observation is a special form of observation in which the researcher is not

merely a passive observer but assumes a variety of roles by participating in the events within the case study settings (Yin, 2009). The researcher stayed with the communities in the study islands for 5 to 7 days to gather evidence, which created the opportunity for observations (Yin, (2009). These observations were undertaken in the natural setting that the women lived in. The visits were an instrument for reflecting on the process of being familiar and gain an insight into the study setting (Flick, 2014).

The typical way of documenting observations in qualitative research is the researchers' notes (Flick, 2014). Throughout the visits extensive field notes and a reflective diary were maintained to record specific observations of participants and note events that influenced the study. The field notes included observations from formal and casual data collection activities (Yin, 2009), as well as instances where immediate and personal responses to events and beliefs affected the interpretation of reality. Hewitt-Taylor (2002, p. 35) noted that the data collection process in case study methodology requires both "reflection and reflexivity". The field observations combined with other sources of data collection methods allowed the reflection and reflexivity process by permitting the links and comparisons to be made between what is reported and what occurred (Hewitt-Taylor, 2002).

Review of documentation

Documentary evidence is relevant to every case study topic and the documents gathered for the study provided valuable contextual details (Hewitt-Taylor, 2002; Yin, 2009). The documents were used to corroborate and augment evidence to contextualize the responses to research questions provided by other methods of data collection (Hewitt-Taylor, 2002; Yin, 2009). The documents that were used for this study are newspaper clippings, administrative documents and written reports of the event.

Newspaper clippings

The archival records of a local newspaper, *Haveeru*, was searched from 26 December 2004 to 26 December 2008 for articles that had the words 'tsunami' and '*Bodu Raalhu*' (Big Wave) in the article title. This search returned 543 articles from which 12 were excluded as they were reports of what occurred during the search period. Ministry of Information, Arts and Culture, Maldives has an archival database of daily minutes of the important events that happened in the country. The daily archives of this database

from January 2005 to June 2008 were searched using the same strategy with zero returns. The archival record had no title with the search terms, hence was excluded from the study.

Administrative documents

The archived administrative documents in the NDMC were examined for documents relating to the four islands. The administrative documents returned 55 documents related to the study settings which included meeting minutes, letters and lists of participants in various forums. None of these documents could be matched to the conceptual framework of the study or the research objectives, hence they were excluded from the study.

Data Analysis

Qualitative data analysis transforms data into findings by interpretation and classification of text to make implicit and explicit levels of meaning with the aim of creating generalized statements (Flick, 2014; Patton, 2002). In the course of field work, concepts on the direction of the analysis started emerging. The field notes of the insights and the interpretations of the collected data created the scene for what was happening in the settings and what it meant (Patton, 2002). This interim analysis allowed the interview protocol to be refined and emerging areas of inquiry to be pursued (Pope, Ziebland, & Mays, 2000).

In Yin (2009, p. 130) view, an analytic strategy should be used as a guide to ‘crafting’ the case study as the data itself will not do it. Further, the strategy will assist in looking at the evidence justly, produce convincing analytical conclusions and rule out alternative explanations. One of the analytical strategies outlined by Yin (2009, p. 130) is relying on theoretical propositions. In this present study the research objective and the conceptual framework were used as theoretical propositions to guide the analysis.

An archival data base (Appendix E) was created of all the evidence gathered. The aim of this action was as suggested by Yin (2009) as a means of organizing and documenting the numerous sources of evidence, which were displayed visually in a matrix with defined rows and columns that presented the information systematically (Miles & Huberman, 1994). The data sources and sources of evidence were arranged

in a matrix for data management and analysis. Each cell in the matrix was analysed separately. This process, as outlined by Yin (2009), enabled adequate citations to specific sources of evidence. In addition a chain of evidence was maintained to increase the reliability of the information that was gathered (Yin, 2009).

The narrative interviews and the documents that were gathered were managed using NVivo 12 software (QSR International Pty Ltd; Doncaster, Victoria, Australia) which assisted in the analysis of the data. The recorded interviews, newspaper clippings, administrative documents and written reports were imported into NVivo as electronic files. In the analysis stage, to ensure the validity of the findings, the information obtained in Dhivehi was translated to English (Su & Parham, 2002). This translational process was required as the target language for publication was different from the source data (Nurjannah, Mills, Park, & Usher, 2014).

The translation of the data produced the challenge of generating meaning-based translations rather than direct translations (Noreen Esposito, 2001). The multilingual translation process was balanced (Larkin, de Casterlé, & Schotsmans, 2007) between the conceptual similarity and the method. The two languages did not permit ‘direct lexical equivalence’ and was aimed at getting a ‘conceptual equivalence without concern for lexical comparability’ (Duetscher, 1968; Whyte & Braun, 1968; Bassnett-McGuire, 1980; Overing, 1987; Broadfoot & Osborn, 1993; Temple, 1997 cited in (Birbili, 2000). The cultural competence of the translator offers the context for the interpretations of the research phenomenon in transcultural research (Chen & Boore, 2010; Jones & Boyle, 2011). Further, Lange (2002) states that the quality of translation depends on the cultural knowledge and linguistic skills of the person who is communicating from one language to another. Additionally, the translator should be bilingual and fluent in both source and target languages and have a knowledge of the participants (Birbili (2000); Chen and Boore (2010). The researcher, who was proficient in both Dhivehi and English and who was familiar with the intricacies of the culture (being of Maldivian ethnicity), conducted the interviews as well as translated them.

It offered the researcher the opportunity of using the experience of translating to discuss points where translation had to be paused and thought given to the meaning of

the original text (Temple, 2002). The researcher and translator role offered significant opportunities for close attention to cross cultural meanings and interpretations and addressed the problems of equivalence meanings within the research process (Temple, 2002). It also enabled the researcher to identify subjective inferences of terms and reveal the cultural context within words were being used (Birbili, 2000). The translation process included forward and backward translation until it made sense in both source and target languages to ensure the accuracy of the translation process (Chen & Boore, 2010; Nurjannah et al., 2014). Translated direct quotations from the data were used minimally (Birbili (2000) as there was a greater chance of information being lost from the original. The following sections describe the analysis sequences.

Sequence 1 analysis

The translated and transcribed interviews generated a large amount of unstructured text. In order to provide coherence to this unstructured text the participant groups and research objectives were arranged in a matrix. The resultant matrix is illustrated in Table 2.

Table 2: Sequence 1 data analysis matrix

	Interview Data Sources					
	Women	Family	Voluntary Groups	Army	DMC	Health Professionals
Control						
Coherence						
Connectedness						
Attitude and behaviour						

When the interview data was charted and sorted by the participant groups it set the scene for what the data meant. The emergent outlook of the data was congruent with what was observed in the field visits, where it was found that people in the four islands reacted differently to the disaster. The first group of participants analysed were women as they were the key informants. The interview data from the women were arranged in a matrix by islands and research objectives. Each cell in the matrix was examined for codes and categories attached to the text using the analysis process of open coding. The aim of this first step was to express data and phenomena in the form of concepts (Flick, 2014). Annotations or codes were attached to short sequences of words that

classify expressions. During this process of attaching codes the least suitable cases were abandoned. The open coding of the women's interviews about their experience of the disasters demonstrated Strauss & Corbin's (1998) theory of conditional/consequential matrix. The data showed that women first thought about themselves, which progressed to thinking of their children, followed by family, island community and host community. This was surrounded by internal and external thoughts. The interlinking responses initiated a sequence of conditions and consequences, the interplay resulting in how they responded to the disaster and when to rebuild their lives. These domains guided the next phases of the data analysis.

Sequence 2 analysis

The domains from the Sequence 1 analysis guided the matrix development of Sequence 2 analysis. The domains were used as labels to further index the data under each research objective. Each cell in the matrix was analysed using a form of qualitative analysis interpreted by (Ritchie & Spencer, 1994, 2002) as 'framework'. Framework analysis is a deductive approach by which data analysis starts from the pre-determined objectives of the study (Pope et al., 2000). The framework analysis consisted of interconnecting five stages of familiarization, identifying a thematic framework, indexing, charting and mapping, and interpretation. Each of these analytical stages is described below.

Familiarization

In order to obtain an overview of the gathered data before the process of sifting and sorting data, the interviews were listened to gain a sense of familiarization (Ritchie & Spencer, 1994). The process of familiarization involved engagement by immersion into the data (Pope et al., 2000). Repeatedly listening to the interviews, reading the translated and transcribed documents and studying the observational notes helped in comprehending the range and diversity of the data. This process of abstraction and conceptualisation, as identified by Ritchie and Spencer (1994) assisted in identifying the key ideas and recurrent themes that were significant among the respondents.

Identifying a thematic framework

The emergent key issues and themes from the reviewed selected material provided a thematic framework within which the data was sorted and sifted (Ritchie & Spencer,

1994, 2002). The research objectives of the study and the emergent issues from the respondents and the recurrent analytical themes directed this process of constructing the framework. The initial version of the index was mainly descriptive and embedded with priori issues (Ritchie & Spencer, 1994, 2002). In this study the embedded priori issues were the concepts from the theoretical/conceptual framework, being control, coherence and connectedness. They were used as preliminary codes. An example of a resultant thematic matrix is illustrated in Table 3.

Table 3: Sequence 2 data analysis matrix

		Islands			
		Gemendhoo	Madifushi	Vilifushi	Kadholhudhoo
Control	Self				
	Children				
	Family				
	Island community				
	Host community				
	Internal thoughts				
	External thoughts				

These concepts were applied to a few transcripts, which allowed the categories to be refined and responsive to emergent and analytical themes (Ritchie & Spencer, 1994, 2002). During these refinements the data was searched for conceptualizations that captured and represented diversity (Ritchie & Spencer, 1994, 2002). Developing and refining the thematic framework involved logical and intuitive thinking. It involved making judgements about meaning, significance of issues and implicit connections between ideas (Ritchie and Spencer (2002). Some of the emergent themes from this process were issues that had been identified in the original research question. At the end of this stage a detailed index of the data was created that sorted the data into practicable sections of text that could be retrieved for exploration (Pope et al., 2000).

Indexing

Indexing was the process implemented for labelling of data into groups of textual sections for systematic retrieval and exploration within the thematic framework, as suggested by Ritchie and Spencer (2002). This process involved making various judgements as to the meaning and significance of data. Each passage was inferred and the meaning decided as it stood in the context of the interview as a whole, and the

appropriate indexing reference assigned (Ritchie & Spencer, 1994, 2002). The sample consisted of four islands and separate indexes were developed for each island to assist in easier identification of common and opposing themes (Ritchie and Spencer (2002).

Charting

Charting is building up a picture of the data as a whole by lifting away the data from the original context and rearranging it according to the appropriate thematic reference, with considerations of the range of attitude and experiences of each issue (Ritchie & Spencer, 1994, 2002). For this step, charts were developed with abstraction and synthesis with headings and subheadings (Ritchie and Spencer (2002). The cases were kept in the same order for each subject chart, rendering the whole data set for each case easily reviewable.

Mapping and interpretation

In this stage, data was searched for patterns, associations, concepts and explanations with assistance from the visual displays and plots. The data that was sifted and charted according to core themes was pulled together by the key characteristics and interpreted as a whole (Ritchie & Spencer, 1994, 2002). The aim was to define concepts, map the range and nature of phenomena, create typologies, find associations within the data and provide explanations. The charts and field notes were reviewed, the perceptions, accounts and experiences were compared and contrasted, then searched for patterns and connections and, finally, explanations were sought internally within the data (Ritchie & Spencer, 1994, 2002). The overall picture building of the data was not just aggregating patterns but weighing up the dynamics of issues and creating a structure rather than a multiplicity of evidence. This phase of analysis showed that the women's experience of the December 2004 tsunami was understood in four periods or timelines of events: tsunami, immediate, intermediate and longer term.

Sequence 3 analysis

The Sequence 3 analysis focused on analysing the material from interviews with other groups who assisted the women to rebuild their lives. The key themes from Sequence 1 were used to drive this analysis. The transcribed interview data text was content analysed for these key themes and other recurring themes. Content analysis is a qualitative data reduction method and sense-making effort by reducing the material by

sifting words into fewer content related categories (Elo & Kyngäs, 2008; Flick, 2014; Patton, 2002).

The digital files of the interviews were imported into NVivo 12 software (QSR International Pty Ltd; Doncaster, Victoria, Australia) as digital WAV (Waveform Audio File Format) files, then translated and transcribed. In the first step the material was defined by selecting the translated texts that were relevant for answering the research question (Flick, 2014). Using a deductive analysis approach, these selected texts were searched for the pre-identified themes from the Sequence 2 analysis (Patton, 2002). During this process additional meanings were searched and nodes assigned as the text was read. This was the first stage of organizing the data into key themes and other data topics (Patton, 2002). The focus of this stage was to develop a coding framework by identifying a precise system of categories (Flick, 2014).

Next, a new reading was undertaken to formally code the categories by analysing for ‘convergence’, what fitted together (Patton, 2002, p. 465). The data was assessed for ‘recurring regularities’ and evaluated for ‘internal homogeneity’ and ‘external heterogeneity’ (Patton, 2002, p. 465). Internal homogeneity was judged by appraising the extent to which the data belong to a category held together in a meaningful way. External heterogeneity was evaluated by examining the extent of the data in which it distinctly differed among categories. The data was then analysed for ‘divergence’ to stencil out patterns or categories (Patton, 2002, p. 466).

The divergence process focused on building on items of information already known, making connections between different items and proposing new information that ought to fit. The process also included carefully examining the data that did not fit and identifying the deviant cases that did not fit the dominant identified patterns. Many categories and subcategories emerged, which were explored, merged, adjusted and deleted as the assigning of new nodes continued. Finally, thematic maps were created by a visual representation of themes and subthemes and links between them to the research objectives (Flick, 2014).

Sequence 4 analysis

Sequence 4 analysis focused on analysing the 531 newspaper clippings gathered for the study. In order to provide coherence, the documents were coded by timelines

identified in the Sequence 2 analysis, and content analysed using the themes from the previous phases of the analysis. The steps in content analysis described in the Sequence 3 analysis were used and the number of documents was reduced by tabulating the frequency of different events Yin (2009). The resultant themes and subthemes were thematically mapped to the research objectives.

Sequence 5 analysis

The preferred analytical technique for case study methodology is pattern matching logic Yin (2009). Pattern matching logic builds case study data by building an explanation about the case. The pattern matching logic used in the Sequence 5 analysis resulted in a series of ‘iterations’ (Yin, 2009, p. 143). The iterations for this study are:

- The pattern matching commenced in the research design phase when the theoretical framework of resilience was stated as the conceptual framework that built the structure of the study.
- In Sequence 1 analysis, the data from the women’s groups was compared with the theoretical framework.
- In Sequence 2 analysis, the analytical propositions were revised.
- The revised propositions and the theoretical framework were used as a comparison for the other participant groups and other types of data.

The cross-case synthesis identified by Yin (2009) as a technique of analysing case study evidence was the basis of this final stage of analysis. All the key characteristics of data from all the sequence of the analysis were pulled together, mapped and interpreted as a whole (Ritchie & Spencer, 2002). The outputs from the previous analysis sequences were studied to determine whether any meaningful patterns were emerging (Yin, 2009).

The themes from each analysis sequence were displayed in three separate tables of women, others and documents. The charted material of outcomes was then systematically searched for key dimensions. The charts were reviewed for the range and the key dimensions were drawn out to map the range and nature of the phenomena. The three tables were then examined for cross-case patterns for an argumentative interpretation. This process allowed a multi-dimensional analysis and created

typologies where two or more dimensions in the tables were linked at different points. The case of the experiences of the Maldivian women following the December 2004 tsunami was explained by enlightening these typologies and their associations.

Research Rigour

Four tests are generally used to establish the rigour of empirical social research and is applicable to case studies as a form of such research (Yin, 2009). The strategies used in this research to maximise rigour for each of these tests are summarised in Table 4 and discussed below.

Table 4: Summary of the strategies used in the study to ensure rigour

Criteria	Techniques used in this study to address the criteria	Phase of the research
Construct validity	Use multiple sources of evidence for data triangulation	Data collection
	Establish chain of evidence by developing an archival database	Data collection
Internal validity	Used pattern matching as an analytical strategy	Data analysis
	Used explanation building in Sequence 5 analysis	Data analysis
External validity	Use theory in designing the study	Research design
Reliability	Use case study protocol	Data collection
	Develop case study database	Data collection

Construct Validity

In case study methodology construct validity is ‘identifying correct operational measures for the concepts being studied’(Yin, 2009, p. 40). The issue of construct validity in the study is addressed with multiple sources of evidence, providing a means for multiple measures of the same phenomena as well as demonstrating the prospects for data triangulation (Yin, 2009; Yin, 2018). The multiple sources of evidence allowed a convergent line of enquiry by the integration of wide range historical, attitudinal and behavioural issues aimed at corroborating the same fact or phenomena (Patton, 2002; Yin, 2003). In this study, data triangulation was achieved by using different sources of evidence. The direct observations were reported by the women participants and the verbal observations were reported by others who helped them rebuild, while documents were later reports written by others who had obtained the information. By developing these convergent evidences of data triangulation, the

construct validity of the study was strengthened. The second technique used in this study to increase construct validity was developing a chain of evidence during the data collection phase.

Internal Validity

In case study, internal validity is looking to determine causal relationships in which particular conditions are believed to lead to other conditions (Yin, 2009). In this study internal validity was addressed by using pattern matching as an analytic strategy in the final analysis phase. The findings were compared with the empirical theoretical framework of three principles of resilience in all phases of the analysis to see if patterns coincided, helping to strengthen the study's internal validity. As outlined in the Sequence 5 analysis, the series of iterations used in the study to build the explanations of the case contributed to pattern matching which enhanced the internal validity of the study.

External Validity

Yin (2009) states that external validity is defining the domain in which the findings can be generalised beyond the immediate case study. In case study research the role of theory is the basis for analytical generalisation. In this present case study, the theoretical proposition of the purpose of the study and the conceptual framework that went into the initial design of the study, empirically enhanced the findings that formed the groundwork for analytical generalisation. The analytical generalisation of the study that increased the external validity included corroborating, modifying, rejecting the findings by advancing theoretical concepts that were references in the case study design or the new concepts that arose during the analysis.

Reliability

A criterion for assessing qualitative research is reliability (Flick, 2014). In case study methodology, reliability is to demonstrate that the study can be repeated with the same results, not by only replication, but with the goal of minimising biases and errors (Yin, 2009). The issue of reliability was addressed in this study by the development of a case study database and a detailed case study protocol to document the procedures of the research process, to make it as operational as much as possible and so enable replication of the study.

Ethical Considerations

The basic principles of ethical considerations for this study were protecting the human dignity and the rights of all the participants involved in the study. The moral principles of justice, beneficence and respect guided the ethical aspects of the study. The application of these principles was in compliance with the National Statement on Ethical Conduct in Human Research 2007 (Updated March 2014) from the Australian Health Ethics Committee of National Health and Medical Research Council. The statement provides a framework for the significant principles in the ethics of human research to guide the design, review and conduct of such research (National Health and Medical Research Council, the Australian Research Council, & the Australian Vice-Chancellors' Committee, 2007). The research proposal was approved by the Human Research Ethics Committee at Curtin University and Department of National Planning, Malé, Maldives.

Informed consent

In respect for all human beings The National Statement on Ethical Conduct in Human Research requires that all participants provide informed consent in the scope of their capacity in making their own decisions (National Health and Medical Research Council et al., 2007). This legal and ethical requirement has the condition that consent should be given voluntarily on the basis of sufficient information and adequate understanding of the proposed research and implications of participating in it.

In this study all participants were informed about the details of the study verbally and through written information. An information sheet detailing the study was provided with the invitation to participate. Potential participants were given the opportunity to ask questions prior to making the decision. They were also advised that participation was voluntary, and they could withdraw from the study at any time without reason and penalty. All participants who provided written informed consent were offered a copy of their signed consent forms.

Privacy and confidentiality

Privacy and confidentiality of all participants were protected in accordance with the National Statement of Ethical Conduct in Human Research (National Health and Medical Research Council et al., 2007). In the statement privacy refers to restricting

access to personal information in order to protect the participants, while confidentiality requires the researcher to ensure that the information gathered about a participant is not used for purposes other than for which it was given.

In this study, all data collected was de-identified to protect the participants' privacy and confidentiality. A master list was created with a unique numerical code assigned to each participant. The master list was stored in a securely locked filing cabinet only accessible to the researcher. The data and completed consent forms were kept separately to prevent the matching of numerical codes to the participant's personal information. Interview transcripts and field notes were identified only with the numerical code. The data is reported in general terms and no reference is made to the identity of any participant. In reporting of results all information linking comments to the specific participants are kept confidential. Direct quotations are not associated with any participants by name or personal information.

Data storage

The digital interviews recorded with permission were immediately transferred to a password protected laptop computer and erased from the recording device. All electronic data were password protected and only accessible to the researcher. Transcribed documents and audio recording will be retained in secure storage at Curtin University for a mandated period of five years from the date of last publication, after which the recordings will be erased, and paper documents destroyed.

Minimization of harm

The National Statement on Ethical Conduct of Human research requires that risk of harm to research participants and others be assessed and a risk management process be included in the research design (National Health and Medical Research Council et al., 2007). The study was based on a significantly distressing event in the lives of the participants and the potential risk of psychological harm was identified. Prompt access to counselling services of Ministry of Youth and Sports, Maldives was arranged prior to commencing the field work.

The risk that participants may become distressed during interviews was anticipated. This risk eventuated in five interviews. Two participants expressed the desire to

continue with the interviews, but the other three elected to pause for some time to continue later. The participants were given immediate emotional support and offered access to the counselling services, which they declined.

Chapter Summary

Chapter 4 has described the rationale for selecting a qualitative approach and using a case study methodology to understand the complex social phenomenon of women's experience of the December 2004 tsunami. The chapter has provided the aims and objectives of the study and the study design. The data collection methods and analysis methods have been described. The chapter has also illustrated the strategies utilised to ensure research rigour. Finally, the outline of the ethical considerations was discussed. The findings from the study are presented in chapters 5, 6 and 7.

Chapter Five: Findings of Sequence 1 and Sequence 2 Analyses

Introduction

This chapter describes the findings of the Sequence 1 and Sequence 2 analyses. These two phases of inquiry include the findings from the interviews of the women, who are the key informants of the study. The Sequence 1 analysis was guided by the matrix developed from the research objectives and the women from the four islands. The results are presented as domains, which guided the subsequent data analysis phases of the study.

The next section of the chapter focuses on the findings from the Sequence 2 analysis. The matrix developed from the domains in Sequence 1 and the women from the four islands guided the analysis of the results. The results of this sequence are presented as findings of the domains under each research objective. The first research objective presents the analysis of the factors that enabled the women to achieve a sense of personal control. The evaluation of the influences on the women's sense of personal coherence emerges from research objective two. The third research objective examines the strategies that women used to achieve a sense of personal connectedness. The fourth objective describes the attitudes and behaviours of others towards the women's experiences. The last objective is the findings of the perception of changes in the women's role.

Sequence 1 Analysis

The Sequence 1 analysis of the interviews of the women found that the interview data can be best explained by seven domains: self, children, family, island community, host community, internal thoughts and external thoughts. The domains demonstrated different layers of generality from the micro personal level to the general broader macro levels. The analysis showed that the women first focused on the domain of self, then the domains of children, family, island and host community. These five domains are surrounded by two other domains: internal thoughts and thoughts about external factors. Each domain is related to other domains and forms a context or condition for the other levels. The findings showed that an explanation of the phenomenon of resiliency of women in disasters can be traced through these domains. Hence, these domains assisted in building the framework for the analysis of the data in the

subsequent phases. A summary of the findings of the Phase 1 analysis is summarized in Figure 4.

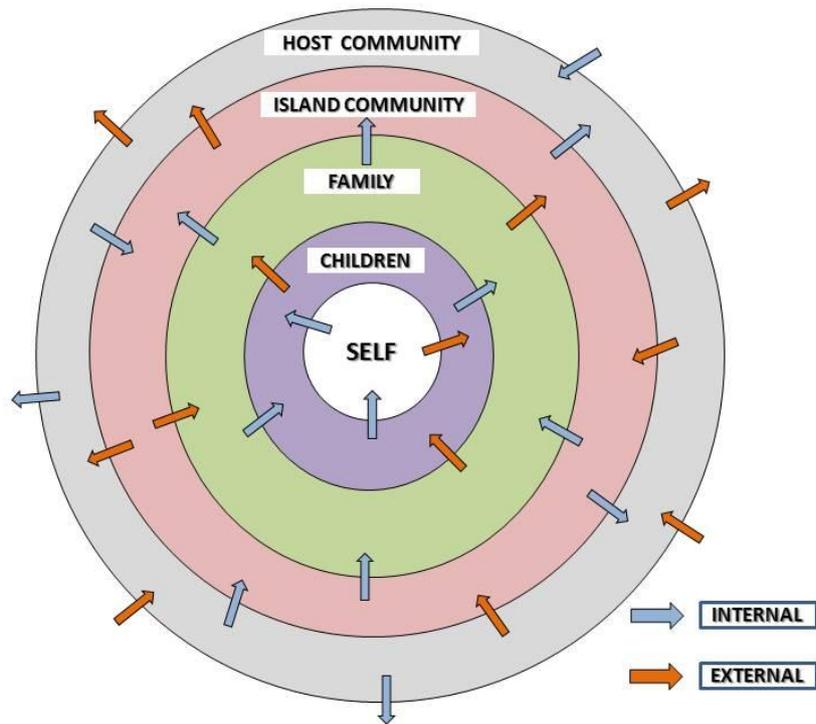


Figure 4. Summary of Sequence 1 analysis.

Sequence 2 Analysis

The Sequence 2 analysis of the data showed that the women’s experience of the tsunami was understood in periods of timelines of events. There were four distinct timelines:

- Tsunami, the phase of the panic of the disaster.
- Immediate problems and responses, the first week where the women sought basic survival elements for the family.
- Intermediate, the first year where the women adapted to changing circumstances.
- Longer term, the first five years where the women created a new life.

The analysis of the women’s interviews is detailed under these four timelines.

Tsunami: – The panic

Control

The analysis of the factors that enabled the affected women to achieve a sense of personal control in the tsunami phase resulted in three main themes. They are loss of personal control, regaining personal control and coping. The findings are stated under each main theme.

Loss of personal control

In the panic and confusion of the disaster, the women lost their personal control at various circumstances. The domains that emerged in this theme are internal, self, external, family, and children. The women gave vivid descriptions of how they struggled to survive, how they ran and climbed on to anything that they could get hold of, to get away from the rising water. Under those circumstances, they were not able to think rationally. A *Gemendhoo* woman:

The kitchen walls were made of cracked stones and it was not plastered. It was like water coming out of many taps. The kitchen was full of sea water. The dining table was floating. The water was up to the chest of my child. He was crying with desperation and fright. I carried him and was able to come out of the kitchen. We were able to walk a few metres. I don't know what happened. I felt like I was drowning and was pushed with the current and force of the wave. There are two big trees in our garden where we have erected a swing. While I was being carried away, I was able to hold on to one of those trees. Then I managed to get hold of the rope which the swing hung. I got onto the seat of the swing and stood up. Then I took my child and put him up on the tree. I asked him to climb up the tree but he was very hesitant. I was hanging onto the pole between the two trees which the swing hung.

The only island where the women did not describe their fight for survival was *Madifushi*. In this race for survival, the women from all four islands expressed how helpless they were. The group who felt most helpless was *Vilifushi* women. A woman described their plight.

We had empty stomachs. No one decided what to do. No one came to help us. There was no news from anywhere else. Then all of a sudden, my niece started vomiting. But what can we do? The nurses and doctors were in the dhoni. The priority for them was their safety.

In this confused stage of the disaster, the women from all four islands described the loss of resources and the impact that it had on their personal control. Their livelihood was lost in seconds; before their eyes it was washed away into the sea. Apart from *Kadholhudhoo* women most women lost their sense of normality in the disruptions. A few *Vilifushi* women comprehended what was happening around them.

In the turmoil of the disaster, women—with the exception of *Madifushi* women—talked about the events surrounding their children. They lost their personal control of handling the adversity when they were looking for them. A *Kadholhudhoo* woman explained:

The house was completely flooded. I was completely out of my senses. If the children were inside, they could be dead. I asked my brother to jump into the water and look for them. They were not there. I told him to go the mosque and look for them as I could see people walking in that direction. He went and came back very quickly and told that both the children were there. Then only I got a relief.

In the immediate aftermath when the women knew that they were safe and had to control the situation, the women were concerned that they were unable to contact their husbands. This made them feel that they lost the ability to handle the situation. A *Vilifushi* woman said:

When I needed assistance, I thought of my husband. But there was no way of contacting him.

In the island of *Gemendhoo*, a woman felt that she lost her personal control because the island community was left without a leadership.

The Katheeb was away and the person around was Kuda Katheeb. He told us to get into the dhonis and leave the island. There were two dhonis. As

soon as one dhoni was full, he decided to leave to the island of Vaani and we were left behind.

The women from *Vilifushi* and *Kadholhudhoo* reported that in the immediate aftermath of the disaster, victims reverted to primitive actions as a result of losing their personal control. The women described how people looted houses and grabbed food from each other. A *Kadholhudhoo* woman:

When someone brought a bunch of bananas, people were grabbing hold of it and trying to get as many as possible.

Regaining personal control

There were various strategies the women implemented to regain their personal control amidst the panic of the disaster. The tactics emerged in the internal, self, external and children's domains. The women used spiritual resources to help them regain their personal control by reciting the Quran and any other prayers that came to their minds. A *Kadholhudhoo* woman explained:

We all were reciting prayers. The only thing is to believe in Allah and have faith. No matter how much you cry when the time of death comes, we have to go. We cannot stop it. The only thing is to remain calm and think of Allah.

Praying helped them to maintain their personal control. Amidst the chaos, they believed that further waves were prevented by praying.

In the immediate aftermath, the additional strategy used by all the women was to guide the events in their lives. Most women who described the events guided themselves and their family to safety. In *Gemendhoo*, when the water continued to swell and then dry up or recede, the women guided others to stay safe by jumping from *dhoni* to the jetty and vice versa. These women also made decisions to go to nearby islands and community shelters to stay safe. Another woman stated how she persuaded others to leave the island. She said:

I went to the beach and there was only the Kuda Katheeb. I asked him to take us to the nearby island thinking that other islands will not be affected. I cried and begged him for a while.

In guiding the events in their lives, the women of all four islands sought basic needs and started normal prayer routines to establish normality. A *Vilifushi* woman explained:

We had to stay in the dhoni in the scorching sun and heat for about two hours. From the shops, we got some material and made a shade which was a cover for us.

Even during the frantic situation, they were in, the women from all three islands, except *Madifushi*, collected material things that might be of use. Most of the accounts such as these were recounted by *Kadholhudhoo* women. For example:

I was swimming in the water when something caught my feet. It was a book. It looked like it will be of use to someone. I called out to a boy nearby and gave it to him.

Most women of *Kadholhudhoo* remained calm, which enhanced their ability to regain their personal control. It was an inner feeling that they controlled. Reconnecting with children was a way the women of *Madifushi* regained their personal control. A woman who had lost her family was in control of the situation when she reconnected with one of her children. She explained:

I could not find my husband or children. I was just walking in the rubble aimlessly. Then I saw my daughter and her child. They were being swept away in the water when someone grabbed them out of before they were swept into the big ocean. She had abrasions all over. But nothing else mattered as I found one of my children.

Coping

In the disaster stage of the tsunami, the women used coping strategies. This was evident in the domains of self, children, and island community. The main coping means for the women all four islands was expressing emotions. Crying was the emotion that some used to express shock; others cried because of the destruction caused by the disaster. Actions that helped them to cope were detailed, such as actions that took them to safer places. Some women ran for safety into houses, government buildings and on to vessels in the lagoon. Seeking and protecting children was a coping mechanism that gave them reassurance.

Children were protected in all islands except *Vilifushi* and the children were sought by all except by *Gemendhoo* women. Immediately after the disaster the women gathered the children and took them to safety. A *Kadholhudhoo* woman said:

I wanted my children more than the house and the things I had. I waited until the water drained a bit and then jumped off the roof. I had one child with me and the other two were huddled under the stairs. I grabbed them all and headed off to the mosque for safety.

In *Gemendhoo*, some women were helped to cope when the community gave priority to women and children. A *Gemendhoo* woman explained:

It was school holidays, so the older boys were around. They got bohkuraas and first picked up the women and children who were swept away. It made me feel better.

Coherence

The analysis of the aspects that empowered the women to attain a sense of personal coherence in the tsunami phase resulted in five main themes. They are: thoughts, explanations, sense-making, questions, and answers. The findings are stated under each main theme.

Thoughts

The women of all four islands expressed the thoughts that went through their minds in the disaster phase. These thoughts emerged in the domains of self and children. The women described how they thought it was the end of the world. The women of *Vilifushi* spoke most about their thoughts of the end of the world and the thought of dying. A *Vilifushi* woman:

I thought this is just fate. My thought was it is the end of the world and just the end of us. I even said that to my children.

Gemendhoo and *Kadholhudhoo* women were frightened and scared to the extent they believed they were dying and the world was ending. A *Gemendhoo* woman elaborated:

No one was in sight. I was very scared. I was thinking what was happening. I thought it was the judgment day.

The women from three islands except *Madifushi* thoughts about surviving. A *Vilifushi* woman described her thoughts and how she tried to survive:

After getting in to the dhoni I could not stay, so jumped off. I was thinking that I must find a way of surviving with these children. Others were saying that another wave was coming. My father is unwell. I was talking care of my mother, father and nine children.

The women of three islands except *Kadholhudhoo* described their thoughts on the missing children. They thought the missing children would not be safe and that they would never see them again. One woman was more positive, thinking the older children would be able to survive. Another woman's thoughts were focused on the safety of a sick child who might not be able to get to a safe place. A *Vilifushi* woman talked about how she felt when she thought that her child will not survive:

My youngest son had swallowed water and his abdomen was distended. He was unconscious in my arms. I fainted with fear and some people took him from me. They squeezed the water out from his tummy and gave him mouth to mouth breaths. I had no hope that he would be alive.

Explanations

The women of all four islands offered explanations of the disaster phase. These emerged in the domains of internal thoughts and external factors. When describing the disaster, the women offered similar reactions to the disaster: the sudden disruption they encountered and the subsequent sudden emotions that followed. The main emotional reaction was to cry. *Madifushi* women explained what happened just before the tsunami struck as a sudden encounter that they could not figure out. *Vilifushi* women mostly spoke about the changes that happened to the sea and the events that followed. The few women from *Kadholhudhoo* and *Gemendhoo* who described the events spoke of chaos, however women from all four islands described the experiences they went through to survive the confusion and disorder. Most accounts were by the women of *Vilifushi*, followed by *Gemendhoo*. A *Vilifushi* woman's story:

The wave took me into a house. The walls started falling on my back, so I put my hand on my son's head and dived into the water. I lifted my head up and I still had not got my breath back and my son was struggling to

breathe when the roof started falling down. So I put my hand on his head and went down again.

Only the women of *Kadholhudhoo* and *Gemendhoo* talked about what happened during the short time they encountered the wave, how they saw people trying to survive, and the destruction caused. A few women said that during the disaster they never thought of helping anyone else and the circumstances did not allow it. It was explained by a *Madifushi* woman this way:

I could see his father rolling in the water. His clothes were washed away too. His legs were weak. He was calling out to save him. But I was also trying to survive, and the children were in front of me. I could not even get to them to save them. How could I help anyone else?

The women of all three islands except *Gemendhoo* stated their belief that the communities were saved and the missing found by the Grace of Allah. A *Madifushi* woman stated:

It was a miracle send to us by Allah to judge us. Allah has saved us, so I thought I will try and be good as much as possible.

Vilifushi and *Madifushi* women commented on the state of their islands' order or structure. A *Madifushi* woman:

There was no order at all. Whatever one wanted to do they were doing.

Sensemaking

The women of all four islands described the loss of sense of what was happening during the disaster phase. Their descriptions emerged in the domain of self and children. The loss of sense was from the confusion caused by an incident that made it difficult for them to understand what was happening. Some women could not remember how the person next to them survived. When some came across the injured and the dead, the initial response was that they did not make sense of others being dead or injured; they felt frozen, their minds had stopped functioning to comprehend what was happening. Women of all three islands except *Gemendhoo* described how they tried to understand the happenings of the day in order to make sense. A *Vilifushi* woman said:

There was fish swimming in the puddles of water. The water was contaminated with fuel from the fuel shop. My youngest daughter was paddling in it. She did not realize what had happened. Then I comprehended that I will not be able to live on this island anymore. I knew that because my house was completely destroyed.

Women of *Kadholhudhoo* and *Madifushi* compared the events of the day to other incidents to make sense. The immediate aftermath of the incidence was related to scenes from disasters in other countries:

It was like what we see on news, in other countries people have their belongings on their head and carry little children with soaked and muddy clothes. People were crying and running around. I thought we are going through the same experiences as what we see from other countries. People were sitting on the ground breastfeeding little children.

Kadholhudhoo and *Vilifushi* women made sense of their missing children by comprehending that they were missing and having alternative explanations of where they could be. A *Kadholhudhoo* woman's observation was that when things settled there was a realisation that children were missing. She explained:

When all gathered in the mosque courtyard and was a bit settled, then people realized that their children were not with them.

A few women described the effect of missing children and how they looked for them. One woman explained her search for her missing child:

People started leaving the island. It was around four in the afternoon by then. I thought I cannot leave the island but continue to search for her. I had both my mother and my children to look after. Still I told their father that I will continue searching.

Answers

In the chaos of the disaster, the women wanted answers for the questions they had. This was evident through the domains of self, family and external factors. The women from all four islands talked about how they had questions for which they could not get answers. Some said there was no one to give them answers, but others said that they

did not ask for answers. There were a few women from all four islands who had answers for the questions they had, but did not explain what these questions were. One *Vilifushi* woman said:

I asked myself those questions and got answers by myself.

The specific answers the women wanted were about their families. The *Vilifushi* women wanted answers as soon as they met others who had survived. The precise answers they were looking for were about a father who had not been seen or a husband who was away. During the disaster, the women who were away tried to get answers about their families back on the island too. A woman explained:

There was a total communication failure. I tried very hard to contact our island. The phone rings in the public booth, but no one answers. The television and radio were off the air. So, I went to other people asking if they got any news about our island.

Connectedness

The analysis of the factors that enabled the affected women to achieve a sense of personal connectedness in the tsunami phase resulted in four main themes. They are bonding, seeking others, rescue and making decisions. The findings are stated under each main theme.

Bonding

In the phase of the tsunami, the women of all four islands bonded with others. These emerged in the domains of children, family, and the island community. The women held their children even when they were struggling to stay afloat. A *Vilifushi* woman explained:

My youngest child was still under the water on my hip. My feet did not reach the ground and it was like the deep sea. I was holding on to the night dress of my daughter.

There were others who cuddled their children close to them hoping to keep them safe. A *Vilifushi* woman ran inside the house when the wave crashed into the island. She hugged all her children together and stayed inside a room that was getting flooded. Another woman stood frozen on the spot, cuddling her children with the shock of

seeing the destruction. When another woman was able to get up from the force of the water, she saw her children safely on the other side of the road in a dense bush area. Risking her own life, she jumped into the water again to get to them. The aim of most women was not to let go of their children until they could get help.

The women also huddled together with their families as they struggled to survive. In *Madifushi*, some families held onto each other and waded to the highest point on their island, while other families climbed on top of walls and held on. In *Gemendhoo*, a woman described how the whole family held onto each other and walked out of their property that was getting flooded. Other women stayed with their immediate families and others with their extended families. A *Kadholhudhoo* woman said:

We were gathered in the mosque. Even though our family is just three of us, our extended family is huge. We all decided to stay together in the same place even if we died.

The women also described how the island community bonded together in this phase. In *Gemendhoo*, the people bonded together when the disaster struck the island. A woman who was with a group of others in the nearby island said the eldest in the group came to her and they both held onto the same stick until the water level rose up to their chin. When they were washed away by the sea, people shared the same plank of wood to stay afloat. When the *bohkuraas* came to save them they all climbed into one because they wanted to stay together and not lose sight of each other. In the aftermath when people saw each other they huddled and looked for the missing. In *Madifushi* people clung together when they were trying to survive by holding hands until they managed to get their feet on the ground.

Seeking others

In the disaster phase, the women were seeking others. This theme emerged in the domains of self, family, internal and external domains. In the domain of self all women were seeking others, except *Gemendhoo*. The *Vilifushi* women and *Madifushi* women were mainly seeking their family to see whether they were safe. The main family members they looked for were parents, or immediate and extended family. The few *Kadholhudhoo* women who looked for their family were older women who were looking for their grown-up children to seek safety. A *Kadholhudhoo* woman explained

I did not know what to do and where to go. People were running up and down. I was tired. I clung on to the boundary walls of the house and slowly moved forward and made my way to my son's house.

Immediately after the wave had gone through the islands, a group of women looked for their displaced children. They were mostly women from *Vilifushi* and a woman from *Kadholhudhoo*. In looking for them they achieved a sense of personal connectedness. A *Kadholhudhoo* woman described how she went looking for her children who were at her brother's place:

I was running on the roof, from one house to the other. I could hear people shouting and asking whether I was going to kill myself. But I did not know whether I was on the roof or on the ground. My house is near the beach and my brother's house is further inland. I ran on the rooftops to that house. When I reached them, I was so relieved.

The women also talked about how priority was given to their parents. This helped them to achieve a sense of personal connectedness. When the wave was approaching the priority of some women was to warn their parents. In *Vilifushi*, one woman's immediate priority was saving her injured father who was wedged between a wall and a tree. The women from all four islands described how the family supported them to stay safe and survive the ordeal. A *Vilifushi* woman explained:

There were two teenage children in my extended family. They pulled me up from the debris. I did not have any strength. When I stood up, I saw my injured father. I got dizzy again and these children assisted me.

A few women from *Gemendhoo* and *Kadholhudhoo* women warned others as the wave approached, warning them to run away from the beach. Other women told village people to go inside the houses assuming that they will be safer there. Women from *Gemendhoo* and *Vilifushi* requested help from others to recover the injured. A woman elaborated:

I stepped a bit closer to have a look and slipped and fell. I fell in such a way that she was in between my legs. Her face was down, and a tin roof sheeting was on top of her. She was covered in debris and was lying on a plank of wood. I put my hand under her head, and she did not move at all.

I cannot see her face but the water on her face was like froth. I called out for help to try and get her out.

Some women talked about how they helped others which increased their sense of personal connectedness. A *Gemendhoo* woman encouraged her father to keep on hanging onto a window to avoid the force of the wave, and as soon as the waves subsided she helped him to safety. A *Vilifushi* woman tried to quench the thirst of her family by plucking coconuts, but when she saw an injured child she thought the coconut water would be more helpful to the child and offered it to her.

Rescue

The women were also connecting with others in the act of rescuing them. This theme emerged in the domains of the island community and children. The women of the four islands stated the island community helped them to stay safe. When the *Kadholhudhoo* island community realized a wave was approaching, they ran around the island waking people, instructing them to get out of the houses and to go to the mosque. During the disaster, there were many incidents in which people saved others. A boy was being carried away with the force of the water and an unknown person from the community threw a rope and saved him. Another boy drowning in the water was taken up onto a roof by another person. A woman who was hanging from the gutter of a roof was pushed on to the roof by two unknown boys. In the aftermath as well, the island community instructed people to gather in the mosque and afterward to assemble on the beach and to get on any available *dhonis* and leave the island.

On the island of *Gemendhoo* when the disaster struck, the women helped each other to stay safe, then they assisted children by carrying them in wheelbarrows away from the flooding waters. As most women were swept into the sea, boys from the island got into small vessels and headed out to search for them. A woman from *Gemendhoo* said:

Not only women helped us to be safe. Men, children and most importantly the male youth helped us. If they were not here, we would not have survived. As soon as the wave came the boys had taken the bohkuraas out. There were no oars or sticks to punt. So, they gathered wood slats from construction sites.

When the wave was approaching the island of *Madifushi* the community was alerting people who were inside the houses and helping the elderly and children to come out. When the wave hit, a woman who fell and was being carried away by the tide was grabbed by three others and helped onto dry land. The women who were struggling with children were helped by others to safety. In *Vilifushi* men from the community were at the end of a street that led on to the beach and pushed people being taken away with the tide into nearby houses. A woman believed that if they had not pushed her inside the house she would have gone to the wide-open sea.

The women of all islands except *Gemendhoo* described the connectedness in giving priority to the rescue efforts of children. When they were waiting to be rescued and the limited water was rationed priority was given to children. In *Vilifushi* women believed children should be saved first. The women described how the people were gathering children even if they were not theirs. A few women described how their children were rescued from the disaster. In *Madifushi*, some children who were trapped in a house were rescued by the son of one of the mothers. Another child who was admitted to the health centre was rescued by a health assistant who carried the child while running away from the waves. In *Vilifushi*, a child who was carried away by the wave was saved by a stranger. The child's mother explained:

My daughter was being carried away and I came after her. A boy saw her being taken away. He knew he cannot reach her if he started swimming. So, he let his body loose and started floating. The force of the water took him quite quickly to her. She was near the sea wall edge. He then grabbed hold of her and brought her back.

Making decisions

The women of three islands, not including *Madifushi*, talked about how they made decisions about survival in the panic stage of the disaster. This theme emerged in the domain of self. A *Vilifushi* woman said:

It was my decision. It was not anyone else's. I was thinking I must escape this and survive. Others are getting into dhonis. I have to get on.

A *Kadhohudhoo* woman described it this way:

I walked to the school gate where I can see the beach clearly. I could see the wave rising and coming towards the island. So, I decided to lock up the house and leave to my mother's place.

A Gemendhoo woman's story was:

I thought I should go into the bushes and made my way into the nearest bush. I had my child on my hip and held on to him with one hand. And on the other hand, got hold of a tree branch and steadied me to encounter the force of the water.

Attitude and behaviour of others

The analysis of the factors of the attitude and behaviours towards the women in the disaster phase resulted in two main themes: withdrawn and the effects of the behaviour of others. These themes emerged in the domain of self. The women of *Kadholhudhoo* and *Vilifushi* observed that others were withdrawn during the disaster phase. A woman from *Kadholhudhoo* explained:

There were bottled drinks and packets of food. No one touched it, not even the children. Everyone was withdrawn.

Only *Kadholhudhoo* women talked about the behaviour of others. A woman said:

When I saw how others were behaving, I thought why Allah made us see such behaviour. They were just bad people. What I saw made me scared."

Despite further probing, she did not elaborate on the specific behaviour of others.

Role of women

The analysis of factors pertaining to the role of the women in the tsunami phase resulted in four main themes. The themes emerged through the domain of self and the findings are stated under each main theme.

The women from all four islands said their roles have not changed because of the tsunami. A woman from *Madifushi* elaborated that during the disaster that she never had to do anything that men normally would do. In the initial phase, it was believed that there were no differences in the role of women and men. In *Kadhohludhoo* there were no differences between men and women in the rescue efforts, but on the other

hand, the women of *Gemendhoo* played a role in the rescue efforts as there was no other option for them. In *Gemendhoo*, there was only a single adult male on the island, the *Kuda Katheeb*, and younger, male schoolboys. Women who were washed away and drowning helped each other with floating objects to hang on to for survival. These women highlighted their traditional societal role on their island as a survival factor for them, with one woman from *Gemendhoo* explaining that as men are away working most of the year, the women are used to sea and they can swim very well. On the day of the disaster, the *Gemendhoo* women who were swept away were able to swim and get into *bohkurraas*. They were in the deeper lagoon for quite some time but managed to stay afloat by hanging onto floating twigs and branches. When the waves were crashing the remaining women in the island climbed trees to stay safe.

The role of decision making by women in the disaster phase was highlighted by the women of three islands, with the exception of *Vilifushi*. A *Gemendhoo* woman said it was the women who begged the men to take them to another island. A *Kadholhudhoo* woman said the women of the island had a bigger role in the decision to leave the island as there were not many men, who were away fishing.

Immediate Phase: Seeking basic survival elements

Control

The analysis of factors that enabled the affected women to achieve a sense of personal control over problems and responses in the immediate phase of the disaster resulted in three main themes. They are coping, loss of personal control and regaining personal control. The findings are stated under each main theme.

Coping

The theme of coping emerged in the immediate phase of the disaster through the domains of the island community and self. The women of all four islands agreed that immediately after the disaster survivors coped by making decisions together. *Madifushi* women talked most about making decisions, most agreeing that decisions were made collectively by the whole island community. In the immediate aftermath, the island communities of *Kadholhudhoo* and *Gemendhoo* made the decision to leave the island which according to the women helped them cope. *Kadholhudhoo*

community also unanimously agreed to leave the island. Even though there was an opportunity for everyone from the island to make a choice, the women explained that:

Women will agree with what men say.

Some women believed that they had a role in influencing the decision-making process of the island community. A *Madifushi* woman said:

I influenced the decision making through the Island Women's Development Committee'. We had two options. It is to migrate to another island or build our island. If we rebuilt our small community will be isolated. But as we worked together supporting the government's goal of centralization with Allah's grace, we were the first community to get permanent shelters. We have to support the government because I don't think they will take any action that is detrimental to us.

Other *Madifushi* women believed that post-disaster decision making from the community was that of the island leadership. One woman explained that the leaders with more followers got what they wanted. *Gemendhoo* community's approach was similar. They were given the choice but decided to go along as a community with the leadership. It was explained:

All of us were asked whether we want to go to Laamu Atoll or stay in Kudahuvadho. Most people said that they will follow the choice of the Katheeb. Katheeb decided to stay here in Kudahuvadho so we all stayed here.

The women from all four islands expressed coping emotions when they realized the damage and destruction that the disaster had caused in their lives. They were scared, crying, sad and happy. Crying was an emotion expressed as shock because of the incident. The destruction of the disaster made some women cry while others cried when they met others, such as the host communities. A woman explained:

Guraidho is an island that I have only visited once. Someone came and took my hand and I put my head on her shoulder. What I could do was only cry.

Some women were happy when reunited with their families. In the immediate aftermath, women adopted different strategies to help them cope: feeling alright about

the loss; waiting patiently; or being with other people to distract them from recollecting the memories of the disaster.

Loss of personal control

In the immediate aftermath of the disaster, there were various instances where the women lost personal control. This emerged from the domain of self, host community, and family. The women of three islands, the exception being *Gemendhoo*, saw the relocation of the communities to host islands as something that they had to do against their will, which contributed to losing their personal control. The most views on this subtheme were stated by *Madifushi* women who made the decision to permanently migrate during this phase. The women of *Gemendhoo* and *Vilifushi* expressed a sense of apprehension when they were on the host islands, which made it difficult for them to cope. The uneasiness was described by a *Vilifushi* woman:

The host family gave us food, but it was very hard to swallow. The kids were fed but they were not able to sleep. I was not able to sleep. We were all very frightened.

The women were living in inferior conditions in the host community which made them feel that their personal control was diminished. A *Madifushi* woman said:

We were living in very poor conditions. We were like people visiting another island. There was no belongingness.

The difficulties of living in a temporary shelter were described by a *Gemendhoo* woman as:

We have to live in temporary shelters. It was very difficult. I was with 19 others in a two-bedroom shelter. There were 6 of us. Others were from different families.

A woman from *Madifushi* felt that she was helpless living in a host community.

I wish I was on a different island in the same atoll. I feel that I will not be able to see my island ever again. I am still sad. I feel that we are very helpless in this community.

In the aftermath of the disaster, a woman expressed anger towards her husband as a result of losing her personal control. Some others lost their personal control because they were sad and upset that their family was dispersed between different host islands.

These women described their lives as not being easy. The effects of the dispersal were expressed by a *Madifushi* woman as:

A lot of changes happened in my life. My husband went to another atoll with two of my children. I had the other two children. I had to think how to rebuild our lives as a family. Our family was apart.

Regaining personal control

In the immediate aftermath, circumstances occurred to make it possible for the women to regain their personal control. The theme emerged through the domains of family, host family, and internal domain. Some women regained their personal control by reuniting with different members of their family and being together. Most of these women talked about reuniting with their husbands. They were happy and expressed the joy of being reunified. Some of them were bursting with emotions and were unable to speak, instead their eyes filling with tears. Reuniting with siblings made them stronger and united in searching for the missing.

Staying together helped a few women to regain their control. It was believed by a *Kadholhudhoo* woman that all the negative experiences of the disaster were overcome by being together. She explained:

To overcome we try not to be alone. I was with the family members all the time. We slept in one room. The whole family was together, and we tried various ways of getting away from that experience. That is why we achieved it.

Most women said that the internal strength they had was for their children, family and others, which kept them going on with their lives. The inner strength helped them overcome the challenges of survival. In the aftermath, the women continued to pray, as described by a *Madifushi* woman:

We gained our strength and stayed in the host island that night. We acknowledged that people were lost. We prayed. Next day we all went looking for them.

Coherence

The analysis of the factors that enabled the affected women to achieve a sense of personal coherence in the immediate phase problems and responses of the disaster

resulted in four main themes: questions, answers, explanations, and thoughts. The findings are stated under each main theme.

Questions

In the immediate aftermath of the disaster, the women of all four islands had questions related to how they could live. This theme emerged in the domain of self. They were questions such as:

Where will I sleep tonight?; Where can I go?; What can I do?; Where can we live?; How can I live?; Who will help us?

Women questioned how they could start a life all over again and had questions about why the disaster happened. Most questions were from the women of *Madifushi*. Their questioning about the reason for the disaster was punitive in nature. A *Madifushi* woman explained:

When we all settled people started discussing similar thoughts. Why did this happen? How have we behaved for such a thing to happen? We had lots of questions like that.

Answers

In the immediate phase of the disaster, some women from all four islands discussed the answers they got and the source. The source of their answers emerged in the external domain, from news media: television and radio. *Kadhohudhoo* and *Gemendhoo* women said they discovered the disaster started in another country and got the details through television programs they watched in the host island. A woman explained:

I got the information from the news from Television Maldives. The scenes I saw was sorrowful. Before I thought it was only my island that was affected.

Madifushi and *Vilifushi* women similarly realized that the disaster had also happened in other countries from the news bulletin transmitted through the national radio:

When we opened the radio, we hear people from other islands talking about the disaster and how it had affected them.

Explanations

In the immediate phase, the women explained the disaster. This was through the internal and external domains. In the internal domain, the women from all four islands talked about why they thought the disaster happened. Most views were expressed by the women of *Madifushi*. They concluded that they must have done something religiously wrong for it to happen, and believed it was a punishment from Allah.

I thought Allah has punished us for something that we have done. I never thought that the damage will be that severe. Because the damage was that severe, I thought we must have been bad for us to encounter such a thing.

The outcome behaviour of this assumption was explained by a *Gemendhoo* woman.

People thought it happened because religiously they were behaving badly. So, to become good they started wearing hijab.

The few women from *Vilifushi* who spoke about why they thought the disaster happened had similar perceptions as women from other islands. They believed resentment with each other in the community was the cause of the disaster. The only *Kadholhudhoo* woman who spoke about this also agreed with this view. However, another woman rationalised the disaster when she started getting news, because she knew it was an after effect of something that happened in another country.

The women explained the issues of relocation through the external domain. Immediately after the disaster the *Kadholhudhoo* women and *Vilifushi* women moved to host islands. The *Kadholhudhoo* population were dispersed to several host islands and later relocated to one island in the atoll. When they were in the host islands, they moved from one to the other. One woman moved because there was no secondary school. Another woman moved because she could not earn an income. The main reason the *Vilifushi* people relocated to the host island of *Buruni* is that they got a school in the name of *Vilifushi* for the education of the children. A *Kadholhudhoo* woman and a *Madifushi* woman explained that permanent migration was a consideration before the tsunami. The *Kadholhudhoo* woman's story was:

Even some time back the issue of Kadholhudhoo people migrating to another island was brought up and some work was done on it. The issue was that it was thought that there was no future development for the island because it was so highly populated. So, Dhuvaafaru was an island already selected for Kadholhudhoo people to migrate.

The *Madifushi* woman's encounter was similar:

Nearly half the population of the island had thoughts of migrating to another island when the tsunami came. So, after the tsunami when it was decided to migrate the rest of the community followed them.

The disaster was explained as an unforgettable experience by few women. A *Gemendhoo* woman described the experience as a dismaying experience that they would never forget:

It was a horrible experience. We were running in all directions not knowing what to do. It was heartbreaking. The sea was swelling on and off. Everyone gathered together. Some had sand on their face and all over. Some did not even have their pants.

Thoughts

The women discussed the thoughts they felt during the immediate phase of the disaster. This emerged from the internal domain and self. Of the unpleasant thoughts that went through the minds of the women most talked about unpleasant thought was having no hope of surviving. Another unpleasant thought which crossed the women's mind was that they could have died. Some other women thought that their island was destroyed and felt very sad and upset. One woman constantly thought that she wanted to get away from it. A few women from two islands talked about how their children were asking for food and water, which made them think of looking for something to eat. A *Vilifushi* woman said:

The children said they were hungry. That made me think of food. But what can I give them? I said who will give us food. We were not in a state where one could help the other person.

There were a few women who thought that they will never be safe, that the disaster will happen again and they will not survive. A *Gemendhoo* woman explained:

I was thinking that the water will rise again. The sea surrounding the island was very angry and frothing. I was scared and crying when I reached the dhoni.

A few women were concerned about others in distress. A *Madifushi* woman's thoughts were described as:

I saw my cousins spend the night without a father was a much sadder scene. The emotions I got were overwhelming thinking of how these children will be alone.

Connectedness

The analysis of the factors that enabled the affected women to achieve a sense of personal connectedness in the immediate phase of the disaster resulted in three main themes. They are bonding, seeking others and making decisions. The findings are stated under each main theme.

Bonding

In the immediate phase of the disaster, the women bonded with others to achieve a sense of personal connectedness. This theme emerged through the domains of family and island community. In this phase, the women of all four islands bonded with the family. In the aftermath, the relatives who lived in the nearby islands came to fetch them. *Kadholhudhoo* and *Vilifushi* women were dispersed to different host islands. They talked about how they bonded and created structural togetherness of their families. An elderly *Kadholhudhoo* mother went to a specific host island because there were three other family members on that island. Another *Kadholhudhoo* woman rented a derelict house in the host community just to keep her family together. A *Vilifushi* woman moved from the initial host island to the host community where all others from her island were living because the island school was there, which would help her children to maintain their circle of friends. Even in the host islands, the women opted to be together with their families. A *Vilifushi* woman said:

I brought all my family that I found to the host family I was staying. I got permission and we all stayed together. It was 23 of us in a very small room. We took turns in sleeping. There were other rooms too, but we did not want to part.

The women of all four islands described in the immediate phase how the island community bonded together and stayed united. The *Madifushi* community was divided on the issue of permanent migration but the community worked together to move on

and rebuild. They said people were kind to each other and helped anyone in need. The island community moved together from one place to other and if one was not able to go, they opted not to move. *Vilifushi* women believed that the island community was a population with a strong community spirit who always worked together. In the aftermath, people shared food and worked together to stay safe. In *Gemendhoo*, the women said that in the aftermath there, people who did not usually talk to each other were hugging and comforting each other. The women of *Kadholhudhoo* said that the island community was together and united. In the aftermath, people gathered any child that they came across to keep them safe.

Seeking others

In the immediate phase of the disaster, the women sought others. This theme emerged through the domains of the host community and family. The women of all four islands discussed how the host community assisted them. The *Gemendhoo* women said when they moved to temporary shelters, they got a lot of assistance from the host community with cleaning and help to move in. A *Vilifushi* woman highlighted how the host family provided them with dry clothes and concluded that they assisted them immensely. The *Madifushi* women got assistance from the host community to bury the people who died.

Women from three islands, *Vilifushi* being the exception, talked about how the host community welcomed them into their communities. They said when they reached the host island the whole community was at the jetty to greet them, and welcomed them with fresh cold drinks. They were upset and sad, but the host community gave them a lot of encouragement. They believed that they had good relationships with the host community. A few women from *Gemendhoo* and *Madifushi* who responded said the relationship was good between the two communities. The *Madifushi* women explained that when they arrived in the host community, families had been allocated to them.

The view of *Kadholhudhoo* women was that initially both communities lived peacefully, but things changed later. There were a few families that had good relationships with the host family. *Madifushi* women and *Gemendhoo* woman discussed how they worked together with the host community. *Madifushi* women said that the host community was in the same state as them. It looked to them that they also

wanted someone else to share their grief. They shared the mosque hall, they cooked and shared meals, and they worked together to move on with life. The *Gemendhoo* woman said they and the host community worked together for the development of the island.

Only *Vilifushi* women supported their families in the immediate phase. They described how their families supported them in various situations. A woman was supported by her children when they lost a sibling. Another was supported by distant relatives on another island by offering temporary accommodation. Another woman who was fearful, shared her emotions with her father who supported her with black magic, which she believed helped her to cope.

Making decisions

In the immediate phase of the disaster, the women from all four islands made decisions. This theme emerged through the domains of the island community and family. The women described how collective decisions were made by the island community. The *Gemendhoo* island community made the decision to get into the *dhonis* in the lagoon, although men in the *dhonis* did not want to travel because the sea was murky and full of debris. The women thought the disaster had occurred only to them and felt they should let someone else in the country know so they could get some assistance before it became dark. So, the women persuaded the men by crying and pleading and made the trip to the island of *Vaani* in the same atoll.

The island community of *Madifushi* made the collective decision to move to a nearby island, thinking it will be safer and to migrate permanently. The men and women discussed the options of migration together. Most wanted to migrate and not rebuild *Madifushi* as they wanted a place that was easier to settle down. The women of *Vilifushi* talked about two instances where island community representatives made decisions, such as the island leaders making the decision for the children and women to travel to the nearby island of *Guraidhoo*. The women were not involved in this decision, and believed the island leaders should have done as the women suggested.

The *Kadholhudhoo* community made the decision to relocate to a host community as suggested by the Atoll Office. When officials from the Atoll Office communicated

throughout atoll, *Ugoofaaru* people came to their assistance and offered them temporary shelters. The leadership of the *Katheeb* was highlighted by a few women from *Madifushi* and a woman from *Vilifushi*. In the disaster phase in *Madifushi*, the *Katheeb* assembled everyone on the island. His leadership skills were used to swiftly lead the whole island community into the neighbouring island. The *Vilifushi* woman highlighted that the *Katheeb* took the lead in looking for survivors.

In the aftermath of the disaster, a few women from three islands, *Gemendhoo* being the exception, made the decision to stay with their family rather than be dispersed. One woman did not migrate to the capital island because she did not want to leave her mother behind. Some even left the vessels taking them to the host islands so as not to leave their father or mother behind.

Role of women

The analysis of the factors of the role of the women in the immediate phase of the tsunami resulted in two main themes: leadership and rebuilding. These themes emerged through the domain of self. In the immediate phase the women believed there was no difference in the role of women and men. The men and women worked together in the clean-up.

The leadership of the women during the immediate phase of the disaster was discussed by the women of *Madifushi* and *Vilifushi*. In *Vilifushi*, a woman described how the *Katheeb* assigned her the task of preparing food for the island community as he thought that she was capable. She said:

We were running and getting into dhonis to leave. Katheeb approached me, took my hand and said you are a brave woman, so please come with me. I jumped out. He said the whole island population is hungry, so to come and help him prepare a meal for them. I rolled my sleeves, got a sack of rice, a bottle of oil from the streets and I prepared a meal. The plates were even collected from the streets.

Other women leaders formed groups and worked to rebuild the island. *Madifushi* women leaders approached the *Katheeb* when they were in the host community, with their initiatives to bring back life to normality such as preparing their own meals. The

women's role in rebuilding in the immediate phase was highlighted by the women of *Vilifushi* and *Madifushi*. A *Vilifushi* woman stayed on their ruined island with a group of men, lobbying to rebuild the island. The *Madifushi* women started activities of rebuilding the day after the disaster by going back to their ravaged island to collect reusable items.

Intermediate: Adapting to changed circumstances

Control

The analysis of the factors that enabled the affected women to achieve a sense of personal control in the intermediate phase of the tsunami resulted in four main themes. They are: a loss of personal control, regaining personal control, coping and future hopes. The findings are stated under each main theme.

Loss of personal control

In the first year after the disaster, the women were still encountering situations where they felt that they were losing personal control. This emerged in the domains of children, family and host community. In the domain of the host community, the tension that built between the women's communities and the host communities in all four islands contributed to the loss of their personal control. The most tension was described by *Madifushi* women, the only islanders living permanently on a host island. Most women felt the tension between the two communities started building when, initially, families had to share a single household with the host families. On the other hand, other *Madifushi* women thought that it was in the nature of the host community to be hostile towards others. One said:

They are not very nice people.

Others talked about issues between the two communities. A woman explained:

We saw them as part of our community until a big misunderstanding erupted. The last government offered 50 thousand Rufiyaa to each household who had migrated to another island. We got it and the people of this island were unhappy about it. They gathered near the office and individuals were targeted as well. They threw stones at our houses.

The women from *Vilifushi* were living with a temporary host community in the island

of *Buruni*. The tension between the two communities was mainly on the issue of identity. The people of *Vilifushi* believed that *Buruni* had been developed due to the *Vilifushi* community being larger but the host community did not accept it as such. A *Vilifushi* woman explained her perceptions on the cause of the tension:

The Buruni community were unhappy and voiced their unhappiness when they heard Vilifushi was going to be rebuilt. They tried to put barriers as much as possible to stop the rebuilding. But the whole Vilifushi community was voicing to go back to Vilifushi. We do not want to live in Buruni or Malé or even Hulhumale.

In the opinion of the *Kadholhudhoo* women, the tension between their community and host community were because of issues between the youths of the communities. There was stigmatization:

If anything happens between two children from both communities, the issue will always be the Kadholhudhoo child. The Ugoofaaru child's issue will never be raised. If there was a fight, it will always be that Kadholhudhoo child started the fight. Even with drugs, it is always Kadholhudhoo boys.

The community of *Gemendhoo* was stereotyped by the host community as a group prone to bad luck.

In the domain of the family, the women of all three islands (*Vilifushi* was the exception) experienced the dispersal of their families, which was a factor in losing personal control. A woman from *Kadholhudhoo* described how her family was dispersed 6 months after the disaster with herself, husband and children being on three different host islands. She was only able to communicate with them by telephone. A woman from *Kadholhudhoo* said her family was dispersed because there were no educational opportunities for her younger siblings. The impact was described by a *Madifushi* woman this way:

A lot of changes happened in my life. My husband went to another atoll with two of the children. I came to this host island with the other two, Because of this I had to think a lot on how to rebuild our lives as a family. The family was apart.

Gemendhoo was the only island where the women talked about the difficulties in family relationships, which resulted in the loss of personal control. It was because of the congestion in the temporary shelters they were living in. A woman said:

It was very difficult. My husband was very understanding. We lived with another family in four rooms. There were sixteen of us including my six children. We had two rooms.

In the first year, *Madifushi* women migrated permanently to another island, but a few women lost their personal control in the domain of children, as they had to leave them behind because the children were enrolled in schools in the host island.

Regaining personal control

The women identified ways that helped them regain their personal control in the immediate phase. This theme emerged in the domain of external domain and self. The aid that they received helped to regain their personal control. They believed that the assistance that was given was as much as the government could afford. They thought there would be deaths due to starvation if they did not receive the aid. Despite the amount of aid they received, there were some who thought the temporary shelters that were given were unpleasant. A *Kadhohudhoo* woman explained:

The four years in the temporary shelter was unpleasant. It was so hot in the shelters. The food was free. Electricity was free. It was all paid by the government. Because of the heat we had to live in difficult conditions.

There were various strategies that the women from the four islands engaged to regain their personal control. Rebuilding their lives was the leading priority for the women. *Vilifushi* women talked the most about rebuilding their lives and resettling back in their own island. A woman described her hope:

My heart was going back to Vilifushi. My brother went back to Vilifushi. They tried to clean and see whether people could live there. Fellow islanders used to question whether my family was crazy. They said we could bury the rotting fish but how could we rebuild for people to resettle in the island. With tears, I told them not to say it and we will be able to live in our island again. My hope and dream were going back to Vilifushi.

There was a perception from *Gemendhoo* women that the hope of permanent shelters was the key to rebuilding their lives. For the women of *Madifushi*, the incentive for rebuilding was their children. The women set their own goals to regain their personal control. Earning an income and building their lives was the goal of *Madifushi* women. *Vilifushi* women thought because they had survived the tsunami and were alive, they had to build a future for their children. Their goal, as well as the *Kadholhudhoo* women's goal, was getting shelters and getting back their lives to normal. In order to rebuild their lives, the women of three islands (but not *Madifushi*) collected material things that were lost. This action made them feel that they were more in control of the situation. *Madifushi* was the community that migrated permanently within the first year of the disaster. Minimising uncertainty by migrating helped them regain personal control. Prior to migration they took time to say goodbye to the life they had before, and this helped them too.

Coping

The women from three islands, with the exception of *Gemendhoo*, talked about the strategies they used to cope in the immediate phase. This theme emerged from the domain of self. The tactics the women used were consequences of the emotions they were feeling: most were scared; some were unable to stay focused; others were afraid of the dark. As a result, they had sleeping problems and were afraid of loud noises. Some expressed how the memories of the day still haunt them. A woman from *Vilifushi* said:

After the tsunami I cannot focus on anything. I am always scared. When I hear an engine of dhoni being started I cannot even describe the fear I get. At night, I cannot sleep because I get scared. Trying to stay calm helps.

Crying was the emotion that helped most of these women. A woman from *Kadholhudhoo* explained

Anything which triggers the memories of the day makes me scared and frightened. It makes me cry. Crying makes me feel better.

Future hopes

The women from all four islands expressed their future hopes which helped them maintain their personal control. This emerged in the domain of self. For some women it took over a year and mostly it was related to the times when their lives started resettling, often characterized by moving into temporary shelters. They talked about why they had hopes for the future. Being alive was stated as the main reason for being hopeful. Rebuilding their own islands was the foremost future hopes of the women of all four islands. They wanted to rebuild their islands because they loved their islands and yearned for their lives to go back to being what it was before. A *Vilifushi* woman explained this notion this way:

The next day I visited the nearby islands to find a suitable place to live. In those islands, I felt very claustrophobic and I could not breathe. But when I got back to Vilifushi I did not have those feelings.

However, there were a group of women who stated that their future hopes were grim. They were mostly women from *Vilifushi*, a few women from *Gemendhoo* and a woman from *Madifushi*. The *Vilifushi* women were not hopeful because they had to live in a host community for a lengthy period, waiting for their island to be rebuilt. *Gemendhoo* and *Madifushi* women who were not settled in the permanent shelters as part of a host community were the group who said that they had no future hopes. They felt a lack of belonging which made them unhappy about moving on with their lives.

Coherence

The analysis of the factors that enabled the affected women to achieve a sense of personal coherence in the intermediate phase of the tsunami resulted in two main themes. They are answers and explanations. The findings are stated under each main theme.

Answers

During the intermediate phase of the disaster, the women of all four islands discussed the answers they had about the disaster. In this phase, they focused on explaining who gave them the answers and the theme emerged in the external domain. The sources for the *Gemendhoo* women were host island people, who informed them that other islands were affected, as well as government and island officials who informed them about the

progress of rebuilding the permanent shelters. The sources of answers for *Madifushi* women were within their immediate families: their daughters or their husbands. The women from *Vilifushi* had two sources of answers. The *Katheeb* explained the disaster did not happen to their island only. Answers for the progress of the temporary shelters being built in *Buruni* were obtained from people on the launches that stopped in *Mulah* to refuel. The only woman from *Kadholhudhoo* said that she got answers to her questions from the counsellors who visited them.

Explanations

The women from all four islands discussed the host communities they were living in during the intermediate phase of the disaster. Initially, when they moved in, there was a consensus amongst all the women that the host communities were kind and good to them. Some women from *Kadholhudhoo* felt their host community was kind because they were organized and took them into their homes on arrival, whereas others thought they were compassionate about their immediate needs. *Madifushi* people encountered life with two host communities of different islands. A few women from *Madifushi* felt that both these communities were compassionate and good. A few women from *Vilifushi* also thought the host community treated them very kindly.

The women from the four islands talked about the differences in lifestyle between the host community and themselves. Most women from *Vilifushi* depicted it as two separate communities living on one island. They believed the differences were because *Vilifushi* is a wealthier community compared to the host community. *Madifushi* women who talked about the differences in lifestyles mentioned the different social habits they had to adapt to, such as the timings of meals. *Gemendhoo* women also described social differences with their host community. They thought the host community was not interested in doing anything for the survivors, with gangs of youth who practiced unruly social behaviour.

Connectedness

The analysis of the factors that enabled the affected women to achieve a sense of personal connectedness in the intermediate phase of the tsunami resulted in two main themes. They are seeking others and bonding. The findings are stated under each main theme.

Seeking others

In the intermediate phase of the disaster, the women sought others. This theme occurred in the domain of the host family. The women from three islands, the exception being *Vilifushi*, believed that they had good relationships with the host community. The few women from *Gemendhoo* who responded said that the relationship was good between the two communities. The host family that they were living with was good and there were no difficulties. They perceived to be lucky to get a nice host family. The *Madifushi* women said the relationship with the host community was good and even later they were close. When they arrived in the host community, they had allocated families to them. The *Kadholhudhoo* women said that both communities lived peacefully together initially.

Bonding

In the intermediate phase of the disaster, the women from *Kadholhudhoo* and *Vilifushi* attempted to create the structural togetherness of their families. This theme emerged in the domain of family. *Kadholhudhoo* inhabitants were dispersed to different host islands in the atoll. The women struggled to keep their families together. Some women opted to move between host islands to live with family members. Others moved between host islands for economic reasons. A woman explained:

We moved to Ugoofaaru because in Fonadhoo it is very difficult to go fishing. So we were not getting anything to eat with rice. The family was getting unhappy. We settled after moving to Ugoofaaru. We were with our extended family and friends. Life became normal for us.

Attitude and behaviour of others

The analysis of the factors of the attitude and behaviours towards the women in the intermediate phase resulted in one main theme: the negative behaviours of others. This theme emerged in the domain of self. The negative behaviours in the intermediate phase were highlighted by the women of *Kadholhudhoo*. The women thought that living in temporary shelters in host communities in different islands have an impact on the social behaviour. Unruly behaviour from local youths, such as substance abuse led to widespread stealing, harassment and home invasions which affected the women's livelihood.

Longer term: Creating a new life

Control

The analysis of the factors that enabled the affected women to achieve a sense of personal control in the longer term resulted in two main themes. They are regaining personal control and future hopes. The findings are stated under each main theme.

Regaining personal control

In the longer term phase, the women regained their personal control by relating incidents to the past. These themes emerged in the domain of self. In the months following the tsunami, when there were similar warnings, relating to past events helped the women of three islands except *Gemendhoo* to regain their personal control. A *Madifushi* woman said that the past events helped them to stay prepared. A *Kadholhudhoo* woman who reopened her shop on the host island related to the way she lived in her own island. She said:

When I see people coming into our makeshift shop to buy things, I imagine that I am sitting in my son's store on our island. I still have those memories embedded which makes coping with life easier.

Future hopes

In the longer term phase, the future hopes of the women from all four islands helped them maintain their personal control. This theme emerged in the domain of self. *Gemendhoo* and *Vilifushi* women who were living in temporary shelters in a host community hoped for an independent life in permanent housing. A woman explained:

My hope was to get a life of my own. With that hope, I carried on with my life. My aim was to get a life with my own family in my own house.

In this phase also the *Vilifushi* women wanted their island to be rebuilt because they yearned for their lives to return to what it was before. The *Madifushi* women who were settled on the island they had migrated to permanently, expressed their hopes of living there because they were alive with their children, and their focus was on earning an income to make life better. In contrast, the hope of a *Kadholhudhoo* woman was her only wish was never to experience anything similar. She was settled in her rebuilt island:

Even in my dreams I never thought I will be able to earn and live in a property like this. This is a donation.

Coherence

The analysis of the factors that enabled the affected women to achieve a sense of personal coherence in the longer term resulted in one main theme. It is explanation.

Explanations

In the longer term phase, the explanations the women offered were about the host community and the conflicts that arose. This theme emerged in the domain of host community. The women of all four islands talked about the differences between them and the host community. *Vilifushi* women were living on the host island of *Buruni*. They described the two communities as ‘two islands’ living on one island. The separation was explained this way:

The host community is not happy with us. Buruni is not a very well-off community. But I think we are a resource for them. Their basic and essential needs were met from Vilifushi before.

Gemendhoo and *Madifushi* women had permanently migrated and were living in a host community. *Gemendhoo* women explained that although they were actively involved in the island's development activities, in contrast the host community was not interested, so they lost interest in such activities. Also, they felt that the youth of their community were involved in bad behaviours that they were acquiring from the host community. Their perception was that even in schools the children were treated differently. *Madifushi* women discussed the reasons they believed they could not settle in the host community. One woman claimed:

The fighting and unrest are not only targeted at us, they even fight amongst themselves whereas another woman said: *they are like that because they are not educated.*

The women from the four islands talked about the differences in lifestyle between the host community and themselves during the longer term phase of the disaster. As with the issues in the intermediate phase, *Madifushi* women spoke about the differences in lifestyles or social habits that they had to adapt to. *Gemendhoo* women also described

the social differences in the community, specifically that the host community seemed to be uninterested in doing anything for the community, with youth gang groups who practiced unruly social behaviour.

The women from three islands, *Kadholhudhoo* being the exception, gave explanations about conflicts with the host community. A few women from *Gemendhoo* gave contrasting views. One woman said the conflict arose when the female in her host family became suspicious that she was having an affair with her host's husband. A *Madifushi* woman expressed the view that:

Even when own families live together issues happen and conflicts arise.

The *Vilifushi* woman explained that were when people have to live together for longer periods, conflicts will arise.

Connectedness

The analysis of the factors that enabled the affected women to achieve a sense of personal connectedness in the longer term resulted in two main themes. They are bonding and seeking others. The findings are stated under these main themes.

Bonding

The women spoke about the bonding in the longer term phase with the host community. This theme emerged in the domain of host community. In this longer term phase, the bonding with the host community was discussed by the women of *Kadholhudhoo* and *Madifushi*. The conversation was around how the neighbours from the host community developed a friendship with them and encouraged them to participate in community activities. These relationships were longer term connections. The participation of the activities in the host community enabled the women to earn an income.

Seeking others

The women from *Kadholhudhoo* and *Madifushi* sought others in the host community. In this longer term phase, the women expected more assistance from the host community, an expectation of help in rebuilding their lives. But the women of both islands said they did not get any help to rebuild from the host community.

Attitude and behaviour of others

The analysis of the factors of the attitude and behaviours towards the women in the longer term phase resulted in three main themes. They are being labelled, change in behaviour and how others saw them.

The labelling by others in the longer term phase of the women was highlighted as an attitude. A *Gemendhoo* woman said that they were called

Survivors who landed on this island after being lost in the sea.

In schools, the *Gemendhoo* children were called victims of drowning, a labelling that upset them and made them sad. A woman said:

I feel that we are just some people with no identity in this island.

The view of some other women was that adults were not treated that way. The women described the change in behaviours of others as well as themselves in the longer term. It was believed by the *Kadholhudhoo* women that behaviour of others did not change directly because of the disaster. But the opinion was that different antisocial behaviours and issues became more prominent because they were dispersed to different host islands and the population increased on islands when two island communities permanently migrated. A *Gemendhoo* woman said that the disaster changed her life with regards to faith and religion. She said she used to wear short sleeve dresses without a hijab. Following the disaster, she changed to wearing hijab and prayed regularly.

In the longer term phase, the two island communities who had permanently migrated to other islands talked about how others in the host community saw them. A *Madifushi* woman said there were no differences in how others in the host community saw them, but another woman opposed this view. She said some people on the island still call them '*tsunami help needed people*'. The *Gemendhoo* people living in the host community also faced the same issues. They said the host people call them names because they saw them differently. They are identified with the island they came from. The women said that some people from the host community believe that even if they lived there for a long time they will never be considered as *Kudahuvadhoo* people.

Role of women

The analysis of the factors the role of the women in the longer term phase resulted in a single theme of generating income. The women believed that women had a greater role in rebuilding as they took initiative and started working to generate an income. A *Kadholhudhoo* woman said:

Women took initiatives and started working. They realized that a family cannot survive on a single income and worked along with the men to earn more money.

The women stated that their voices were heard and they received assistance from aid agencies to start income generating work. As a result, they considered themselves to be happier as they were wealthier and prosperous.

Summary of Analysis of Sequence 1 and Sequence 2

The analysis of Sequence 1 and Sequence 2 explained the phenomenon of the resiliency of the women of all four islands through domains of self, children, family, island community and host community. These domains were surrounded by their internal and external spheres. These domains assisted in further analysis of the data which showed that the women's experience of the disaster was understood by four timelines of tsunami, immediate, intermediate and the longer term phases.

In the tsunami phase the women of three of the four islands, the exception being *Madifushi*, lost their personal control as they tried to survive and look for missing children. The women guided the events in their lives, which helped them regain personal control. In the panic of the disaster when they struggled to survive, they collected any reusable items. The women of all four islands coped by crying and the women from *Madifushi* and *Kadholhudhoo*, especially, looked for their missing children, which helped them regain their personal control. Both in the immediate and intermediate phases the women continued to cope by expressing emotions. In the immediate phase, apart from the women of *Gemendhoo*, all others lost their personal control because of relocation to host islands. In the immediate phase the tension between the host communities and the women's communities was the causative factor for their loss of personal control. In the immediate phase the women regained their control when they reunited with families and in the intermediate phase the factor was

various rebuilding strategies of shelters. Future hopes of independent life emerged in the intermediate phase and continued into the longer term phase.

The women of *Gemendhoo* and *Kadholhudhoo* expressed their uneasiness in the tsunami phase. The women of all four islands described accounts of the day and, except the women of *Madifushi*, all others exemplified their survival stories. In addition, women of *Vilifushi* and *Gemendhoo* highlighted their quests looking for missing children. All women agreed there was a loss of sense in the tsunami phase. The disaster was described as Allah's will by all the women except those from *Gemendho*. All the women wanted answers but were not asking questions. The questions started emerging in the immediate phase and they looked for meaningful answers in the intermediate phase. In the intermediate phase explanations about the disaster started to appear. In the longer term phase, the explanations were focused on the host community and subsequent issues.

In the tsunami phase all the women except *Gemendhoo* bonded together and looked out for others in the fight for survival. All the women including *Gemendhoo* assisted in the rescue of others. In this phase all women, except those from *Madifushi*, made decisions that contributed to their sense of personal connectedness. In the immediate phase all the women bonded with their family and, except *Madifushi*, the bonding extended to the island community. In the immediate phase, except for the women from *Vilifushi*, all women related to host communities' hospitality. In this phase tensions started with the host communities in *Vilifushi* and *Kadholhudhoo*. The collective decision making by all the women enhanced the sense of personal connectedness. In the intermediate phase all women, except *Vilifushi*, sought the assistance of the host community. The bonding in this phase was by *Vilifushi* and *Kadholhudhoo* women to gather all their dispersed families into one host island. In the longer term phase, a lasting connectedness was built with nearby specific host neighbours by the women of *Kadholhudhoo* and *Madifushi*.

In the tsunami phase, all the women believed that there was no change in their role. Except the women of *Vilifushi* all others expressed their accounts of decision making. In the immediate phase the role of the women was a theme that did not emerge from the analysis. In the immediate phase the women from *Vilifushi* and *Madifushi* played

leadership roles and whereas in the longer term phase all the women played an income generating role. The attitude and behaviour of others were highlighted mostly by *Kadhohudhoo* women where they talked about the antisocial behaviour of others in the tsunami and the intermediate phase.

Chapter Summary

This chapter presented the findings of the analysis of the Sequence 1 and Sequence 2 interviews with Women participants. The Sequence 1 analysis found that the women's data can be explained in domains where the phenomenon of resiliency can be traced to provide explanations. These domains assisted in building the framework for the analysis of the data in the subsequent phases. The Sequence 2 analysis of the study demonstrated that the women's experience of the December 2004 tsunami was understood in periods of four distinct timelines of tsunami, immediate, intermediate and longer term. The findings of the Sequence 3 analysis of others who helped the women to rebuild their lives are presented in chapter 6.

Chapter Six: Findings of Sequence 3 Analysis

Introduction

This chapter describes the findings of the Sequence 3 analysis of interviews with groups who assisted the women in rebuilding their lives. The groups are Family including husbands and the host families, Volunteers, Health Professionals, Army and National Disaster Management Centre (NDMC). The timelines identified in the Sequence 2 analysis guided the analysis of the findings in this chapter. The findings are presented for each island in the timelines of tsunami phase, immediate phase, intermediate and longer term phases. The chapter presents the findings for each island in sections that follow this sequence: *Gemendhoo*, *Kadholhudhoo*, *Vilifushi* and *Madifushi*.

Gemendhoo

Control

Tsunami phase

In the tsunami phase, only the families of the women discussed the women's sense of personal control. They described the stressors the women experienced. A few teenage boys of the families on the island described the fright the scared women underwent when they struggled to survive. One teenager boy described it this way:

They were frightened and was struggling to get on to dry land. In the middle of the island there is an elevated area where there are lots of coconut trees. Most women climbed on to the roots of these trees. When the water gets shallow, they run and try to climb on to the dhonis.

According to them, in this frightened state the spiritual resource of praying helped the women to regain their personal control. Some husbands believed that the decisions made by the teenage boys to look for the surviving women who were washed away into the sea and rescuing them in the *bohkuraas* helped the women to achieve a sense of personal control.

Immediate phase

In addition to the Family, Health Professionals and the Volunteers described the women's fright in terms of personal control during this immediate phase of the disaster. A host family member explained:

The main thing I noticed with the women were how frightened they were. In the immediate few days there was a tsunami warning and all of them were crying with fright. They carried their children and ran to hide.

Most of the Family group had the view that, in the first few weeks after the tsunami, the women had a loss of normality where they were not able to eat or engage with life. They were not caring for their children either, but just sitting dazed and not doing anything.

The Family, Health Professionals and the Volunteers noted that in this phase the women were crying as a way of coping. The Family group noted that by the end of the first week after the tsunami a few women gradually became more active and involved in household chores which helped them to regain their personal control. Some other members of the Family group highlighted that in this phase a few women started having hopes of going back to their island, which helped them regain their personal control.

Intermediate phase

Family, Volunteers and the Army stated their perceptions on the women's sense of personal control in intermediate phase. Again, the women's fear and fright were highlighted by the Family group and Volunteers as a factor causing the women to lose personal control. It was explained by a Volunteer as:

They have the sound of the waves in their heads. If they hear a wave crashing, then that's it. If there was a swell they were frightened. They will come out of their house on to the streets and huddle together.

However, according to the Family, Health Professionals and the Army, by this phase most women started regaining their sense of personal control. About two months after the tsunami the host families noted that most women had resumed normal activities even though they had not fully recovered. The women had started to rebuild their lives. Living with the host families was not easy for them, so some moved to temporary shelters that were being built, which made them more independent and happier. According to the Families, in this phase the women crossed a significant milestone in rebuilding their lives:

There was so much destruction in their island, the government did not want them to go back, but stay in this island. It was big decision for them to decide to permanently stay here.

A host family member noted that in this phase the government provided staple food, electricity and shelter, which was accepted gratefully and helped them to start earning an income. A Health Professional's view was that the provision of the temporary shelters made them determined than the host community and started using communal resources for income generation. A contrasting view was offered by the Army. An Army officer stated the women were provided more staple food than what they needed, which resulted in them continuing to take the aid, and storing the excess or distributing it to families and friends in other islands. A more moderate view offered by another Army officer is that the women needed help so they accepted anything that was offered.

Some Army officers stated that in this phase women had no goals for their lives. But there were some Families and Health Professionals who believed the provision of temporary shelters was the turning point for the women to start thinking about their future. It was explained by a host family as:

Within three months the temporary shelters were built. It was in the centre of the island. They were all in one place. They started their traditional work of collecting nuts and thatch weaving. They started growing vegetables in the courtyards. They were earning. Their disillusion vanished and became very active.

Longer term phase

Only the Army and the Volunteers offered views about the women's sense of personal control in the longer term phase. The discussions focused on the women's loss of personal control and their future hopes. The provision of electricity and shelter was continued, as was the food aid, which the Army and Volunteers felt to be in excess of the women's needs. It was noted that in this phase that while some continued sharing excess food, other started selling it. It was believed by a few Army people that because of the aid, the women and their families had no intention of finding a means to earn, and gave examples of some who did not want to move from the temporary shelters to

permanent housing.

Both the Army and Volunteers noticed that earlier in this phase women had no intention of rebuilding their lives and had no hope. But the Volunteers stated that the women began to think about their future when the government announced the provision of permanent shelters about a year later. Army personnel reported that with assistance from the awareness programs by International Aid Agencies, the women, along with their partners, started income generating activities such as fish processing.

Coherence

Tsunami phase

Only the Families of the women expressed their views on the sense of personal coherence of the women during the tsunami phase. Most husbands and host families noticed the extent of worry and level of anxiety that afflicted the women, most of whom were described as crying immensely.

The Families also elucidated their understanding of the impact on the women. When the tsunami hit the island, only women and teenage boys were around. A husband questioned what the women could do in that situation, while another husband's view was probably they would think about their children. A family member from the relocated host island summed up by stating that when he received the women they were in '*a state of unknown about their future*'. The Families also believed that in this phase the women would not have any questions. It was explained by a host family member as:

They were frozen and looked like they were unable to speak. So, they were not asking questions.

Immediate phase

The women's sense of personal control in the immediate phase was discussed by the Family, Health Professionals and the Army. The meaning of the disaster for the women in this phase was described by a host family member:

The women were very disillusioned. They were in a state where they cannot even fathom how their lives will be.

An Army personnel's connotation of the disaster was his posting to *Gemendhoo* to assist the women and their families was that it was a patriotic work that he had to do. Another Army personnel's view was that the significance of the disaster for the people was pride in the women who saved lives.

In this phase, most husbands of the women said that some women did not have any strength to explain themselves or express their emotion. But a few others had a different view. A husband said that his wife expressed her feelings. A few Health Professionals noticed that the women were describing the disaster more than expressing what they were feeling. In this phase, most Family group members and Health Professionals said that the women were not asking any questions. But there were rare instances in which women asked questions. A husband mentioned that his wife asked him how they would live and what would happen to them. Another woman asked a Health Professional when she could return to her island.

Intermediate phase

In this phase the people in all the groups that helped the women (except the NDMC) discussed the women's sense of personal coherence. It was noted that in this phase too, the women were still describing the events of the tsunami. According to a few Volunteers the women were talking more about what they had lost, being their homes and savings.

It was noticed by a few Families and Volunteers that younger women especially asked when they would be allocated temporary shelter. On the contrary, a few Army officers stated that the women were not asking questions but raising issues such as the difficulties they were experiencing in sharing facilities and any unfulfilled needs. In this atmosphere the role of the Army was reiterated by one officer as:

Some women say what was being distributed were not enough. We don't respond to that. We were not there to listen to their concerns. We were there just to distribute the goods.

An observation of the Family, Health Professionals and Volunteers was that in this phase the women did not remark on their future hopes.

The meaning of what the women were going through was expressed by the Family and the Army. A host family member said that she could feel their sorrow and grief. The women's lives were described by an Army officer as:

I think living in a tent will be very different from a normal ordinary life. The initial tents that were given was like the ones you take camping in the field in the desert, made from cloth. And there was close by makeshift bathrooms for showering near these tents. So how could they have an ordinary normal life.

Longer term phase

An Army personnel mentioned his impression of the Gemendhoo women during the longer term phase only. It was summed up as:

The women are different from Kudahuvadhoo women and they still are the way they were.

Connectedness

Tsunami phase

Family and Volunteers only described the women's sense of personal connectedness during the tsunami phase. The young adult boys from the women's families stated that women were gathering their families and looking for those missing. They tried to account for everyone. After the women were relocated to the host island, unknowingly the host island community continued this behaviour, as explained by a Volunteer: when the women were roomed in the host houses, the hosts ensured that no one from their families were segregated. This action was further explained by a Volunteer:

This may be the reason why we did not see much other effects of the trauma.

Immediate phase

The women's sense of personal connectedness in the immediate phase were discussed by all groups who helped the women except NDMC. The first meeting with the host was described by the Families as welcoming:

The day we came the host family was very kind. They took the women and children to their homes. They provided them food.

A host family member supported this perception. She said the immediate needs such as clothing were provided by the host community and the women accepted it whole heartedly. A Volunteer noted that the emotional support required by the women was provided by the host community too. The relationship between the host community was described by an Army personnel. According to him, in this phase the women and their families were distributed amongst the host households and there was a good bond between the women and their hosts. Within a week of this constructive environment, a Volunteer noticed the men joining the host fishermen to go fishing. These bonds were developed into stable relationships by the women. However, in this phase a Health Professionals' observation was different. She said that the women were not helping the host family they were living with:

I did not notice the women helping the host family. I think they did not have strength for that. But they were looking after their own children.

Intermediate phase

The Family, Health Professionals and the Army stated their views on the women's sense of personal connectedness in the intermediate phase. Both husbands and the hosts stated the women had established bonds with the host community and good relationships were being developed. As explained by a host family:

The relationship was good with the host community after they moved to the temporary shelters. They use, to visit their host residences and the host families also visited them in their temporary shelters.

However, the Army personnel's view was different. One stated that after the women moved to temporary shelters, it was a separate life for them. Even in communal activities they did not work together with the host as a community. But the Health Professional's view was contradictory, with one of them observing that the women were participating in community work in this phase. In addition, it was observed by the Families and some other Army personnel that the women and their families were receiving social support from the host families. They supported them with encouragement and advice to move on with their lives. The Army specifically noted the assistance they received from the host community to build the temporary shelters for the women and their families.

The lifestyle differences between the two communities in this phase were observed by the host families, Health Professionals and the Army. These contrasting views of the plight of the women and their families in the host community were summed up by an Army personnel:

Kudahuvadho is a well-disciplined community. When Gemendho people came the crops from the vegetable farms were being stolen. And the youth were aggravating the host community. The government was providing financial support to these families. The men started working and earning. They started buying big motorcycles which was new for the host community. When the youth starts speeding on these bikes, naturally it will be a nuisance. The host community became apprehensive. Now they are sheltered away, and they come to the host side of the island if there is a dire need. So, I think the issues have resolved.

Longer term phase

A Volunteer noted an aspect of the women's sense of personal connectedness in the longer term phase only. She said:

They will stick together as a community. Even if they go for communal activities, they women will be together with others from their island.

Role of women

Tsunami phase

In the tsunami the Families of the women stated that there was no difference in the role of the men and women in the rescue efforts, but a Volunteer believed that women demonstrated astonishing strength in this phase, saying:

When the vessels get closer, they were jumping into it. Normally a woman cannot do it.

Immediate phase

Volunteers and the Families talked about the physical strength displayed by the women in the immediate phase. A Volunteer stated that women did not hesitate to do any type of physical work during the clean-up. A husband agreed, saying the women were like men in lifting heavy objects and they brought everything to the host island from their destroyed homes. He supported his view by saying:

The women are used to physical work. They go to the bush and collect firewood. They husk coconuts, so they can do physical work.

Intermediate phase

Only the Army discussed the women's role in this phase. Most of the Army personnel stated that the women's role had not changed, and they were still playing a similar role as before the tsunami. It was explained this way:

The women's role did not change. The men helped build the tents too. The women obediently stayed at home with their children. They were mostly in the kitchen or looking after the children. They perform that role very diligently.

Longer term phase

The Family and Volunteers talked about the women's role in the longer term phase. The Volunteers said that they did not see any difference in the women's role. On the contrary, Family group members believed the women's role had changed because of the tsunami:

In Gemendhoo there is hardly any woman who does not know how to punt a bohkuraa. They will punt to the nearby islands. They often take nets and catch fish in the lagoons. This role has changed because this island has no lagoons and they cannot do it.

Attitude and behaviour

None of the groups that assisted the women talked about the attitude and behaviour of others towards the women during the tsunami phase and the immediate phase.

Intermediate phase

In the immediate phase of the disaster the Family, Health Professionals and the Army discussed the attitude and behaviour of others towards the women. Some in all three groups stated that there was no change in the women because of the tsunami. A few husbands and host families saw the women as a resilient group who were brave, energetic, keen and willing to get things done. Other family members stated that after the tsunami there was a spiritual impact on the women. It was explained this way:

They started giving more attention to faith. There is hardly anyone who does not pray regularly. Before there were only few women who wear hijab. Now there is hardly anyone one without hijab.

The Army had different perceptions. Some personnel thought the women were not participating in rebuilding efforts and were just sitting idle. A husband's observation of the women was as a group they were affected psychologically and still unsettled in this intermediate phase.

Longer term phase

With the exception being Health Professionals all other groups who helped the women in the longer term phase talked about the attitude and behaviours of others towards the women. A husband believed the women had gone through a lot and were longing to go back to their own island. An observation by an official of NDMC was that in this phase the women had become more aware of why such disasters occur. An Army official's observation was that the women changed their activities to generate income; no longer did they go into the bush to collect wood from fallen trees, in order to craft items to sell as a source of income because there no longer was a need: they were provided with all the basic items after the tsunami. A few Army personnel and few host families noted different behaviour, saying the host community were regarded as much quieter whereas the women and their families were regarded as noisier.

The Volunteers stated their opinions on the women. They believed that some women had primitive habits and social norms, while the host community was more developed. It was explained this way:

They have primitive habits and social norms. If a child wants to pee, they will let them pee on the street. The host community is not used to it and did not accept them because of such behaviours. They believed that host children's behaviour is failing because of these children.

The officials from the NDMC described the women as a group that has become religious, who wear veils and burqas, who do no work or even come out of their houses.

There were only one or two who wear veils before the tsunami now it is almost everyone. They are a bit extremist group.

Kadholhudhoo

Control

Tsunami phase

The Families and Health Professionals talked about the *Kadholhudhoo* women in the tsunami phase, in particular the stress the women encountered, which made them to lose their sense of personal control. The main stressor stated was the women's fright. A husband said women suffered because they were in this state for a length of time with no food and water. According to a host family member and a Health Professional the helpless state the women were in contributed to their loss of personal control. As a result, the women followed the decisions of the island leaders to relocate. It was explained by a husband this way:

People from other island came to fetch us. People went in groups. They wanted to go to a dry land, so they left as quickly as possible. They did not go because the other islands were better.

Immediate phase

In the immediate phase the Families, Health Professional and the Army stated their views on what contributed to the women's sense of personal control. The Families noted that in this phase the women continued to cry and were feeling helpless. The view of the host families was that when the women were gradually getting back to normal they were still scared, which added to their loss of personal control. The women were still frightened according to a Health Professional when they heard any disaster warnings. An Army officer gave this synopsis of the women:

They were like victims. They will eat when they are offered food by someone else. They are not motivated to prepare their own food even. They did not try to overcome it and start recovering.

Intermediate phase

In the intermediate phase of the disaster all groups except the NDMC spoke about the women's sense of personal control. The Health Professionals noted that the women were becoming emotionally unstable because fear of the disaster contributed to their loss of personal control. On the other hand the Army and Volunteers felt the women

were losing their personal control because of difficulties in family relationships. It was explained by an Army staff this way:

It is a family living in one or two room for a prolonged length of time. Everything happened in this room. Parents and children sleep there. They all watch TV, cook and eat there. The children see and hear what goes. There was an impact on the discipline of the children and their behaviour went downhill. Teenage pregnancies out of wedlock happened.

The Family, Health Professionals and the Army perceived that the women had gained their personal control as most women had moved into temporary shelters about three months after the tsunami and were living a normal life.

It was stated by the Families and the Army that women started to have a future hope in this phase. Although most husbands said the women had hopes for the future and wanted to live independently, the observation of host families was that they did not talk about how they would like to live. The Army noted that the government was aware of the hopes and difficulties the women were facing and tried to expedite the building of shelters before they moved on to rebuilding an island for them.

Longer term phase

The women's sense of personal control was discussed in the longer term phase by the Family, Volunteers and Health Professionals. The aid given to the women was seen by some Family members and Volunteers as an approach that helped them immensely and assisted them to gain a sense of their personal control. It enabled them to save and was a pathway to independent living. But building an island for them to move permanently to was seen as a continuation of this provision of aid by a few Family members and a few Volunteers regarded it as a risk for creating dependency.

A few family members stated that the women started to have future hopes in this phase. They said it was after the numerous psychosocial support programs provided by non-government organizations. These programs were commenced 5 months after the tsunami and after about a year, according to Family members and Health Professionals, the women had started focusing on rebuilding their lives.

In Kadholhudhoo the women lived in very small households as it was a

congested island. So, the cramped temporary shelters were not an issue. There main concern was the island where they will permanently migrate. There future hope was each of them to get a separate housing unit.

Coherence

Tsunami phase

In the tsunami phase the perceptions of the sense of personal control of the women were described only by Family and Health Professionals. Most Health Professionals said the women cried. According to most family members they were crying because they were frightened. A husband's description was:

Most women were crying as they cannot go back to their houses as it was flooded. It was heart breaking.

As to the state of the women, a Health Professional noted that even though they were not talking or asking questions they were describing what happened to them.

Immediate phase

The Family, Health Professionals and the Army stated their views on the women's sense of personal coherence. In this phase it was observed by some Health Professionals that the women were describing the event. This view was congruent with a family member who stated that they looked sad and only talked about the things they had lost.

In this phase, according to a few Army personnel and family members, the women were not asking questions. However, a Health Professional stated that a woman asked her what could she do, as she had lost everything that she had. This view was also elaborated by one husband as:

As soon as she saw me, she started crying. She asked me what we can do?

Intermediate phase

The five groups who helped the women rebuild their lives in the intermediate phase talked about their perceptions of the women's sense of personal coherence. In this phase women started asking questions. A few husbands stated that the women did not

have specific questions, but a few host family members stated that the women were asking why the disaster happened. The Volunteers noted that the main concern of the women was what would happen to their children's future. According to a few Army and NDMC personnel, the main question asked by the women were about how they would live and when the island where they would be relocated would be completed.

According to the Army the women tried to get answers to the questions through formal channels.

The women try to get answers. Culturally the women will push the men to go and get the answers. The women play a huge role in it. Inside the house the women will make the men understand and push them to find the information on the status of the shelters that were being built.

Family members discussed how the women expressed their feelings. A husband mentioned how his wife talked about how scared she was, while another said his wife did not talk about the impact of the tsunami on her life. A host family observed that the women did not talk about the issues they were facing and only started expressing their thoughts when the temporary shelters were being built for them. The Health Professionals' view was different. They observed that although the younger women did not talk about the impact on their lives in this phase, the older women talked about the disaster and became upset, often crying.

In this phase, a few Family members, Health Professionals and Army noted that the women did not talk about their future, but only about their present needs. The Army described most women in this phase as a traumatized group of people being strong. Volunteers perceived the women as trying to ease their concerns. It was explained as:

They say everything will work out for the best. That is common phrase I have heard from the women.

Longer term phase

The Family and Army discussed the women's sense of personal coherence in the longer term phase only. A husband observed that the women were still scared and unsettled, and that it took the women about 3 years to being thinking about and expressing their thoughts about their future. The host families noted that the women

had good relationships amongst themselves, and when they had visitors from nearby islands they discussed their future. Another husband noted the women talked about the way they had to leave their island, which brought back memories of their previous lives, a highlight being how the women were always with their neighbours. An Army officer explained the women's experiences this way:

I think the experience for them were different because sea life is normal daily life of many Maldivians. But for a place like Sri Lanka when the waves flooded the centre grounds it will be a very different experience for them. The women are used to the sea and they have strong spirituality. Spiritually they believe that incidences will happen and then you go on living and normalcy will return once again.

Connectedness

Tsunami phase

A few husbands of the women mentioned that the women tried to achieve a sense of personal connectedness by gathering others in the tsunami phase. A husband explained:

When I returned from fishing, I met my wife at the jetty. The first thing she said was that she was leaving to the island of Maduvari and to come with her. She was looking for a niece and waited for me. Her mother was already on the dhoni, ready to leave.

Immediate phase

Family, Health Professional and the NDMC expressed their views on the women's sense of personal connectedness in the immediate phase of the disaster. A respondent from the NDMC explained the relocation of the island community:

By noon everyone had evacuated the island. Very few were left behind. They were the last ones. On request from the Atoll Office, dhonis came from different islands at different times. Some families were split. It was an island in the same atoll but still it is a matter of concern. It was a failure in communication, so there were grievances. Later they were reunited.

The NDMC respondent noted that host communities came out to welcome them and took them into their homes. In this welcoming immediate phase, the host community

provided an immense amount of social support to the women and their families by providing their immediate needs.

The women and their families were observed by the Health Professionals as a close-knit group with stable bonds. It was noted that this could have been a contributing factor for the rapid recovery of the women, allowing them to return to normality. Another Health Professional stated that the community was very different from the host community and were friendly. This aspect was elaborated by a host family when she was talking about the family that she took in. She said she was able to bond with the family that she took in because they were quieter compared to other families.

Intermediate phase

The five groups who assisted the women stated their views on the women's sense of personal connectedness in the intermediate phase. The Family and the Volunteers noted that only on special occasions did the women bond with the host community. However, the Army, NDMC and some Volunteers noted the women were unable to bond with the host community as issues started arising because their stay was prolonged. An Army personnel explained it this way:

First it was good. Later there were issues. The community has unusual norms. They are not very law-abiding group. They have a very rough lifestyle. On the contrary the host community is very law abiding, quiet and hardworking community.

The host families noted that the impact of these lifestyle differences caused the host community to suffer:

Our children's behaviour changed. Their education suffered. Substance abuse in the community became widespread. Theft increased. Because of the tsunami we had four years of misery.

On the contrary, the Army and Health Professionals observed that the women had good relationships within their own community, and they helped each other. An Army personnel stated that, despite hostility, the host community helped the women to rebuild their lives and the Families noted the support offered by host families when they were hosted in their homes.

Longer term phase

All groups who assisted the women in the longer term phase mentioned the women's sense of personal connectedness. The Health Professionals and Volunteers described the issues that led to a state where the bonds between the two communities were strained. The Volunteers stated that the people of both islands were very different, and the women's community was unable to fit into the host communities because they were often more hyperactive and louder. The Health Professional agreed by stating that the host islands were quiet and calm societies and remained silent when the guests behaved in an unruly manner until a physical fight erupts. The host family and Army stated that tensions became larger resulting in stealing, vandalization of property and physical fights. An Army official explained:

Many problems were there, and they had lots of issues. It started from problems that arose between kids. They take up these issues with the host communities in each island they were in and it ends up in fights. They are an unusual group of people.

Role of women

The role of the women in the tsunami phase was not discussed by any of the groups that assisted the women.

Immediate phase

Only the Health Professionals stated their views on the role of the women during the immediate phase of the disaster. A few noted they did not notice any changes in the women's role during this phase.

Intermediate phase

The women's role in the intermediate phase was discussed by an Army officer who said he did not observe the women doing any physical work that men did.

Longer term phase

All the groups who assisted the women in the longer term phase talked about their roles. Health Professionals and Army officers stated there was no change in the women's role. A Health Professional observed that the women played an active role

by getting jobs and starting income generating activities as before they only depended on fishing activities of their husbands. In addition, they started to play a role in children's education by taking them to school whereas before it was not an important thing to do. The official from the NDMC agreed with this view.

The view of the Volunteers was that the women had become stronger and resilient. It was explained as:

Many women said they have got the ability to take initiations. Some women said they before they cannot even talk in front of people. But now they are able to speak out their concerns to the government officials and care teams who visited them.

Despite the opinion of the host families that women did not demonstrate any leadership role in this phase, a Volunteer stated the women played a role in protecting their families and keeping them secure in this phase as the women expressed concerns that teenage boys and girls had to sleep in the same rooms, and they were struggling to manage these issues.

Attitude and behaviour of others

The attitude and behaviours of others towards the women in the Tsunami and immediate phase was not described by any of the groups who helped them.

Intermediate phase

All the groups except the Volunteers discussed the attitudes and behaviours towards the women during the intermediate phase. The family and the Health Professionals said there were no changes in the women, although other families stated that the women's lifestyle changed because of the tsunami. For example:

Kadholhudhoo is based on an economy of fishing. When they moved to the host island their way of fishing changed. They had to travel far and had to be away for a week. The women stopped the cooking of fishing as no catch was brought home.

The host families believed the women and their families created a social upheaval, because the sudden influx of people had an impact on the sanitation and sewerage

systems of the host islands. The Army said the women were an idle group who did not do anything to rebuild their lives and expected the government to do everything for them. The host families saw the women as a group who depended on them, as they were not working towards getting their lives back. The Health Professionals described the women as a group who presented with psychosomatic symptoms with no actual physical illness. An official from the NDMC said by this phase the women had forgotten the incident and had gone back to the previous ways of living.

Longer term phase

All groups that helped the women in the longer term phase spoke about their attitude and behaviours towards the women. Most husbands stated that there were no changes in the women but other groups discussed the ways the women had changed. The Health Professionals noted that women's way of dressing changed to follow a similar fashion as the host community. The Family noted that women demonstrated signs of anxiety and fright, resolved by counselling through the NGOs and host communities. The Health Professionals and the host families noted that the women and their families had different values and principles in life, which tended to be disruptive because they do not obey the laws and the norms. An example of this perception:

If they come to the hospital, they will want their needs attended immediately even with use of force. If it does not happen, they will shout and create a scene. The women usually start it and husbands will join them.

The host families and Health Professionals noted the impact of this on the community, as children began to learn these behaviours as a norm.

The children in the host community use more foul language than before. Antisocial behaviour such as stealing is more common. There is no hesitation in speaking out and demanding what they want.

The Army saw the women and their families as an arrogant and stubborn group of people whereas the Volunteers saw them as a group of very strong women; yet again, the husbands stated that the awareness of their wives increased in this phase. The host family saw the women as a group that had forgotten what the tsunami had done to their lives. The official from NDMC described the women in this phase as more intelligent

and active than the men, because they took the opportunity to participate in awareness programs. They were also described as a group who did not complain and would physically fight to get their needs met. However, the Army saw the women as a group who stayed at home while the men went away to work.

Vilifushi

Control

Tsunami phase

A few Health Professionals and a family member stated their views on the women's sense of personal control on the island of Vilifushi. The Health Professionals described the helplessness of the women and how they were running around looking for any assistance. The frantic situation was explained this way:

Many were injured. People were with fractures, big wounds and cuts. We were just waiting, and the waves started getting more volatile. Everyone thought another wave was coming and started running for safety. People were falling, some were fainting. Some did not know what to do. Others climbed into any vessel they could get into. They were helpless.

According to a Health Professional and a husband, the women wanted to move to another island because their own island was destroyed. But thoughts about this decision varied, as some believed that if they left they may not find the people who lost their lives, while others were reluctant to go and see whether their houses were habitable.

Immediate phase

The Family, Health Professionals, Volunteers and the Army expressed their views on the women's sense of personal control during the immediate phase. The Health Professionals stated that the women were still frightened, which contributed to their loss of personal control, whereas the Family noted a few women were sad with psychological issues that restricted them from their normal activities of daily living.

The coping mechanisms the women implemented were explained by the people who assisted the women. One of the main strategies was expressing emotions. The Health Professionals stated the women showed emotions related to fear as they were scared.

On the other hand, Volunteers and Army personnel noted women showed anger when others tried to help them or to record the destruction. The explanation offered by an Army personnel was:

They were angry at the government. I think it was because they did not receive any assistance. They received any food after more than 24 hours.

In the view of some Health Professionals and the Army most women coped by carrying out their daily activities and getting on with their lives. According to another Health Professional the women's participation in the decision making on their future to rebuild the island helped the women to cope. In addition, a Health Professional noted that women coped by demonstrating psychosomatic issues as many women came to them with chest pain. The Army noted that women looked for usable items from their ruined homes, which helped them to gain their personal control. However, the host families noted that the main thing which helped the women to regain their personal control was their hope of going back to their island in the future.

Intermediate phase

All the groups who assisted the women in the immediate phase, except the Volunteers, expressed their views on the women's sense of personal control. Even in this phase according to Family, Health Professionals and the Army their emotions were contributing to their loss of personal control. The Family stated that the women were still frightened and scared. The Army's observation was that the women were affected psychologically but nothing was done to overcome that. The Health Professionals noted that the living conditions of the women who shared small households was an aggravating factor that prolonged psychological issues.

The host families and Army say the women regained some personal control after about three months because by then they had regained some normality in their lives. The women's initiatives to make decisions about how their lives would be shaped helped them regain their personal control. They played a role in the decision of the whole community to move to one host island. They lobbied for the decision by visiting households and getting support. The Family and Army observed that the women had started income generating activities, which helped them regain control of their lives.

The Family stated that the women started thinking about their future in this phase when they were able to move into the temporary shelters. But the Family and Army stated that there were a few women who did not have any future hopes because they felt that they were not achieving what they wanted. According to Army and the Family the foremost future hope for the women was going back to *Vilifushi* and resettling. An Army personnel explained it as:

Their thoughts were focused on when they can return back to their island. They just love their island and don't want to let go of it. They wanted to rebuild and go back there to start their lives.

Longer term phase

All the groups who assisted the women in the longer term phase, except the Army, spoke of the women's sense of personal control. The Volunteers noted the women were still experiencing loss of personal control when alarmed at hearing loud noises or in crowds. It was noted that although the women wanted to talk and express their emotions in this phase they did not have any coping strategies for times of distress. One of the strategies used by the women to regain personal control of their lives was to earn income. An official from the NDMC and the Volunteers stated that women were working very hard to earn a living. It was explained by a Volunteer:

They were happy when they receive help to advance their income generating activities. It was easy for them to proceed with their work. With support they were able to buy more fish and enhance their fish processing business. With the grants their life is getting better.

The women's goal of rebuilding their lives by returning to their island was noted by the Families and the Volunteers as an aspect that helped them to regain their personal control.

The Family, Health Professionals and Volunteers noted that the women had future hopes in this phase, three years after the tsunami, when they started seeing the island being rebuilt, because their focus had always been on rebuilding their own island. A Volunteer explained:

Most women feel that the government cannot support them anymore as there is a change in the political leadership of the country. They are

hesitant and reluctant to pursue these matters. The island leadership do not want to relocate until all the projects are completed. But more than sixty percent of the people want to move as soon as possible.

Coherence

Tsunami phase

The Health Professionals and the Family members stated their views on the *Vilifushi* women's personal sense of coherence in this phase. The Health Professionals described how some women cried with fear, while others were frozen and in shock. A husband explained the women were trying to stay safe with their children, a view agreed to by a female Health Professional who said that seeing her children safe gave her strength to look after the injured.

In this frantic situation, the husbands of the women said that the women were not expressing their thoughts or specifically looking for any answers. The only noticeable thing from the women was that they thought it was the day of the judgement.

Immediate phase

The Family, Health Professionals, Volunteers and the Army talked about the women's sense of personal coherence in the immediate phase. They observed the women were still frightened, but were describing their experiences, not stating their emotions. A Health Professional:

They were frightened. They were still seeing the devastations of the incident. Their livelihood was gone. They were in shock and mentally unstable specially the women. All wanted to share their stories and were describing the event.

The Family, Health Professionals and Volunteers stated that the women were not asking any questions in this phase. However, the Army said the women were asking them questions related to government policies. They wanted to know what the Army or government would do for them and asked whether their island would be rebuild. The answers to these questions were given to them through media public announcements. This action was explained by an Army personnel:

A rebuilding plan of Vilufushi was drawn up and how the new island will look was shared with media and reported on the local TV channel. It was publicly shared to show the commitment of the government.

The Army also noted that the *Katheeb* of the island had not shared the information with the island community, as probably he had no means of gathering everyone who were scattered in different islands.

Intermediate phase

The Army, Family and Health Professionals discussed the women's sense of personal coherence during the intermediate phase. A host family stated that most women did not have any questions, but a husband said his wife asked questions about when she would be able to return to Vilufushi. This is congruent with the Army personnel and Health Professionals who said the women often asked questions about the uncertainty of returning to their island. It was explained by an Army staff:

They listened and watch the news regularly. They questioned why their island rebuilding has not commenced. They say it is just talks and plans.

An Army personnel stated that they themselves tried to get the answers from government officials and often the women had more information than they did. In this phase the Army stated the women were complaining about their unmet needs more than expressing what they wanted. The host families said they had difficulty conversing with the women as they often promoted their own island. The Health Professionals' observations were different, saying the women did not speak publicly in formal meetings with the international NGO that was building their island, instead listening before returning home to discuss with their husbands and make the husbands voice what the women wanted.

Longer term phase

All the groups who assisted the women rebuild their lives, except the Family, talked about the women's sense of personal coherence in the longer term phase. Early in this phase the Volunteers noted the women were describing the event and expressing their unfulfilled needs. Later in this phase the Health Professionals found the women did

not want to talk about the tsunami. According to the Volunteers the women became more open about issues that they were hesitant to express before.

They have shared households. The husbands get angry when they cannot have intimate relationships as children were around. They don't have space for children to study. Before they are shy to talk about these things but now, they do.

The Volunteers stated that in this phase the women asked questions related to their island which was being rebuilt. It was explained by a Volunteer:

They seem to be more interested in asking questions about things like water pumps, the most expensive pumps you can get. Why isn't the plot size of my house bigger? Questions like that oppose to things like about their future.

A Volunteer said the women did not have a strategy to find answers but were asking the same question of everyone who visited. Another Volunteer said they asked everyone because they were not getting a meaningful answer. This view is congruent with a Health Professional who said:

When different donor agencies work on the same project the same concerns are raised with all of them. The women tell us that while one agency says the issue has been addressed the other say nothing has been done about it. This shows the women are not satisfied with the answers they get so they ask everyone the same question.

On the other hand, a Health Professional noted that the women followed the news media which gave details of donor assistance and if it did not tally with the actual assistance the women raised their concerns. The official from the NDMC expressed their view of the Vilifushi women and their families:

Vilifushi got the best deal from all the affected island. They did what was told and had a good relationship with the international NGO IFRC and the government ministry. They were worst hit, and reconstruction was fast as most attention had to be given to them. They had many complaints, but we were able to deal as they were not a group who got angry and shouted. The community was good, and the community leaders were good.

Connectedness

Tsunami phase

The Health Professionals stated their opinions of the sense of personal connectedness of the women in this phase as looking for their families and the Health Professionals participated in the search.

Immediate phase

Those who helped the women in the immediate phase (except the NDMC) stated their views on their sense of personal connectedness. The Volunteers said the women gathered together their children, whereas the Army said there were a few women who worked with them in the clean-up of the island. The Health Professionals noted that in this phase the women were seeking their acquaintances in the host islands and moved in with them. They also stated that the bonds built in this phase with the host community were stable bonds with good relationships. The Families agreed by stating that the host community provided social support to the women and gave food and clothing. The Army also had the same opinion. They said the host communities provided support to the women and their Families in cleaning up the island:

Many men and women from nearby island come to help every day.

Intermediate phase

All the groups who assisted the women in the intermediate phase spoke about their personal connectedness. According to the host families the women who had relationships with a host community prior to the tsunami bonded with them easily and settled well. The Volunteers observed the women bonding with others from their island community and assisting each other. The Army noted that the resources in the host community were not enough to cater to the larger *Vilifushi* population and required expansion, but the host community helped and shared whatever they had with the women and their families. The Army also said that even when requested, the women and their families did not assist the Army in its tasks, but the host community helped them with providing infrastructure. This view was supported by an official from the NDMC; he stated that the host community of *Buruni* was the best in the tsunami disaster. He explained:

They are a simple community and they acknowledged what Vilifushi people had done for them in the past.

All groups and the host from the Family groups all agreed that the women and their families were unable to bond with the host community. The Army stated that the women's community and the host were like two groups; they did not observe them working together and eventually the rift resulted in disputes. The hosts' observation was the women and their families lived in isolation, by themselves without any association with the host community. The official from the NDMC offered an explanation:

Buruni is a very small community, quite poor as well. Vilifushi is one of the most eminent well-off communities in the atoll. When they went to the smaller island, they were welcomed. It was a good start. But when a larger community comes into a smaller community many issues will emerge as it is two different personality communities.

It was difficult for the host families to understand the reason for the misunderstandings, but they believed that disputes were occurring because the women and their community was a group that could not live with other people.

Long term phase

All the groups who assisted the women talked about the women's sense of personal connectedness in the longer term phase. All mentioned the conflicts between the host community and the women and their families. The NDMC official explained:

The temporary shelters were planned to be built near the Buruni community so later it can be used by the host. But the Vilifushi women did not want that and did not agree to the proposals. Negotiations took six months. They wanted a separate ward for them. I was involved in the discussions and they were so emotional in not agreeing to the plans.

The Volunteers noted that conflict arose even when the communities were separated. The Army personnel mentioned that the host community had treated the women and their families well, but when conflict arose there was little the host community could do because it was much smaller. The Army intervened to help the host leaders to

handle the situation. Some of the Family of the women stated that the relationship between the two communities was never good because it two different communities were on one island. Some other Family group members were of the opinion that it was a mixed relationship, in which some had good relationships with the host. On the other hand, a Volunteer said relationships have improved and explained further:

More could have been done to get certain people on board. It is around building right kind of relationships around right kind of people. That has been problematic and there is a cultural thing in some way as well.

However, according to the Health Professionals, the women had good relationships within their own community. The Volunteers described the support that was provided to build relationships within the island community. A livelihood program was offered in which a large amount of money was spent on groups to work together to improve the levels of income. But this was perceived as unfair as it was not targeted to everyone in the island. A Volunteer explained:

The grants program is actually a mistake we made. We fund groups of people on the basis that they will be more productive. Most groups did not function at all. They basically fell apart as it is not the traditional way people work. People either work as extended family unit or kind of individually. People tend to work better in which ever group they tend to work in before. Here I would not describe one whole island as whole big extended type of family.

Role of women

Tsunami phase

The family of the women discussed the role of the women in this phase. The husbands said when the tsunami hit the island the women demonstrated their role of physical and emotional strength.

The women showed their strength. They were lifting heavy objects to rescue others. I swam to rescue women from the reef. Back at the jetty there was blood everywhere. Women were with cuts and bleeding. But they were carrying children and climbing into dhonis.

Immediate phase

Only the Army contributed their views on the role of the women in the immediate phase. Most Army people explained there was no change in the women's traditional role.

The women were more involved in cooking. They were providing food for us and other people who came to help in the clean-up. Cooking and cleaning are traditional female roles. They like to do it and they have to do it.

Intermediate phase

The role of the women in the intermediate phase was discussed by the Family, Army and the Volunteers. The role of the women was perceived to be a similar role as before the tsunami by the Volunteers and the Army. They were observed to be doing the housework and looking after the children. However, there were some Army and Volunteers who highlighted the impact of the tsunami on the women's traditional role within their households. The Family and the Army noted that the women supported the male roles by doing physical work in helping in the clean-up and assisting the delivery of goods to their shelters. The main role highlighted by the Army and the Family was that nearly all the women were engaged in some sort of income generating activity.

Longer term phase

All the groups who assisted the women discussed the women's role in the longer term phase. The Family and Health Professionals stated that there was no change in the women's role. A few Army personnel and some Volunteers described the women's role as an important but stereotypical traditional role of cooking, looking after their house, and caring for children.

In this phase, according to the Family and Volunteers, the women played a leadership role. The Family said on the host island the women leaders played a key role in disciplining the youth and monitoring them.

Disciplining the children were initiated the women after a meeting at the school. They grouped themselves into small groups to look after the higher

school children. There were leaders in these groups. Even at night they check on these children to see if they come out and roam the streets.

The Volunteers noted the women's leadership role in ensuring their voices were heard during transitional discussions about rebuilding their island. In addition, it was noted by the Volunteers and the Health Professionals that women played a significant active role in this phase by generating income through processing fish and agricultural activities.

Attitude and behaviour of others

Tsunami phase

Only the Family of the women stated their opinion of the women in this phase. A husband's view was:

Women are normally weaker than men. Some women can tolerate better than others. Even that day women were weaker, but they were forced to battle for survival as it was their children, their close family and friends that they had to rescue.

Immediate phase

The attitude towards the women and their behaviour in the immediate phase were discussed by the Health Professionals, Volunteers and the Army. A few Health Professional and Volunteers noted the big impact of the tsunami on the women's livelihood as there was loss of income, less living space and the way they lived. The Army observed the women to be angry with the government as they were not satisfied with basic services provided for them. In addition, their anger heightened when the government decided to relocate them to another island in order to rebuild *Vilifushi*.

Intermediate phase

The Army, Family and officials from NDMC discussed their attitude and behaviour in the intermediate phase towards the women. The Army's perception about the women was that initially in this phase they were a quiet and frightened group who loved their island very much. Later they became pompous. It was explained this way:

What happened to them after the tsunami was, they became very proud. When we take the supplies to the island jetty, they will even touch a

single item to be off loaded. They say it is not their job and wanted us to take it to the doorsteps of the shelters.

The women were seen by the Army as an unhappy group, always complaining about their unmet needs, who only accepted unused items as donations and who did not participate in any work to rebuild their lives. One Army official even described them as an angry, resentful group who blamed the government for any shortcomings.

The perception of the host families was that there were no changes in the women because of the tsunami but they were a group of people who invaded their lives and caused disharmony. The overall attitude towards the women were summed up by an official from the NDMC as:

The islands are ranked in the Maldives. Buruni is a smaller community and Vilifushi is a larger community with the benefactor and beneficiary relationship. Vilifushi was the caretaker. With the tsunami the relationship interchanged. Definitely they will help and will room them in but that belonginess, they will not get.

Longer term phase

All the five groups who assisted the women in the longer term phase talked about their attitude and behaviour towards the women. A Health Professional described the behaviour of the women as hardworking, in order to save money to make their lives better. The Family described the women as a group who wanted to live separately away from the host community, even in tents, as they did not want their children to have any social or behavioural changes.

All the groups who helped the women stated their perception of the women. The Volunteers described the women as a group who required and wanted assistance but did not know how to get assistance for their development. An international volunteer's perspective was that the women were very demanding with a very high expectation of what they thought the volunteer organizations should be doing. It was further explained as:

The women are very resourceful and practical people. There is a wealth of skills, capacity and ability to do things for themselves. But there has

been very little contribution from the community to the overall's community's recovery. Many of them have established their own means of very good income as means of family business and income generating activities. There have been lots of demands. Give, give, give but there has not been a huge of actually this is what we can do for ourselves.

The Army's perception was the women continued to be angry in this phase because there was an expectation that the government must give them back the life they had before. The host families described the women as a group with rigid attitudes, who were not obedient and did not listen to their *Katheeb*. Some said there was no impact on the women from the disaster, but they took the opportunity to secure their economic future from the aid they received. The Health Professionals' perspective was that the women had gone through a lot, so most were very disillusioned about their future and believed a future was only for the generations that followed. The officials from the NDMC described the women as highly emotional and a group who were dependent on others.

The women did not want their lives to be normal. They always want to depend on someone else's assistance. Each of my visits their complaints are never ending. Most of it are things they can rectify easily but they don't do it and they complain to someone else to fix it.

On the other hand, another personnel from the NDMC provided a contrary perspective that the people on the island were not dependant but thankful and appreciative of the assistance they received.

Madifushi

Control

Tsunami phase

Only the Health Professionals expressed their views about the women's sense of personal control in this phase. They said there were many injured victims, but under the guidance of the *Katheeb* the island community crossed over to the neighbouring island for safety, which helped the women to regain their personal control.

Immediate phase

Family, Health Professionals and the Volunteers expressed their opinions on the women's sense of personal control in the immediate phase of the disaster. The Health Professionals and the Volunteers noted that the women were expressing emotions to cope. The women were observed by the Volunteers to be more scared, worried and anxious in comparison to men. Both Health Professionals and Volunteers stated the women were crying as a coping mechanism. The highlighted the discussion on migration to another island as one of the reasons they cried. The kindness of the host island was emphasized by a Family member as a resource which helped them to cope. Husbands explained the strategies that helped the women to regain their personal control were the ability to make their own decision on permanent migration and the personal resource of praying. A husband stated

They prayed and it eased their anxieties and worries.

Intermediate phase

The Family, Health Professionals and the Volunteers discussed the women's sense of personal control in the intermediate phase. The three groups who helped the women stated that in this phase the women continued to express emotions that contributed to their loss of personal control. The women were sad and cried as they had to permanently migrate to another island. They were also frightened by large sea swells. In this phase the women employed strategies to help them regain their personal control. The host families observed that the women got back to normality when living in the host houses as they were focused on getting on with their lives. They used the assistance they received carefully, making the best optimum use of them.

In this phase they started planning their future move into their own shelters. In order to build their future, the Health Professionals observed the women looking for employment to earn an income. According to the husbands the women had hope when the government started discussions on their future and appropriate facilities such as schools and health centres.

Longer term phase

The women's sense of personal control in the longer term phase was discussed by the Family, Health, Professionals and Volunteers. The women moved to permanent

housing and all three groups stated that the women focused on earning income which helped them regain their personal control. It was explained by a host family member:

They looked for jobs. Jobs were given to all who applied. They are hoping to make their housing plots better than what it is now. They have these goals to make their lives better.

Coherence

Tsunami phase

The Family and Health Professionals described the ways the women achieved their personal sense of coherence in this phase. The husbands described how the women did not know what the tsunami was and what was happening to them, but they wondered whether it was a punishment from Allah. The women understood the swelling of the sea as an emergency and ran across the island alerting everyone to take refuge for safety. According to the Family the women were quite but were very concerned about the missing people and asked to look for them.

Immediate phase

All groups except the NDMC expressed their views on the women's personal sense of coherence in the immediate phase of the disaster. The meaning of the disaster in this phase was expressed by a few Family members. A host family stated that women and their families looked as if they had been lost in the sea and rescued. A husband believed that in the short period they were in the host island, they did not have any life as they had to sleep and eat together in a communal area in a school.

The Family, Volunteers and the Health Professionals noted that in this phase most women were not asking any questions. The only exception was where a husband observed women asking questions in the clean-up process.

The women were asking questions from the men when they were cleaning the island. Women were asking what to do next. The men were instructing them what to do. It was like two teams.

An Army officer's observation was that the women watched the news on television and became distressed when the video footage of the disaster made them recall the events they experienced. According to a Volunteer the women talked amongst

themselves to relieve these stresses and tensions. It was noted by a husband that in this phase the women did not have any vision of where they wanted to head and did not talk about their future.

Intermediate phase

All the groups who assisted the women in the intermediate phase, except the NDMC, stated their views on the women's sense of personal coherence. The Family said the women did not ask questions in this phase as they were being informed of what was going to happen to them. The women's understanding of migration was described by a Family member as:

The island people together with the women discussed the options. They saw them as an island with a small population who would do better if they migrated to a larger community. The women were upset as they did not want a change as they looked after the children and manage households. The women believed that in larger communities there were more chances for their children to misbehave because of the social issues that would occur in larger communities.

The host families stated that initially when living with them, the women looked unhappy and did not talk. But after a few months they started socializing with others and being part of the island community. The Volunteers' observation was that women did not talk about their feelings but instead described the survival efforts and the fear they experienced. An Army officer mentioned that women asked questions about the progress of building the shelters. On the other hand, the Health Professionals stated the women described the improvements in their lives as a result of migration:

They say they get more services that what they got from their own island. They say the access to the community services is easier. They don't talk about the disaster and they say they don't know how to talk about it.

Longer term phase

Only the Volunteers expressed their views on the women's sense of personal coherence during the longer term phase. The Volunteers stated that in even in this phase the women were still describing the events of their survival and did not talk about their feelings.

Connectedness

Tsunami phase

Only a Family member expressed views on the women's sense of personal connectedness in this phase of the disaster. It was explained by a husband how the island community was connected:

We gathered near the office. I met my family there. Then it was decided to walk across to the nearby island of Raiymandhoo. When we just reached the island the second wave came. Two of the islanders fell and was getting washed away. Everyone pulled them out, they were saved.

Immediate phase

Only the Family expressed their views on the women's sense of personal connectedness in the immediate phase. A husband believed that living together in a communal place developed stable bonds in the island community. As he explained:

The families were not segregated. It was like a team living together. There was no thought of giving priority to anyone or leaving one out.

Intermediate phase

All the groups who assisted the women in the intermediate phase discussed their sense of personal connectedness. The Family and the Volunteers noted that when the women had been housed in the host families, stable relationships were built and they were able to bond with the host community. It was noted by a family member that it was a positive relationship when the government assistance was shared with the host families they lived with. This bonding was observed by all the groups except the Health Professionals as a bond that deteriorated over time. The Army described the relationship as becoming two groups on one island over time. The Volunteers agreed that there was no relationship between the two communities and depicted it as an issue of the government. It was explained this way:

This is a big island. They are only 150 people. Their permanent homes could have been distributed in the host community. Then they will have host neighbours. Then they will have to talk and build relationships.

The NDMC described the situation as unfortunate as the rift started only after the

settlement. The reasons for the cause of the division was believed by the host families and the Health Professionals as differences in lifestyle. The women and their families were described as less hygienic than the host community in their daily activities of living. A host family member said:

They don't wash the rice clean enough. They don't even clean the pots before the next use. So, I cannot eat what they prepare.

Longer term phase

Except for the Army, all groups who helped the women in the longer term phase discussed their personal sense of connectedness. Most host family members stated that the two island communities were not able to bond as most women and their families did not get along with their host families.

They have an attitude where they don't like to participate and work together with others. Even to play soccer the two island communities have two separate fields.

The Health Professionals agreed with this perspective.

They see themselves differently. We hardly see them in the host side of the island. So, the host island people also don't talk and mingle with them. The thinking of both communities is vastly different. It is not a good decision to bring them here. And there is no work being done to improve the relationships.

The Volunteers also expanded on the differences between the two communities. They believed the women and their families contributed to the rift by voicing their concerns within their community and did not raise issues in island community meetings. However, some host families believed the relationships they had with the women and the families were not bad and it was their preference to have a segregated life.

Role of women

Tsunami phase

Only the family expressed their view on the role of women in this phase. A husband said there was no difference in the role. He further explained his views:

Men are better in organization. The men were taking the women to safety.

A few other husbands explained the caring role of women to assist people in need.

This was elaborated as:

It instances of disaster it is often norm to help your family. But the women helped and cared for anyone in need without giving priority to their own family.

Intermediate phase

Only the Family and Volunteers talked about the women's role in the intermediate phase. The Volunteers believed that there was no difference in the women's role. However husbands noticed the women playing a similar role as the men in a decision-making role about permanent migration.

Longer term phase

Only a Health Professional and a host family member discussed the women's role in the longer term phase, and they believed that there was no change in the women's role.

Attitude and behaviour of others

Tsunami phase

Only the Family expressed their views of the women's attitudes and behaviour in this phase of the disaster. A husband stated that women would feel the impact of the disaster more than men as the physical differences resulted in women panicking more than men. Another husband depicted this notion as:

Women are weaker than men. They cannot think like men. They are not as quick as men in thinking through. They may be educated and go out to work. But they lack the instant decision making and can only think through certain issues. So, women were more upset than men when the tsunami hit the island.

Immediate phase

The Family, Health Professionals and Volunteers stated their views of the women in the immediate phase. The Family reiterated the weakness of the women, with one husband stating that more women became ill than men after the tsunami. The Volunteers described the women as different from the host community, as helpless

people who had no homes and did not help in the host family home, which they were obliged to do.

Intermediate phase

The Family, Volunteers and officials from the NDMC expressed their attitude and behaviour towards the women in the intermediate phase. The Family and the Volunteers perceived that the women were not different. A husband stated that in this phase, when the rift started between the two communities the women were the target of abuse by the host community. An official from the NDMC agreed with this observation, explaining why the women and the families were harassed by the host community:

If an island is relocated each household receives a fifty thousand grant. When it was given the fire erupted in the host community. They harassment started.

The host families perceived the women to be a group who wanted to live in isolation. Yet, the host community had an expectation that in shared households the assistance provided by the government should be shared and if it is not shared there is segregation. The Volunteers' attitude towards the women was that they did not try to overcome the fear they experienced from the tsunami.

Longer term phase

Apart from the Army, all groups who assisted the women in the longer term phase commented on their attitude towards the women. A few husbands of the women said there was no change in the women and Health Professionals agreed. A host family felt the women were much happier in this phase because they were permanently housed, their living conditions much better than before.

A host family and an official from the NDMC believed that the women and their families were very different from the host community. The official said:

They are very slow to response type of group. Maybe their awareness is less. Even now they are not able to comprehend and match with the host community's intellectuals and they are not up to the level of host

community people. Their living lifestyle is also lower, it is not because they are of a lower socioeconomic status.

A host family noted that the relocation plan for the women and their families contributed to how they were seen differently by the host community. She explained that a plan to house them in the same areas as the host community was later changed to a separate area, which led to the two segregated communities living on one island. The view of an official from NDMC was that as the women from *Madifushi* chose to relocate just after the tsunami, they were left out of the awareness programs held throughout the country. He said had these programs been conducted for the *Madifushi* as well, it would have helped them to settle in a new community. A contrasting view was expressed by a Volunteer, who said the women and their families must have been strong and resilient to live on a host island, which is different even from their own atoll. Another Volunteer believed that by this phase the women and their families should have changed and adapted to the norms of the host community. She explained:

They have to change because they cannot live the way they were used to living. They have to see the norms of the host community and adapt to that.

Summary of Sequence 3 Analysis

The findings from Sequence 3 analysis outlines interview data from the groups that assisted the women rebuild their lives. The Families and Health Professionals discussed the factors that caused the women to lose their personal control in the tsunami phase, the exception being those women from *Gemendhoo*. The loss of personal control was because of helplessness and stresses of their frightening experience. On the island of *Gemendhoo* prayer was perceived to have helped the women regain their personal control. Apart from NDMC, all the groups highlighted the women's emotional response of crying in the immediate phase to help them cope and gradually return to normal lives. During this phase *Vilifushi* women expressed their hope of rebuilding their island. In the immediate phase most of the themes from all the groups were varied and the common theme that emerged was that all communities except *Gemendhoo* had future hopes of varying natures. The future hopes continued into the longer term but varied between the islands and the groups.

There was diverse understanding of the influences on the women's personal coherence amongst all the groups in all phases of the disaster. In the tsunami phase in *Gemendhoo* it was perceived that the women had no questions. In *Kadholhudhoo* the theme that emerged was how the women described the event. It was perceived that in *Vilifushi* the women had no questions and no thoughts were expressed, their only focus being safety. *Madifushii* women had questions on whether they had received a punishment from Allah. In the immediate phase it was common among women from three islands, the exception being *Madifushi*, to describe the event. It was perceived that women had no questions and if they had they would get the answers from the media. The influences on the women's personal coherence in the intermediate phase was varied amongst the respondents as well as the islands and no common theme was observed. In the longer term phase, the islands with dominant themes are *Kadholhudhoo* as a group who talked about future hopes, *Vilifushi* as group who complained about their unfulfilled needs and *Madifushi* women as a group who described the events of the disaster.

In the tsunami phase the women of all three islands except *Madifushi* gathered their families, whereas in *Madifushi* the island community gathered together as a whole. In the immediate phase there was bonding with the island communities and in *Gemendhoo* bonding with host communities started as well. In the immediate phase the bonds with the host community started deteriorating, and only unique bonds with specific hosts remained and continued to be stable. In the longer term phase, the bonds with the host communities deteriorated on all four islands. The role of the women in *Gemendhoo* and *Vilifushi* was illustrated in the tsunami phase as a demonstration of physical and emotional strength. In the immediate phase in most islands it was seen as no change in their roles except for *Gemendhoo* where the women were seen as using their physical strength. The roles of the women started changing in the intermediate phase. In *Vilifushi* the traditional role changed to an income generating role. This theme expanded to the longer term phase with an additional change to that of a leadership role.

The attitude and behaviour of the Family group towards the women in the Tsunami and immediate phase was evident on two islands. In the tsunami phase the women were perceived as weaker, and in the immediate phase the women of *Vilifushi* were perceived by the Army as angry and *Madifushi* women continued to be seen as weaker.

Gemendhoo women were seen to have had a spiritual response in the immediate phase, which continued into the longer term phase. All groups who assisted the *Kadhohudhoo* women regarded them with mixed attitudes in the two subsequent phases. The *Vilifushi* women were perceived by all groups who assisted as an angry, resentful and demanding group in both phases. The host families attitude was evident towards *Madifushi* women with the perceptions of them being isolated and segregated in the intermediate and longer term phase.

Chapter Summary

This chapter expanded on the findings of the interview data on the main concepts of the research objectives from others who assisted the women to rebuild their lives. It provided a wealth of information, highlighting that a considerable amount of perceptions of others contrasted with the women's stories. The women were seen as helpless and others believed that praying and crying helped them cope. Some others perceived that the women had future hope. In the tsunami phase others thought the women would have no questions and the women were perceived to be describing their stories. In the longer term phase of the disasters, others said that women were raising concerns of their unfulfilled needs. In the view of others, the women gathered their families in the tsunami phase and in the immediate phase it expanded on to the island community. Then the women build relationships with the host community, although the bonding deteriorated by the time of the longer term phase, according to others. There were contrasting views on the role of women amongst the other groups. The following chapter seeks to analyse the documents that were gathered and then continues to the final analysis of the pattern matching of all phases of the analysis.

Chapter Seven: Findings from Sequence 4 and Sequence 5 Analysis.

Introduction

This chapter describes the findings of Sequence 4 and Sequence 5 analysis. The first section focuses on the Sequence 4 analysis which is the documentary data enquiry. The words “tsunami” or “*boduraalhu*” were used as search terms to find related articles from the online newspaper “*Haveeru*”. The search period was from 26 December, 2004 to 26 December, 2008. The search resulted in 543 articles, from which 12 were excluded as they reported on other tsunamis that had occurred during the search period. The findings are presented in the timelines identified in the Sequence 1 analysis. The chapter begins with a summary of the newspaper articles published in the tsunami phase. This is followed by a discussion of the articles in the immediate phase, followed by newspaper articles from the intermediate phase and the longer term media articles.

The next section of the chapter focuses on the Sequence 5 analysis. The analysis is the final analysis where the findings from all four sequences were matched for cross-case patterns. The findings of the cross-case patterns are also presented under the timelines identified from Sequence 1 analysis.

Sequence 4 Analysis

The analysis of the newspaper articles included 14 articles related to the tsunami phase, 41 articles for the immediate phase, 336 articles for the intermediate phase and 140 articles for the longer term phase. The details of the articles by the timelines are shown in Figure 5.

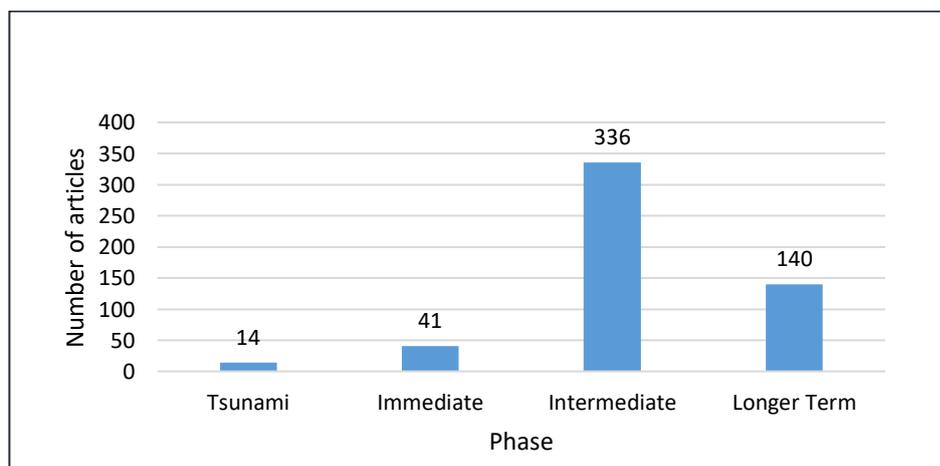


Figure 5. Number of newspaper articles by timelines.

Tsunami

For the tsunami phase, 6 articles were on the impact of the disaster and 18 articles were about the victims of the disaster. Table 5 details the themes of the analysis in the tsunami phase.

Table 5: Newspaper articles of tsunami phase

Themes	Subthemes	Number of articles
Impact		6
	Destruction	4
	Flooding	1
	Tourism	1
Victims		18
	Death	7
	Missing	3
	Survival stories	3
	Descriptions	2
	Injured	2
	Woman	1

The article on the woman was from a husband from *Meemu Atoll Maduhvari* island who talked to a journalist about how his wife was taken away. They had been on a nearby island having a picnic with the family when the tsunami came, and he detailed his story of how he tried to save his wife.

Further analysis of the articles in this phase showed there were articles written about three of the selected islands for the study. The articles on *Vilifushi* and *Kadhohudhoo* were written on the survivor's descriptions of the disaster. The article on *Gemendhoo* reported on the two deaths on the island. The article further stated the bodies were taken to the nearby island of *Kudahuvadho* and buried.

Immediate

The newspaper articles in the immediate phase had the main themes of impact, victims, recovery, assistance, safety, president, IDP's, tourism and tsunami fund. Even in this phase most articles were written about the impact of the disaster followed by the victims stories. The recovery efforts emerged in this phase along with details of the assistance provided. Table 6 has the details of the articles reported in the immediate phase.

Table 6: Newspaper articles of the immediate phase

Themes	Subthemes	Number of articles
Impact		22
	Loss	7
	Destruction, Flooding	5
	Communication	3
	Economic, Education	1
Victims		9
	Death	4
	Tourists	2
	Descriptions, Children, Injured	1
Recovery		7
	Government	3
	Volunteers, Relief Camp	2
Assistance		6
	Distribution, Donations, Finance	2
Safety		4
	Measures, Warning	2
President		3
IDP's		2
	Education, Support	1
Tourism		2
Tsunami fund		1

Further analysis of the victims theme resulted in an article under the subtheme of children. The article was a report of the statistics of the missing and deaths. The report concluded that most of the missing and deaths was children with 17% of those missing and 39% of deaths. There was also a descriptive article on the destructive impact on *Vilifushi*. The source of the article was an islander who had travelled from *Malé* to *Vilifushi*. According to the islander the island was totally destroyed, and due to the extent of the damage it was perceived that it would take months to clean-up the island.

Intermediate

There were 62 articles during the intermediate phase of the disaster that focused on the recovery efforts. The impact of the disaster was theme that emerged in this phase too, however the subthemes were mainly focused on the economic and environmental impacts followed by details of the impact assessments that were being carried out. The next main theme that articles reported on were details of the assistance being received with the main subtheme emerging in this category as financial assistance. Table 7 details the newspaper articles reported in this phase.

Table 7: Newspaper articles of intermediate phase

Themes	Subthemes	Number of articles
Recovery		62
	Rebuilding	19
	Relief efforts	12
	Migration, Reports	8
	Government	5
	Water	4
	Relief camps, Repair, Media reporting impact	2
Impact		56
	Economic	16
	Environment	10
	Assessments	9
	Awareness	6
	Tourism	4
	Education	3
	Destruction, Expatriate workers, loss	2
	Communication, Stealing	1
Assistance		53
	Finance	19
	Issues	7
	Agreements, Donations	5
	Building house, distribution, educational, repair	3
	Requests	2
Economy		26
IDPs		25
Housing		23
Other countries		22
President		20
Tourism		18
Victims		17
UN		10
Safety		13
Anniversary		7
Aid agency, Electricity		4
Clean-up, Visitors		3
Politics		2

Further analysis of the themes showed two articles under the subtheme of woman and children. The article about the woman was reported as a survival story of a woman, her mother and her six children. When she recollected the incident, she felt that their survival was a miracle. The article under the subtheme of children was a story of a surviving mother who lost her two children. It was reported that she still had nightmares of her lost children.

Six articles were written about *Vilifushi* during the intermediate phase. Three articles were written about the deaths of *Vilifushi* women. The first article in January, 2005,

stated that a female patient died from pneumonia. The other two articles were written about an elderly woman. The first article was reported in March, 2005, stating that she had been transferred from the Intensive Care Unit. The second article was on the news of her death in April, 2005. On 1 January, a report was written about the economic impact on the island of *Vilifushi*. The article focused on the loss of the fishing economy, the primary income earning activity for many men. The strain between the host island and the *Vilifushi* community was reported on 2 January, 2005. The source of the news was a Volunteer from the host island who observed that the host community was not assisting with food aid distribution and it was left near the jetty in the scorching sun. The last article was dated 10 January, 2005, that reported *Vilifushi* as one of the islands where the government decided not to restore electricity as it was so badly damaged.

Two articles reported on the island of *Kadholhudhoo*. The first stated that the President visited the island and the community had expressed a desire to migrate to another island. Two days later a second article reported the Planning Minister's announcement that the *Kadholhudhoo* community would be relocated permanently to another island, with temporary shelters built for the community on other islands in the atoll as an interim measure.

In this phase there were four articles about the island of *Madifushi*. On 9 January, 2005, it was reported that the *Katheeb* stated the community wanted to relocate to another island. Ten days later it was reported that *Madifushi* people started relocating to *Maamigili*. On 23 January, 2005, it was reported that 60 people had relocated. Three days later it was reported that the President had attended the foundation laying ceremony of the permanent shelters for *Madifushi* community in *Maamigili*.

Longer term

In the longer term phase, most articles were reported under the main theme of recovery with 22 articles published. However, in this phase most articles were reported under the subtheme of rebuilding. The next main themes were of housing (19 articles) followed by assistance (17 articles). The main sub theme under assistance was also finance. Table 8 shows the detailed themes of the newspaper article analysis.

Table 8: Newspaper articles of longer term phase

Themes	Subthemes	Number of articles
Recovery		22
	Rebuilding	9
	Reports	7
	Relief efforts	3
	Water, Repair, Volunteers	1
Housing		19
Assistance		17
	Finance	8
	Requests	3
	Agreements, Donations	2
	Building house, Repair	1
Other countries		11
IDPs		10
Housing		23
Economy, Tsunami fund		9
Impact, UN, Safety, Anniversary		8
Tourism		7
President, Aid Agency, Politics		4
Victim		3
Electricity, Clean-up		2
Projects		1

Further analysis of the articles showed that in this phase there was a report on *Madifushi*. It was a report about the tensions between the two communities, with the source named as the *Madifushi Katheeb*. It detailed the distress the community was facing in the host island and that they wanted to leave the island. It further stated that the host community denied the allegations from the *Madifushi* community.

Sequence 5 Analysis

The findings of the Sequence 5 analysis are detailed under the timelines of tsunami, immediate, intermediate and longer-term phases.

Tsunami: The panic

In the tsunami phase the women’s personal control was lost as they struggled to survive and when they saw their resources washed away. Whereas others who assisted the women perceived the women lost their personal control because they were helpless. The women coped by crying. The women regained their personal control by guiding the events in their lives and collecting reusable items. Whereas others who assisted them believed that the women regained their control by praying.

The women wanted answers in this phase while others said that they did not have any questions. The women tried to make sense of the disaster with thoughts of survival and missing children. In this phase the women described the stories of the disaster which the Health Professionals also reported, and description of stories were also evident in the document analysis.

The theme of women were joining together to rescue survivors is congruent with the perceptions of others who stated that the women searched for their families. Despite the views of some that the women panicked as they are a weaker gender, the women perceived themselves as withdrawn from the world. The women stated that there was no change in their roles while others perceived that they showed their physical and emotional strength. Most themes from the newspaper article review did not match the views of the women or the others who assisted them. The summary of the Sequence 5 analysis of the tsunami phase are illustrated in Figure 6.

Immediate: Seeking basic survival elements

In the immediate phase of the disaster the women's personal control was lost as they had to relocate. Most others who assisted them perceived the women lost their control as they were frightened and had lost their normal way of life. The women coped by crying, which was also the observation of most others. The women regained their personal control when they reunited with others. However, the Army who assisted the women said that in this phase the women started living normal lives and had hopes of going back to their islands.

Although people who assisted the women in this phase perceived they had no questions, this is contradicted by the women who said they had questions and explained how they got the answers. Although the women gave explanations about the disasters, others perceived it as describing the incident. The sense of personal connectedness for the women was bonding with the family whereas others saw them bonding with the island and host community. The women perceived their role as a leadership and rebuilding role. However, some others thought there was no change in the role while some others talked about the roles where women used their physical strength. There were no matching themes from the review of the newspaper articles. The summary of the immediate phase are illustrated in Figure 7.

Intermediate: Adapting to changed circumstances

In the intermediate phase the women lost their personal control because of the dispersal of their families and tension between them and host communities, whereas others perceived the reason as difficult living conditions. Although the women still coped by crying and regained their personal control by focusing on rebuilding efforts, others expressed the view that the women were living normal lives. The women stated that they had future hopes which was the perception of all other groups too.

In this phase the women described how they got the answers and their explanations were about the differences with the host community. The army personnel who assisted the women believed the women only talked about their concerns. On the other hand, the women stated they were bonding with their families and seeking to build relationships with the host community. This is somewhat contradicted by others who assisted the women; their perception is tension rising and the women were unable to bond with the host community. This theme was reported in documentation; the women stated there was negative behaviour of others towards them, while the view of the Army who assisted them was that the women were angry and dissatisfied. The women perceived that there was no change in their roles which was the same view as the Volunteers who assisted them. The summary of the intermediate phase are illustrated in Figure 8.

Longer term: Creating new life

The women stated they regained their personal control in the longer term phase by relating to their past, although the view of others was the aid they received assisted them to regain their personal control. The women had future hopes of living an independent life while others thought the women's future hope was permanent shelters. The women provided explanations about the host community, whereas the view of others was that the women talked about their unfulfilled needs and the hopes of the future helped them achieve a sense of personal coherence. In this phase, the women said, they bonded with close neighbours and sought host relationships, although others stated that the women were unable to bond with the host communities. The women said that they were labelled by others as tsunami victims. Although the women perceived that their role changed to an income generating role, others stated

the women played a leadership role in this phase. There were no matching themes from the document review. The longer term picture summary is illustrated in Figure 9.

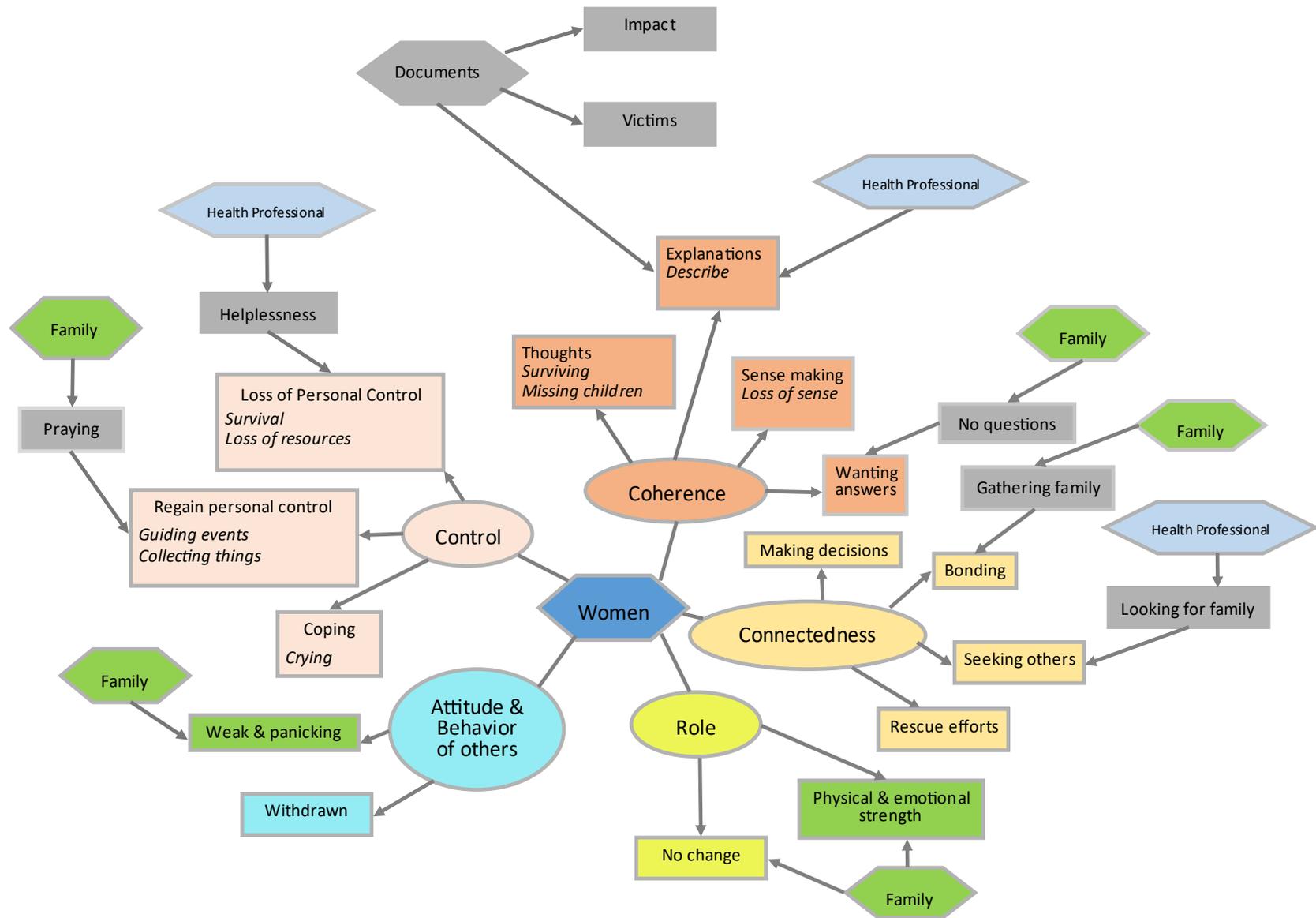


Figure 6. Sequence 5 analysis; Tsunami phase: The panic.

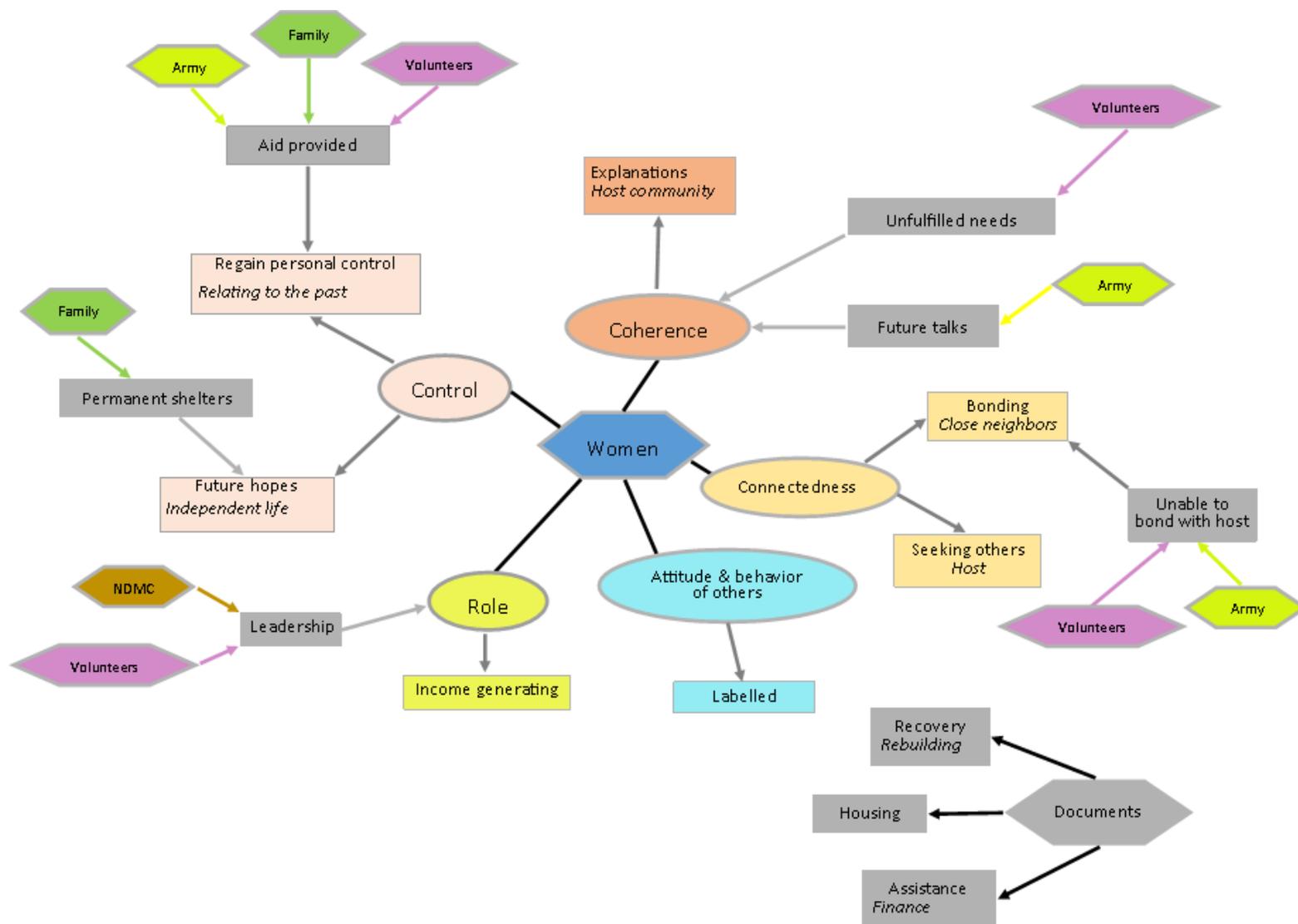


Figure 9. Sequence 5 analysis; Longer term phase: Creating new life.

Chapter Summary

This chapter is presented in two parts. The first is the summary of the findings from the document analysis. During the tsunami phase the media reported on the impact of the tsunami, and reported the stories of victims and survivors. In the immediate phase reports were about impact and recovery, which continued onto the intermediate phase. Most articles were reported in the intermediate phase. Articles reporting on the assistance provided emerged with a focus on issues of migration and relocation. The longer term phase articles were on recovery and housing issues.

The Sequence 5 analysis summarised the pattern matching of all the sequences of the analysis. The coding framework from the previous analytical sequences assisted the pattern matching to reduce the data, which provided a meaningful summary. The key informant group of women expressed their views on their experiences of the disaster in how they struggled to survive in the panic stage. They went onto express how they sought basic needs to survive, then adapt to changed circumstances and, finally, their hopes to create a new life. The informants from other groups who assisted the women in this journey often expressed different perceptions from what the women expressed. The next chapter is the concluding chapter. It provides recommendations for policy and practice at government and community levels to promote resiliency of women in disaster situations.

Chapter Eight: Discussion, Recommendations and Conclusions

Introduction

This concluding chapter brings together the research findings and literature review to support the proposition that factors that contributed to the experiences of Maldivian women explains their resiliency following the December 2004 tsunami disaster. The chapter begins with an overview of the research design. The response to the research objectives is then provided followed by a model of the outcome of the study. Finally, recommendations for policy, practice and future research, significance and limitations of the study are discussed.

Overview of the Research Design

This research utilised a qualitative approach of case study methodology to describe, analyse and explain the complex social phenomenon of the Maldivian women's experience of the December 2004 tsunami disaster. The epistemology of constructivism and the process of mimesis is used to understand the women's reality. Using Reich's (2006) three principles of resilience as the theoretical and conceptual framework, and a disciplined-configurative case study design the case of the experiences of a disaster by Maldivian women is elucidated. The study setting was four selected islands in the Maldives which were affected by the December 2004 tsunami where the population was externally displaced to another island. The methodological approach of the case study provided the opportunity to use multiple methods of data collection. In-depth interviews of the women, interviews with key informants of others who assisted the women and documentary data collection of newspaper articles satisfied the criteria for triangulation. Data that was gathered is a rich source of insight into the resiliency of women and the attitude of others towards them. The development of the study is guided by the emerging themes from field notes that was recorded as observations. The large amount of evidence that was collected is reduced to a meaningful structured case study story by analysing the women's interviews with framework analysis and content analysing interviews and newspaper articles. These findings represent an explanation of the factors that contributed to the experiences of Maldivian women following the December 2004 tsunami.

Objective 1. Factors That Enabled the Women to Achieve Sense of Personal Control in Rebuilding Their Lives

Provision of help to solve immediate problems formed a long-term dependency that undermines the women's natural sense of personal control.

The following observations support the above statement. Although people need to believe that they have control in their lives as suggested by Reich (2006), the study showed that various factors in different phases of the disaster contributed to the loss of control of the women. In the disaster phase when the women were struggling to survive, and others thought they were helpless, one of the main concerns raised by the women was the loss of their material resources that their entire lives were built on. They regained some of their personal control by collecting these items. As noted by Reich (2006) this may be because the women believed these personal resources would help them achieve their goals in rebuilding and starting up lives again.

In the subsequent immediate and intermediate phases, the women continued to feel a loss of personal control. In the immediate phase it was because they had to relocate, and in the intermediate phase the dispersal of their families continued and tension between the host communities and the women's communities emerged. The others who assisted perceived that in the immediate phase the women had a loss of personal control as they were frightened and scared, yet when they were adapting to changed circumstances, others assumed that the conditions the women were living in contributed to the loss of personal control. The women were disconcerted and continued to cope by crying. In this unsettled environment where women were struggling to create a new life, others who assisted them assumed that the women had regained their personal control and had bounced back to normality because of the assistance that was provided. Additionally, the factor of provided aid was a recurrent theme in the document analysis in all phases except the tsunami phase. As noted by Reich (2006) the current study showed that providing short term help in disasters was critical in finding immediate solutions and the provision of resources to rebuild were important. But as Reich (2006) states, that help created a state of dependency for the women, and others who assisted them undermined the women's natural sense of personal control and believed that the women had bounced back to normal when they were still struggling to rebuild their lives with future hopes of an independent life.

Objective 2. Influences on the Women's Sense of Personal Coherence

The women's drive for cognitive clarity was weakened by lack of enhanced meaning, direction and understanding.

The following comments support the above statement. In all phases of the disaster the women (Reich, 2006) were calling for explanations. In the disaster and the immediate phase, the women were describing the stories of the tsunami explaining what they had gone through. Others who assisted them and the newspapers told these stories as narrated by the women. These findings are congruent with Mutch and Marlow's (2013) view that in disaster contexts it is imperative to capture the stories of the victims as it enables them to make sense of the events for the affected communities. In the intermediate and longer-term phases, the significant impact on their lives was the host communities. In both these phases the women explained the differences and the hostility from the host communities.

The study showed that the women demonstrated a drive for coherence in all the phases of the disaster. Although they did not have any questions in the tsunami phase, they had questions in subsequent phases. In the immediate phase others perceived that the women had no questions while the women defined the questions they had. In the following phase the women further explained how they tried to get answers, but others said the women focused on stating their concerns. In the longer term phase the women's views showed that they had stopped explicating their need for cognitive clarity while others who assisted them said the women were focused on their unfulfilled needs and future hopes. These observations conclude that in the disaster recovery planning a goal of providing cognitive clarity to the women, which is important in providing coherence as identified by Reich (2006) was not evident. As noted by Reich (2006) the findings did not demonstrate effort by others who assisted the women to provide processes and procedures to reduce uncertainty by providing information, knowledge and understanding. There was no evidence of the provision of personal communications by others who assisted the women to reduce their uncertainty. The drive for coherence by the women, as suggested by Reich (2006) could have been provided through enhanced meaning, direction and understanding by others.

Objective 3. Strategies, the Women Used to Achieve a Sense of Personal Connectedness

Lack of informational and emotional support from the social relationships hindered the strategies the women to achieve a sense of personal connectedness.

The above statement is supported by the following observations. In disaster situations Reich (2006) a significant amount of stress is caused by breaking of stable bonds with others. In the rescue efforts during the tsunami phase and the subsequent immediate and intermediate phases, the women were gathering their immediate and extended families to ensure that already-established stable bonds were not broken. The others who assisted the women also observed the women gathering their families in the tsunami phase. These findings are compatible with Mutch and Marlowe's (2013) view who explain that in stable times communities are linked with networks of bonding and when a disaster occurs these links get broken.

In the immediate and intermediate phases, as suggested by Reich (2006) the women tried to establish bonds with strangers in the host communities. The findings showed that the women, as noted by Reich (2006), suffered significant anxiety when they could not build these relationships. However, the perception of others who assisted the women was different. They said that women bonded with the island community and host communities in the immediate phase but the bonding with the host community deteriorated in the immediate phase. In the longer-term phase, the women continued to seek others and there were a few who were able to build relationships with their close neighbours. This is similar to Mutch and Marlowe's (2013) perception that new communities emerge around specific shared experiences. But by this phase, others who assisted them concluded that the relationship with the host community had deteriorated to a level where it could not be re-established.

All types of relationships play a role in adverse situations according to Mutch and Marlowe (2013) in order to discover the human trait of resilience which is often full of creativity, hopes and humour. In Reich's (2006) opinion delivery of persuasive informational and emotional support is embedded in these social relationships. The women participants of the study were relocated to many islands and their families were dispersed after the tsunami. Most of them had to build new relationships. This study

revealed that the women did receive support through social relationships from the host community or others who assisted them to rebuild their lives.

In addition, Cheng and Mitomo (2018) stated that in disasters people who received information from media were more likely to exhibit more resilient features of shared identity and mutual support. In Cheng and Mitomo's (2018) view information through channels such as media help people to feel more empowered, which subsequently results in them being willing to interact and help others. In this current study there were mentions of continuous television and radio broadcasts in the initial week of the disaster but these were later discontinued. The findings of Romo-Murphy et al. (2011) showed the benefits of continuous radio broadcasting as a medium that contributes to information sharing and decision making process which strengthens the capacity of communities in forming a culture of resilience. The document analysis of media articles showed that emerging themes were about the description of events, impact, victims and recovery with a lack of articles on provision of information. In addition Romo-Murphy et al. (2011) stated continuous information sharing facilitates mental and physical preparedness, particularly when it is designed with participation of vulnerable communities. The cited literature demonstrates the benefits of continuous information sharing which was lacking in this study could have been the reason for the reduced interactions of the women and their inability to build relationships with others.

Objective 4. Attitude and Behaviours of Others to Women's Experiences

The women's observations of the attitude and behaviours of others to their experiences were different to the views of others who assisted them. In the tsunami phase the women saw others to be withdrawn, whereas others who assisted the women saw them as weak because they were panicking in fright, more than the males. In the immediate phase when the women were seeking basic survival elements the attitude of others were not noticed. In the intermediate phase the women observed the negative behaviours which was impacting on living peacefully in the host communities. In this phase the others perceived the women to be angry and resentful. The women stated that by the time they were settling into creating new lives either in permanent relocations or host communities they were being labelled as victims of the disaster.

Objective 5. Perception of Changes in the Women's Role During the Recovery Process

The women's perceptions of the changes in their role during the recovery process is different to the views of the others who assisted to them. During the tsunami phase when the women were struggling to survive, they perceived that there was no change in their roles. However, the others who assisted them noticed the women's physical and emotional strength. The women viewed themselves as playing a leadership role in making decisions when seeking basic survival elements in the immediate phase. This view is supported by Mutch and Marlowe (2013) who state that women often play significant roles in maintaining the social fabric of societies when there are physical collapses; they hold the families together and often work as part of the disaster recovery effort, and participate in community redevelopment.

In this phase and the subsequent phases others thought there was no change in traditional female roles. But women themselves saw a change in their traditional role. The women in this study are inhabitants of small islands where their typical role is looking after their family's home and children. The male role is predominantly that of earner income for the family. In the longer term phase, most women in this study were engaged in livelihood roles to earn income to make their lives better.

Experiences of Maldivian Women Post Disaster 2004 Tsunami

Reich (2006) stated that control and coherence is a fundamental element of connectedness in a disaster context. As discussed, the findings showed that after the disaster the women were not able to achieve a sense of personal control nor did they attain their drive for coherence. This could be one of the many reasons they were not able to achieve connectedness with the host families. When people are able to bond Reich (2006) they work together to get things done and get their goals achieved. The inability to bond with a host family could be the reason why the women's future goal of having an independent life was not achieved even by the time of the longer-term phase.

As suggested by Reich (2006) informal groups such as volunteer organisations or island development committees should be encouraged in these island communities to develop social networks which could maintain control and coherence that would help

maintain the connectedness in future disaster contexts. According to Reich (2006) this is a resilient resource easily available to expand people's aptitudes to provide supportive relationships to get through the difficult times. In this study the participants made no references to any such informal groups that provided the women with supportive relationships.

In addition, Reich (2006) noted a distinctive feature of resilient communities is the connectivity of formal and informal relationships of social capital. This feature of social capital was evident in one of the study islands. The island of *Vilifushi* was the only island where the island community relocated back to their own island. The findings of the study showed various references to the pressure of the informal leaders of the island to the government to rebuild their ravaged island. The project was awarded to the international voluntary organisation, the International Federation of Red Cross. The participants from this organisation highlighted how women used their husbands, who were informal leaders, to achieve what they wanted for their island in the rebuilding phase. The island of *Vilifushi* was the only island in the study where the women had a positive outlook in achieving their goals, demonstrating that a majority of the women in study were not able to achieve their goals as there was lack of social capital in their island communities.

Post Tsunami disasters and this study

Every year 26th of December brings a glaring reminiscence for many millions around the world especially for the participants of this study. The disaster that triggered from an earthquake which affected many countries sparked an unparalleled outpouring of aid. Sixteen years on we live in a different world. The tsunami changed the way governments, NGO's and scientists respond to disasters. Today technology offers relief workers many new innovative tools to work with. Back then local tsunami information came out in photos, fliers and list of missing persons plastered on walls. Since then so much has changed on disaster response. Social media applications offer instantaneous news for disaster communications. Mentality has shifted too. Many governments collaborate in communicating about disasters. Despite all this what has not changed is the occurrence of disasters.

An analysis of the 281 disaster events recorded in the Center for Research on the Epidemiology of Disasters (CRED) in 2018, showed that earthquakes and tsunamis accounted for the majority of the lives lost in disasters while extreme weather events accounted for most of the people affected by natural hazards (UNDRR, 2020). According to UNDRR (2020) in 2018 the loss of lives from natural disasters was 10,7333 compared with an annual average of 77,144 deaths recorded between 2000 to 2017. This inflation of average yearly numbers were inferred to the large scale loss of life in catastrophic events such Indian Ocean Tsunami (2004), Cyclone Nargis (2008) and Haitian earthquake (2010). UNDRR (2020) states that the loss of lives from major natural disasters is on the decline possibly to due to the improving standards of living and better disaster risk management strategies. Table 9 illustrates the major natural disasters from 2000 to 2018 demonstrating that it continues to occur.

Year	Death Toll	Major Events (5000+ Deaths)
2000	9,609	
2001	30,844	Gujrat Earthquake
2002	12,124	
2003	109,827	Bam Earthquake, European Heatwave
2004	242,765	Indian Ocean Earthquake
2005	88,673	Kashmir Earthquake
2006	24,239	Java Earthquake
2007	16,960	
2008	235,256	Cyclone Nargis, Sichuan Earthquake
2010	297,140	Haiti Earthquake, Russian Heatwave, Somali Drought
2011	51,434	Japan Earthquake
2012	10,319	
2013	21,859	North Indian Floods, Typhoon Haiyan
2014	7,993	
2015	22,774	Nepal Earthquake
2016	8,512	
2017	9,734	
2018	10,733	

Table 9: Total death tolls from natural disasters 2000 - 2018 (UNDRR, 2020)

The latest publication on disaster epidemiology from Centre for Research on the Epidemiology of Disasters (CRED) was for year 2018 (CRED, 2019). In this report it was noted that over 68 million people were affected worldwide with Indonesia recording approximately half of the total deaths while India recorded the highest number of people affected. Figure 11 is an illustration of the disasters in 2018 and a summary of the impact.

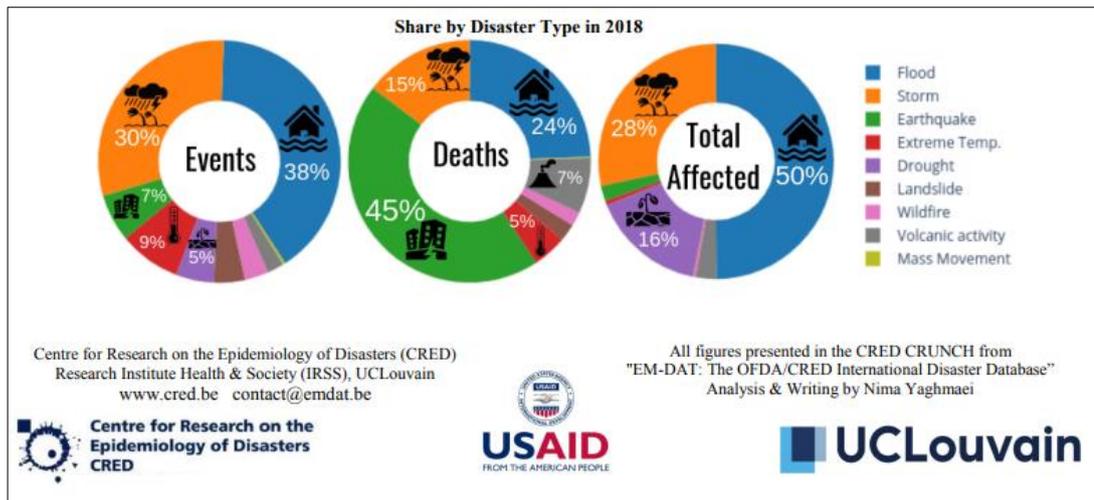


Figure 10: Disasters in 2018 (CRED, 2019).

The CRED (2019) shows that majority of the disasters that occurred in 2018 are natural disasters. The gendered impact on disasters is a concept that is being explored and Neumayer and Plumper (2007) established that natural disasters do not affect people equally. They made the first systematic analysis in exploring the gendered mortalities in varieties of settings in a sample of 141 countries. The analysis showed that life expectancy of women were more adverse compared to men in natural disasters and the largest contributing factor is the socioeconomic status of the women (Neumayer & Plumper, 2007). Such an analysis in Akerkar & Fordham's (2017) view may lead countries where gender equality has been embedded in the legal framework to assume that men and women should experience disaster experiences in a similar way. They then explored two flood affected locations in United Kingdom and established that gendered experiences of disasters can be equal but different for the affected men and women.

More recently Women's Environment & Development Organisation (WEDO) (2020) reviewed the existing literature on climate change and gender in the United States with an interpretation of gender in the socially constructed context of being male and female. The review highlighted that gender has a significant impact on experiences related to events related to climate change such as natural disasters in the United States as well as the whole world. Everyone is affected by climate change, but men and women are disproportionately vulnerable to specific impacts and related mitigation activities. It was highlighted that a year after Hurricane Katrina approximately 1 in 4 women of New Orleans reported a disability. Posttraumatic stress disorder following

Hurricane Katrina was an aspect that was explored by many which showed that elevated levels were reported amongst women and especially in the vulnerable group of Black women. After Hurricane Katrina many academics documented that there was a significant increase in gender-based violence which unduly affects women. The review also found that men are better prepared to deal with natural disasters but noted that there is evidence that after these events women struggle for longer. With these significant challenges to women the report highlighted that women are more concerned about the effects of climate change and they are more likely to support mitigation activities, but women are significantly underrepresented in environmental leadership positions. It was noted that research highlighted that gender and climate change are linked but much more is required to be understood to formulate gender responsive policies (WEDO, 2020).

A model for building resilient communities

The experiences of the Maldivian women following the 2004 tsunami is illustrated in Figure 10 as a model for building resilient communities in disaster contexts. The purpose of such a model is to highlight the fundamental elements required to build a resilient community, thereby providing a framework for governments and organisations seeking to promote disaster resiliency. Based primarily upon the feedback from the research participants the model also reflects the conceptual framework of the study Reich's (2006) three psychological principles of resilience in natural disasters. The model was developed through the coding processes from all phases of the analysis. While the conceptual framework was used for its complementarity, the experiences of the Maldivian women showed that a range of elements are understood to shape resilience, and these are illustrated in the model.

The model for resilient communities highlights that control and coherence as fundamental elements that help to achieve personal connectedness to bounce back from disasters. As shown in Figure 10 the disasters victims drive for cognitive clarity is a fundamental element which can be enhanced by implementing strategies to improve meaning, direction and understanding. Personal control is another essential element for resiliency. In disasters help is provided to solve the immediate problems which often is seen as an important factor for rebuilding. However, this may cause a

sense of dependency which undermines the natural sense of personal control. Therefore, it is critical to maintain a sustainable process of assessing the need for assistance during all stages of a disaster. These two elements together create a sense of personal connectedness for people to bond, work together to get things done and achieve their goals of rebuilding. The constant factor that supports this process in the event of a disaster is social relationships. The development and sustainability of social relationships in communities is the vital element to build resilient communities. Leadership in communities is the capacity to mobilise and motivate others, NGO's and governments to build and sustain social relationships. The social relationships build resilient communities through connectivity of formal and informal relationships.

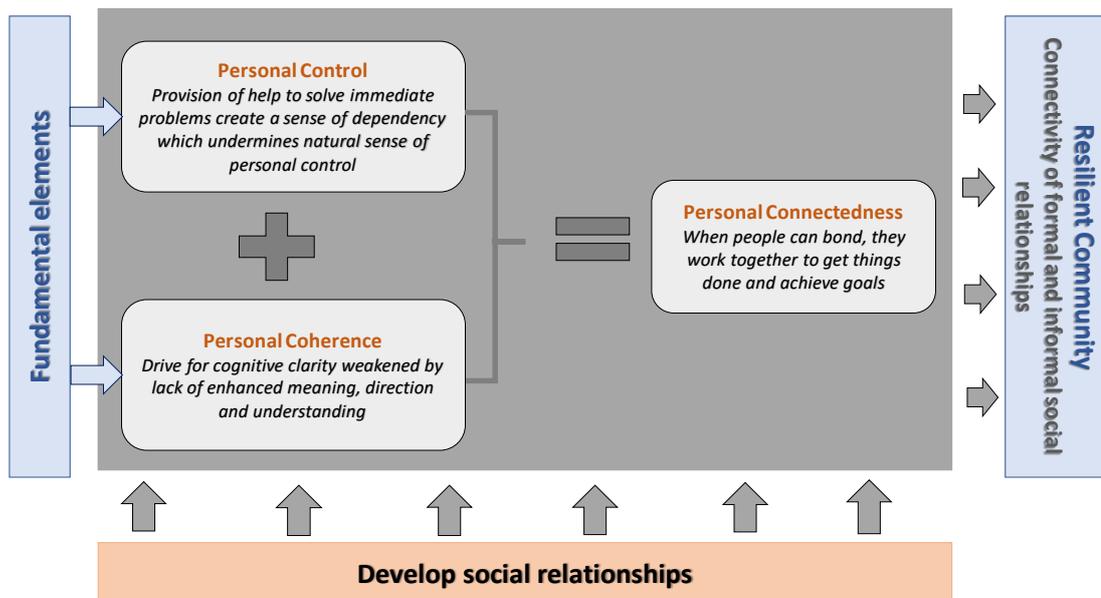


Figure 11. Model for resilient communities in disaster contexts.

Recommendations from the Study

The findings from this research study demonstrates that a variety of strategies can be utilised to promote women's resilience in disaster contexts. The study has revealed that these strategies are implications for both government and community organisations. This section proposes key recommendations in this regard for an array of relevant stakeholders. Some suggestions may seem to be relevant only in small island communities, however as disasters are everyday occurrences in the daily lives of others, these recommendations can be contextualised to other scenarios.

Recommendations for community organisations

A noticeable finding of the study is the importance of informal groups in communities in the event of disasters. The creation of informal groups through community organisations is encouraged. It is advised that community organisations through their core activities build coordinated, comprehensive and sustainable networks in the communities. These community organisations should be subject to regular review and evaluation, thereby enabling the maintenance of these networks as a resilience resource.

In doing so, it is recommended that community organisations:

- Establish participation in state disaster relief activities as an organisational core business.

Discussion in the thesis highlights the lack of a role for community organisations in the island communities in the event of disasters. The other groups who emerged in the event of the disaster to help the women were personnel who were assigned the task because of their existing roles. These job roles were from government and non-government corporations. If local community organisations are prepared and skilled to handle disaster relief activities it will create an opportunity for them to be involved from the beginning to ensure that the communities are resilient to recover from the disaster.

- Embed the building and maintenance of informal and formal networks into organisational culture and evaluate their effectiveness.

The research highlighted the varying levels of informal and formal existing networks in the communities. The ineffectiveness or lack of these existing networks showed that the women were not able to maintain relationships when they were relocated into unfamiliar communities. In cases where there was evidence of an existing network of informal support the women were able to achieve what they wanted for their future demonstrating that they were in control of rebuilding their lives. Therefore, it is recommended that despite the purpose of the community organisations, building and sustaining these informal and formal networks are embedded as a part of the core business. This strategy will enable a resilient resource to be developed over the years,

making the fundamental elements of control and coherence to be effective in the event of disasters.

- Identify opportunities to provide a voice for the women.

The study suggests that most women were not able to voice their needs and concerns in the post disaster period. The views of other groups who helped the women were different to their perceptions, wants and needs. Most of the time the women's voice was not heard. If the women wanted their voice to be heard they used others means such as their male partners to raise their wishes. It is recommended that community organisations create platforms for the women to be heard. If such an environment is created, it gives the women the empowerment to ensure that their voices are heard during disaster contexts.

Recommendations for policy and practice

This study acknowledges that 15 years on from the tsunami disaster the Maldivian government has made immense progress in formulating policies and regulations on disaster management with a focus on disaster risk reduction and preparedness. The framework for the policies has been legitimatised with a Disaster Management Act and establishment of the NDMA. It is five years since the task of developing a NEOP has been commenced. However, this study has found that a holistic integrated approach to managing the tsunami disaster was required to build the resiliency of the affected. This research has identified several recommendations for policy and practice which certainly commend the NEOP. It is recommended to:

- Develop strategies for communication to address the drive for clarity and coherence.

This research has highlighted how the affected people of disasters have questions and they want answers. In all stages of the disaster this drive for cognitive clarity is evident. Fifteen years on from the tsunami, the methods of asking questions and providing information has evolved. People are asking questions that they want answers on social media platforms such as Twitter. More and more organisations and authorities use these platforms to disseminate information instantaneously to larger audiences. Newspaper is also using these platforms to report news. In this changed environment

it is essential for policy development to include strategies for communication that address the need for cognitive clarity. The questions of the affected people should be given opportunities to be expressed and monitored to ensure that they are answered. The Disaster Mitigation (DMP) study by (Romo-Murphy et al., 2011) in Banda Aceh after the 2004 tsunami disaster supports this notion of importance of community and social networks during disaster situations when the usual communication methods are down.

- Develop integrated coordinated response efforts in providing help for the immediate needs with long term plans for self-sufficiency.

The findings from this study highlighted how others who assisted the women believed that if material resources are provided, they will be satisfied and return to normality. The stories of the women accentuated that this strategy created a long term dependency on government supported assistance. The officials from the disaster management centre expressed their frustrations about the situation but did not see that the policy level decision of aid and assistance was the cause of the issue. It is recommended that in formulating disaster preparedness plans that an integrated approach is developed where assistance is provided for immediate needs with plans in place for affected individuals and communities to get engaged in activities and encouraged to be self-reliant as soon as possible.

- Engage with local authorities and community organisations to build communities of formal and informal relationships of social capital.

The findings showed that formal and informal relationships in the population of a sample island of the study was an important social capital mechanism that contributed to achieving the goals of the women from this island who wanted to rebuild their island and move back. They achieved that through the existing social capital within their community. It is recommended that this concept is introduced into the small islands by engaging with local island authorities and community organisations to build formal and informal relationships and sustain it.

- Develop and maintain supportive networks that can assist the development of livelihood activities of women in small communities.

Prior to the disaster, most women had a traditional role where they stayed at home and looked after the children. The males in the household earned income to look after the families. This study highlighted the changed role of the women after the disaster, in which women took up more livelihood activities and began saving for the future hope of independent lives in permanent shelters. It is recommended to formulate policies to develop and maintain supportive networks through public and private partnerships to develop skills livelihood activities for women.

- Include strategies to develop the leadership role of women in community preparedness activities.

This research found that the role of the women changed after the disaster and most women took up some form of leadership role within their families or within the community. The women viewed themselves as playing a leadership role in making decisions when seeking basic survival elements and later during the rebuilding phases. Acknowledging the fact that after the tsunami one of the key strategies in disaster management policy is community preparedness, it is recommended the leadership role of women be developed through these activities, so they will be better prepared in the future.

Recommendations for future research

The views of the women and others who assisted in rebuilding their lives after the 2004 tsunami have been captured and compared in this study using a conceptual framework of resilience, thereby giving a greater insight into the experiences of Maldivian women in a disaster. However further research in this area is still necessary. Some recommendations include

- Greater exploration of the experiences of women in disasters specifically looking at the coping strategies of the resilience process that are employed.
- Exploration of the role of social media in expressing the drive for clarity and as a personal communication tool in disasters.
- Pilot test and further refine the model of resilient communities in disaster contexts for veracity within a disaster situation.
- Undertake social capital research that explores how the role of formal and informal relationships in disasters promotes resiliency.

- Research the leadership role of women in disasters. This could provide insight into how the role of women affects the resiliency of the affected communities.
- Exploration of the impact of socioecological resilience and environmental justice on environmental refugees of natural disasters.
- Research on life-worlds of the women, focusing on their everyday lives and exploring the interconnections between these experiences and resilience relevant to public health. This could give a voice to their sense of loss, pain, social suffering, and ethical loneliness in relation to multiple others in their lives as well as struggle with institutional encumbrances in seeking support.
- Exploration of the contexts of the lived realities of women in disasters as individual stories. This could provide a grounded, nuanced, and critical understanding of not just resilience, but also key concepts such as coping and surviving.

Personal Reflection of the Research Experience

Given my familiarity with resilience of humans in significant events, and as the author of this thesis and researcher of the study, it has been a privilege to be a part of the incredible of the journey of the women who suffered the December 2004 tsunami. As I reflect at the end of this study and experience, it is gratifying to learn that the majority of the women participants have re-established independent lives and are stronger and more resilient. They have a voice in the community. It is most humbling to recognise that the experience has taught me a great deal.

Qualitative research, specifically the process of analysis involves constant reflexivity. Through embarking on this educational journey at the doctoral academic level, not only have I gained a good understanding about qualitative research and the methods involved, but also I gained a greater appreciation of the lengths that women go through to keep their families together. The aspiration to ensure the final model and recommendations generated is not only my interpretation of the data; but seeking feedback on the emerging themes and findings was a critical part of the research process. I was encouraged by the discussions this research generated with friends and colleagues from the Maldives. To my fellow associates in Maldives, despite the daily challenges, you have demonstrated that you are capable of achieving greater things in

influencing and leading future direction in disaster management. Engaging those holding influential positions is an ongoing journey and I appreciate that navigating a pathway to implement the recommendations from this study will require a significant commitment by all concerned. However, I sincerely believe that with a united approach, positive changes can be made, and Maldives will be better prepared for disasters.

Significance of the Study

This study is among the first of its kind conducted by a female researcher to understand the experiences and resilience of women in disasters within their own cultural context. Additionally, although several studies have acknowledged resilience within a disaster context, this research is the first to exclusively focus on understanding the resiliency of women in such circumstances in small island communities. As such it adds to the emerging body of knowledge on disaster resiliency. The findings and the development of a model for resilient communities in disaster contexts provide a means with which to compare and guide future research.

The findings of the study are significant for the post tsunami surviving women, community organisations and for those in disaster policy level decision-making roles in the government.

For the women participants living in small islands of Maldives this study is significant as it:

1. has given them a voice to express their views and feelings in rebuilding their lives
2. is an acknowledgment of their resilience and a statement of admiration of their efforts in keeping their families together in the hope of achieving an independent future.

For the community organisations, the study is important on the grounds that they:

3. recognise the challenges and support needs of women in disastrous situations and provide a voice for them
4. Acknowledge the importance of informal groups in building networks in small communities to promote resilience strategies

5. provide advice on how to build formal and informal networks through the organisations as a social capital resource for resilience.

The significance of the study for the policy makers is that it:

6. identifies disaster level responses from an island nation perspective that policy and practice coordination are often ineffective. In doing so, the research highlights potential strategies for coordination response of immediate needs of the victims with long term plans for self-sufficiency
7. acknowledges the drive for clarity and coherence in disaster situations and recognises the importance of communication strategy inclusions in disaster management plans
8. recognises the development of a leadership role for women to be used as a resilience resource in disasters.

Finally, the adoption of the model for resilient communities recommended in this thesis in the national emergency and operational plan may result in improved disaster management outcomes for the future. This may not benefit only the Disaster Management Authority but also the communities they exist to serve.

Limitations

The methodological approach of the study resulted in number of limitations. These are acknowledged below.

Generalisability

The main participant group of the study were women from small islands in Maldives. The study islands have small populations of around 150 to 1,500 people who live in communal settings. The influences from the outside world are minimal in these island communities. Therefore, conclusions from the study may have limited applications for other groups of women who live in different communities.

Data collection and analysis issues

The study was proposed in the setting of Maldives with a homogenous population with a common language and religion with the assumption that the study islands will present similar responses to the disaster enabling efficient data saturation. However, when the data collection commenced, it was soon realised that each of the small islands

responded to the disaster quite differently, depending on the support that existed in the communities. Therefore, data had to be collected in each island until saturation was reached. The other limitation encountered was that in these small islands there were strong personalities who dominated group conversations, making it difficult to conduct focus groups. These limitations in data collection resulted in more than 100 interviews making the data analysis phase of the study challenging.

Scope

In terms of scope, the data collection from others who assisted the women rebuild their lives was gathered in interviews with personnel from NDMC and most Volunteers who were not on specific study islands. The information provided was related to a general context, hence there were limitations in capturing the data specific to the study islands. Accessing the Army group, the first responders, was also difficult as they were not stationed in specific islands but had travelled from throughout the Maldives. There was a limitation in obtaining the information from Army personnel specific to the selected islands for the study.

Memory distortion from traumatic events

The main participants of this study are women who have experienced the trauma of the disaster of December 2004, Tsunami. The field work of data collection was conducted 4 years after the disaster in early January 2009. It is stated by Strange and Takarangi (2015) that trauma memories are like all memories that are supple and prone to distortion. However, they state that after a traumatic experience ‘effortful retrieval’ of intentional remembering and ‘intrusive mental imagery’ of unintentional remembering can introduce new details which over time incorporate into a person’s memory for the event. Even though there is growing body of knowledge in psychiatry on the importance of understanding the role these factors play in distorting people’s memories for traumatic experiences, it is a methodological limitation of this study that this concept was not scoped in the analysing stage of the study.

Using a prior theory as a theoretical framework.

The role of a theoretical framework or a theory prior to collection of data is a major and essential difference of case study method and other related qualitative methods. The prior theory is used as a theoretical framework to guide representation of the

relationship between the variables of the study phenomenon of the Maldivian women's experience of the tsunami. In addition, the concept of resilience was also used as a conceptual framework to guide and provide directions for data collection and analysis. Reich's (2006) three principles of resilience was the prior theory that provided the framework for data analysis and the structure for presenting the findings. Using a prior theory as a conceptual framework is a methodological limitation of the study as

- as it enervated the constructivist epistemology of the research method.
- the narratives of the participants struggle to cope and survive the disaster had to be pruned and analysed along Reich's (2006) three principles of resilience. This resulted in presentation of the narratives that did not adequately reflect the emic view of the participants fight to survive.
- constrained the exploration of other relevant and important factors for resiliency in disasters other than the principles in the selected theory.

Conclusion

This present study explored the Maldivian women's experiences of the disaster of the December 2004 tsunami using a conceptual framework of resilience, acknowledging the fact that limited empirical evidence is available for women's resiliency in disasters. This study attempted to identify the factors that enabled the women to achieve a sense of personal control. It also investigated the influences on the women's sense of personal coherence and the strategies the women used to achieve a sense of personal connectedness. The research has provided important new data from these perspectives and has also explored the attitude and behaviour of others towards the women and the perceptions of changes of their role.

A review of the literature on disasters, specifically on natural disasters with exploration of resilience in disaster context added depth and rigour to the research process. Synthesis of information from multiple sources of data added evidence to the research methodology. According to (Reich, 2006) principles of control and coherence are fundamental elements of attaining connectedness in disaster contexts. The study findings showed that the provision of help for immediate needs continued with the provision of basic needs of food and shelter, which was assumed as a means for the women to regain their personal control whereas in fact it undermined their personal control as it was creating a state of dependency. This study highlighted a lack of

enhanced meaning, direction and understanding by others weakened the women's call for explanations and the drive for coherence. The lack of adequate information to meet the women's drive for cognitive clarity, coupled with a lack of support from social relationships, hindered the strategies that could help the women achieve a sense of personal connectedness. Along with these observations the study showed that the women's reflections of the attitude and behaviours of others to their experiences were different to the views of others who assisted them.

This research showed that women were not able to achieve a sense of personal control nor attain their drive for coherence, resulting in them not being able to achieve a sense of connectedness with others. The study findings accentuated that social capital was an important factor to maintain the women's connections with others in post disaster rebuilding. Thus, the final chapter proposed a context-specific model for resilient communities and elucidated recommendations for community organisations and governments in policy and practice. The recommendations and the model proposed will be shared with the Maldivian government and community organisations. It is hoped that these will be incorporated in the call for policy changes to disaster management plans.

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Appendices

Appendix A: Interview Protocol

A1.0 Generic Interview Guide for Women

Introduction

- Thank participant for their commitment to be interviewed
- Introduce self
- Review interview purpose, confidentiality, audio recording
- Confirm time necessary (1- 1.5 hours) and minimisation of distraction

Clarification and collection demographic information

Explain and obtain consent

Setting the scene

- Tell me what the tsunami did to your life?

Person control strategies in rebuilding

- Can you describe the process and the role you played in rebuilding your life after the tsunami?
- In the process have you felt that you could have your own goals, be able to make your own decisions and guide the events in your life?
- Have you received any help in rebuilding?
- What do you feel about the help you received?
- In the process did you feel that you had control of using these resources in rebuilding
- Have you felt the same experience in the past when dealing with major life events?

Influences on sense of personal coherence

- Did you have any questions that you wanted answers like where is my family? Is my home ok?
- Can you tell me the answers you got for these questions and how you got them?
- Did the answers make sense?
- Did the answers have a meaning or direction?
- Can you tell me your thoughts about your future?

- Did you ever feel that your future was uncertain and there was no order or structure in life?

Strategies used to achieve a sense of personal connectedness

- After the tsunami can you tell me how the island community worked?
- Can you tell me whether there was any bonding within the island community?
- Can you tell me the life living with a host community?
- Where their efforts from the community to achieve your goals in rebuilding?

Attitude and behaviour of others

- Can you tell the in the last 4 years after the tsunami, the attitude and behaviour of others towards you?
- What do you think of the attitude and behaviours that you have described?

Role of women

- Can you describe me your role after the tsunami?
- Do you think that it has changed?

A2.0 Generic Interview Guide for Other Participants

Introduction

- Thank participant for their commitment to be interviewed
- Introduce self
- Review interview purpose, confidentiality, audio recording
- Confirm time necessary (1- 1.5 hours) and minimisation of distraction

Explain and obtain consent

Setting the scene

- You have played a role in the recovery process after the tsunami. Can you tell me your role and where you have travelled?

Women's strategies to achieve personal control in rebuilding

- Can you tell me what the tsunami has done to the life of the women?
- What was the role that the women had in rebuilding their roles?
- Where the women able to have their own goals, make their own decisions and guide the events in their lives?
- Where the women any personal resources to achieve their goals?
- Can you tell me the help the women received in rebuilding their lives?

- Can you explain how the women felt about the help they received?
- Did the women have control in using their resources in rebuilding their lives?

Influences of women's sense of personal coherence

- Did the women have any questions? If they had can you tell me what these questions were?
- Can you tell me how the women got the answers for those questions?
- If the women got answers, did it have any meaning or give a direction for the women?
- Can you tell me if there was any order or structure in the women's lives after the tsunami?

Strategies to achieve a sense of personal connectedness

- After the tsunami can you tell me how the island community was working. Did they band together?
- Can you describe me the relationship that the women had with their families?
- Can you describe me the relationship the women had with the host community?
- Can you describe me the relationship the women had with aid organisations and people who visited to help them?
- Can you tell me the efforts of the community to help the women achieve their goals?

Attitude and behaviour of others

- Can you tell me the attitude of the women?
- Can you describe me the behaviour of the women?
- How would you describe the attitude and behaviour of others towards the women?

Role of women

- Can you tell me the role of the women compared to their role before the tsunami?
- Has their role changed? Can you describe?

Appendix B: Information for Participants

B1.0 Information letter to participants

“Women of the Maldives Post Tsunami 2004–2008; a case study”

You are invited to participate in a study designed to synthesize a cohesive explanation of the experiences of the Maldivian women of the post December 2004 Tsunami. The overall aim of conducting this research is to develop an understanding of the factors that contribute to women’s experiences following a disaster.

This study is part of the requirements for the completion of Doctor of Philosophy in Public Health which I (Mariyam Athifa) am studying through Curtin University of Technology. My supervisor is Dr Janice Lewis from Curtin University of Technology. And the associate supervisor is Dr Aishath Shiham of G Kudhiruvaalige, Male’, Maldives. The study has been approved by the Curtin University Human Research Ethics Committee and Ministry of Planning and National Development, Male’, Maldives.

Your esteemed opinions will be sought regarding the experiences of Maldivian women of post December 2004 Tsunami. You’re views on how women achieve a sense of personal control, coherence and connectedness will be of immense value for this research.

During the study period you have no obligation for anything and have the right to discontinue your participation without any identified reason and without any prejudice or negative consequences. This study involves in-depth interviewing of approximately 20–30 minutes or focus groups of approximately one hour in English or Dhivehi. The interviews or the focus groups will be tape recorded with your permission. Any information provided will not be disclosed to any other person. My supervisors and I will have the sole access to this information. The information will be reported in general terms and no references will be made to the identity of any participant.

Recorded tapes will be kept in locked cupboards which are only accessible to the researcher and the supervisors and will be destroyed after transcription. All electronic

data will be stored with proper safety measures up to a mandated period of five years at Curtin University of Technology.

If you are interested to participate in this study, please complete and sign the attached consent form.

If you need further information please feel free to contact either me, my supervisors or the Human Resource Ethics Committee (HREC) of Curtin University on one of the following addresses.

INVESTIGATOR

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Sincerely yours

Mariyam Athifa

B2.0 Consent form to participants

“Women of the Maldives Post Tsunami 2004–2008; case study”

I have received information about the study “Women of the Maldives post Tsunami 2004–2008: a case study” to be conducted by Mariyam Athifa from Curtin University of Technology. I have been informed of and understand the purposes of the study. I also have been given an opportunity to ask any questions.

I have been informed that the participation in the study is voluntary and understand that I can withdraw at any time without prejudice. I also have been informed that any information which might potentially identify me will not be used in published material. Iagree freely to participate in the study as outlined to me.

Respondents signature

Date

Interviewers signature

Date

Appendix C: Demographics of Women Participants

Island	Age	Marital Status	No of children	Educational Level	Host Families lived with	Economic Activity
Kadholhudhoo	79	Married	4	Basic	2	Nil
	25	Divorced	0	Year 10	4	Nil
	30	Married	3	Year 6	1	Nil
	45	Married	3	Year 5	2	Nil
	35	Married	3	Year 7	3	Nil
	58	Married	9	Basic	1	Nil
Gemendhoo	43	Married	4	Basic	2	Thatch weaving
	25	Married	1	Year 5	3	Nil
	30	Married	3	Year 7	2	Thatch weaving
	44	Married	6	Basic	3	Thatch weaving
	39	Married	4	Basic	3	Dress maker
	31	Married	3	Year 5	2	Thatch Weaving
Madifushi	52	Widowed	7	Basic	5	Cleaner
	47	Married	4	Basic	3	Thatch weaving
	45	Married	4	Year 7	2	Public servant
	52	Married	9	Basic	2	Cleaner
	54	Married	9	Basic	3	Thatch weaving
	35	Married	3	Year 7	2	Teacher

Appendices

Island	Age	Marital Status	No of children	Educational Level	Host Families lived with	Economic Activity
Vilifushi	46	Married	4	Year 7	3	Coir rope making
	40	Married	4	Year 7	4	Nil
	45	Widowed	6	Year 7	3	Nil
	50	Married	10	Year 7	4	Thatch weaving
	32	Married	2	Year 6	2	Thatch weaving

Appendix D: Arrangement of Counselling Services



Youth Centre

Ministry of Youth and Sports
Male', Maldives



Ref. No.: 141 - YA/MIS/2008/101

Miss Linda Teasdale
Manager Research Ethics
Office of Research and Development
Curtin University of Technology

Dear Ms Teasdale

I wish to confirm that Ms Mariyam Athifa has contacted the counseling services offered by Youth Counselling Service. It has been approved by this organization that the participants of the project titled "Women of the Maldives Post Tsunami 2004-2008: A case study" which Ms Athifa is a researcher will be provided counseling services free of charge. Also arrangements have been made that these participants will have immediate access to these services.

If you require further information please do not hesitate to contact myself on phone no: 009607776679 or e-mail youthcounsellingservice@hotmail.com

Yours sincerely

[Redacted signature]

Aminath Lugma
Assistant Director



Appendix E: Archival Database

Island	Women	Family		Health	Volunteer	Army	NDMC
		Husband	Host	Professional			
Gemendhoo	ID 36 ID 37 ID 39 ID 40 ID 49	ID 45 A ID 45 B ID 46 (FG)	ID 38 ID 41 ID 42 ID 43	ID 47 ID 48 ID 50 ID 53 ID 54	ID 51 ID 52	ID 1 ID 9 ID 10 ID 13	
Kadholhudhoo	ID 71 ID 72 ID 73 ID 74 ID 75 ID 76	ID 77 ID 78 ID 79 ID 80 ID 82	ID 83 ID 84 ID 87 ID 89 ID 90	ID 81 ID 85 ID 86 ID 88 ID 91 ID 92 ID 93 ID 94		ID 105	
Vilifushi	ID 7 (FG) ID 55 ID 56 ID 57 ID 58	ID 60 (FG) ID 61 ID 62 ID 106	ID 66 ID 67 ID 68 ID 69 ID 70	ID 63 ID 64 ID 65 ID 103 ID 104	ID 4 ID 6	ID 2 ID 3 ID 5 ID 8 ID 11	

Appendices

Island	Women	Family		Health	Volunteer	Army	NDMC
		Husband	Host	Professional			
	ID 58						
Madifushi	ID 14 ID 15 ID 17 ID 18 ID 28	ID 16 ID 25 ID 29	ID 20 ID 21 ID 22 ID 23 ID 24	ID 30 ID 31 ID 32	ID 19 ID 26 ID 27 ID 33	ID 100 ID 101	
All					ID 98 ID 99 ID 102 ID 104 ID 109		ID 95 ID 96 ID 97 ID 107 ID 108