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Older People’s Resilience in the Context of Climate-Disasters: A Single Instrumental Case Study of Older Women in Poverty who are Widowed, Head of Household, and Living in a Disaster-Affected Community in the Philippines

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Older People’s Resilience in the Context of Climate-Disasters: A Single Instrumental Case Study of Older Women in Poverty who are Widowed, Head of Household, and Living in a Disaster-Affected Community in the Philippines

by

Crystal Kwan

A THESIS
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Abstract
While disasters are not a new phenomenon, the intensity and frequency of them have increased and are projected to continue to escalate due to climate change, globalization, rapid urbanization, and environmental degradation. Older people living in poverty represent a vulnerable group who require special attention because often their limited access to social, economic, political, and environmental resources increase their risk to the impacts of disasters.

The purpose of my study was to identify the key factors and processes (specifically during the mitigation phase of the disaster management cycle or non-disaster times) that shape and influence older people’s resilience within the context of disasters, with a focus on older women living in poverty. My research design was primarily informed by case study methodology, and it included participatory action research (PAR) elements. Purposive sampling was conducted in Apitong, a community in Tacloban City, Philippines that was deeply affected by the 2013 typhoon Haiyan. Four participants were recruited as key informants of the case: a group of older women living in poverty, who are widowed, head of household, and living in a disaster-affected community in the Philippines. The following data collection methods were used: Photovoice (PV)/Videovoice (VV), semi-structured interviews (including one-to-one, focus group, and peer interviews), observation, and document review. The participants were involved in data collection, as they were trained in basic camera use, the PV/VV process, and how to conduct peer interviews. A translator was used in all the interviews, training workshops, and transcriptions. I conducted analysis (using thematic analysis) continuously and recursively, alongside data collection.

Utilizing a socio-ecological conceptual framework of resilience, I identified seven environmental and one individual factor and processes that shape and influence the participants’
resilience. My study findings contribute to the paucity of literature regarding older people’s resilience within the context of disasters, specifically the need for more case-specific and context-based knowledge. Additionally, within the discipline of social work, my study informs education, research, and practice in two overlooked but critical areas: green and gerontological social work.

Keywords: older people, resilience, disasters, Philippines, mitigation, case study methodology, participatory action research, gerontological social work, green social work
Acknowledgements

I could not have completed this dissertation without the contributions of several individuals and groups. First, I acknowledge the four participants of my study, Nanay Aca, Nanay Pipay, Nanay Corit, and Nanay Fe. It was their curiosities, patience, commitment, time, and ideas toward my study that allowed me to dive deep into exploring and understanding this critical topic. I am indebted to them for allowing me to bear witness and to be inspired by their stories of resilience.

Second, Christine Walsh, my supervisor, was instrumental in guiding me through the PhD program and the completion of my dissertation. Despite being the Associate Dean (Research and Partnerships) and having a multitude of both professional and personal commitments that would render her with a limited amount of time and energy to attend to me, she had always made me feel like I was a priority and responded with wisdom to every question, self-doubt, confusion, insight, and frustration I shared with her. Her blunt and forward, yet encouraging approach to mentorship, has equipped me with skills, knowledge, experiences, and confidence to navigate the world of research in an attentive, fully-present, reflective, and innovative manner. I started the PhD program with thoughts such as “I think I can do research?” Now, I say with conviction “I am a researcher,” and this was largely due to the uncompromising encouragement and direction of Christine.

Third, I recognize the time and care that Julie Drolet and Sandra Hirst, my committee members, have afforded me throughout the cycles of review and revisions related to my dissertation. Their feedback has propelled me to understand and explore concepts, phenomenon, literature, and ideas in ways that I never thought of; as such I was able to include additional content and analysis that enhanced the quality of my dissertation.
Fourth, the staff of COSE (namely, Emily Beridico, Kate Pagsolingan, and Aniway Aballe), have been generous in taking time from their busy schedules to respond to my inquiries and to support me in the recruitment of the research site and participants. I appreciate and am grateful for the staff’s openness to engage and work with researchers.

Fifth, I honour my family (my four siblings: Melody, Michelle, Gail, and Stephen; my niece Kyli; and my parents: Joe and Joyce) for their support throughout this journey. While they never fully understood what I was doing (e.g., What is social work? Why are you still in school? Why are you in the Philippines again?), their love and encouragement to continue this path were relentless.

Sixth and lastly, I acknowledge the support from the Social Sciences Health and Research Council (SSHRC) and the Killam Trusts. I was able to fully immerse in my research endeavours because of these scholarships, and I am deeply grateful for them.
Dedication

I dedicate my dissertation to Annie Khuu, my best friend since Grade one who has been on this lifelong learning journey with me. Thank you for constantly reminding me, explicitly and implicitly to be curious and reflective when I was stalled and uninspired; to invite all my emotions to be felt throughout this journey – even the “negative/bad ones”; and to take a break, even when I felt I did not deserve it. Most of all, thank you for reminding me that I was enough whether or not I achieved something or not. From cradle (or in our case, Grade 1) to grave we will never stop learning and growing.
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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>ADL</td>
<td>Activities of Daily Living</td>
</tr>
<tr>
<td>ADRC</td>
<td>Asian Disaster Reduction</td>
</tr>
<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>CAD</td>
<td>Canadian Dollar</td>
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<tr>
<td>CFREB</td>
<td>Conjoint Faculties Research Ethics Board</td>
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<tr>
<td>COSE</td>
<td>Coalition of Services of the Elderly</td>
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<tr>
<td>CRED</td>
<td>Centre for Research on Epidemiology of Disasters</td>
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<tr>
<td>DRR</td>
<td>Disaster Risk Reduction</td>
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<tr>
<td>GAD</td>
<td>General Anxiety Disorder</td>
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<td>GSC</td>
<td>Global Shelter Cluster</td>
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<td>HAI</td>
<td>HelpAge International</td>
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<tr>
<td>IADL</td>
<td>Instrumental Activities of Daily Living</td>
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<tr>
<td>IFRC</td>
<td>International Federation of the Red Cross and Red Crescent Societies</td>
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<tr>
<td>ILO</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>IRB</td>
<td>Institutional Review Board</td>
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<tr>
<td>KPH</td>
<td>Kilometre per hour</td>
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<tr>
<td>Kw</td>
<td>Korean Won</td>
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<tr>
<td>LICO</td>
<td>Low-income Cut-off</td>
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<td>LIS</td>
<td>Luxembourg Income Survey</td>
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<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
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<td>MPI</td>
<td>Multidimensional Poverty Index</td>
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<td>MSW</td>
<td>Master of Social Work</td>
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<tr>
<td>NGO</td>
<td>Non-government organization</td>
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<tr>
<td>ODI</td>
<td>Overseas Development Institute</td>
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<td>OPHI</td>
<td>Oxford Poverty and Human Development Initiative</td>
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<tr>
<td>OPA</td>
<td>Older People Association</td>
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<tr>
<td>OPO</td>
<td>Older People Organization</td>
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<tr>
<td>PAR</td>
<td>Participatory Action Research</td>
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<td>PTSD</td>
<td>Post-traumatic Stress Disorder</td>
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<td>PV</td>
<td>Photovoice</td>
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<td>SDG</td>
<td>Sustainable Development Goal</td>
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<tr>
<td>SFDRR</td>
<td>Sendai Framework for Disaster Risk Reduction</td>
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<tr>
<td>TA</td>
<td>Thematic Analysis</td>
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<tr>
<td>TESDA</td>
<td>Technical Education and Skills Development Authority</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>US</td>
<td>United States</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>UNISDR</td>
<td>United Nations International Strategy for</td>
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<td>Disaster Reduction</td>
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<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
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<td>USD</td>
<td>United States Dollars</td>
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<td>VV</td>
<td>Video Voice</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<td>WTC</td>
<td>World Trade Center</td>
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Chapter 1: Introduction

1.1 Chapter Overview

I begin this introductory chapter by elaborating on the background, purpose of the study, research questions, and motivations that inform my study. Then, I delineate the timeline of field activities, and significance of the study. Lastly, I discuss the study’s relevance and contributions to two areas of social work: green and gerontological social work.

1.2 Background

From March 14th to 18th, 2015 the United Nations (UN) organized and facilitated the third World Conference on Disaster Risk Reduction and the result was the adoption of the Sendai Framework for Disaster Risk Reduction (SFDRR), 2015-2030 (UN General Assembly, 2015). The SFDRR was the first of three landmark (and inter-related) global post-2015 policy frameworks organized and adopted by the UN; the other two were the Sustainable Development Goals (September 2015) and the Paris Agreement (December 2015) (Aitsi-Selma & Murray, 2015). The UN used (and replaced) the Hyogo Framework for Action 2005-2015 to create the SFDRR. In the SFDRR, the UN outlined "global targets, guiding principles, priorities for action, the role of stakeholders and international cooperation and global partnership" (UN General Assembly, 2015, p. 1). Furthermore, the UN stated that disaster-prone (e.g., archipelagic countries and countries with extensive coastlines) and lower income countries were considered a focus area as these countries “warrant particular attention in view of their higher vulnerability and risk levels, which often greatly exceed their capacity to respond to and recover from disasters” (UN General Assembly, 2015, p. 21).

The Philippines is considered one of the most disaster-prone countries in the world (Bündnis Entwicklung Hilft and UN University – Institute for Environment and Human Security,
In the 2016 World Risk Report, the Philippines, an archipelago of over 7000 islands and a total land area of about 300,000 square kilometers, was ranked the third most disaster-prone country in the world. The country's geographical and geological attributes are reasons why the country is so disaster-prone (Bündnis Entwicklung Hilft and UN University – Institute for Environment and Human Security, 2016).

The Philippines rests along the "highly-seismic Pacific Ring of Fire . . . [which] is an area where the Philippines Sea and Eurasian Tectonic Plates meet and is prone to occurrences of earthquakes, tsunamis, and volcanic eruptions" (Asian Disaster Reduction Center [ADRC], 2016, p. 5). Also, to being along the Ring of Fire, the Philippines is situated on the typhoon belt (above the equator and beside the Western Pacific Ocean), and on average experiences 20 typhoons a year. With one of the warmest temperatures in the world, the Philippines waters are most conducive to the formation of typhoons (which take 28 degrees Celsius to begin forming). Lastly, over 60% of the population in the Philippines live on low-lying coastal islands, which are vulnerable to rising sea levels and storm surges from tropical storms or typhoons (ADRC, 2016).

Compounding these geographical and geological circumstances is the Philippines’ poverty incidence, which is the proportion of people below the national poverty line to the total population (Asian Development Bank [ADB], 2017). In 2015, the poverty incidence in the Philippines was 21.6% (World Bank, 2018a). While this number has decreased since 2009 (which was at 26.3%), it was still relatively high in comparison to other south-east Asian countries, such as Cambodia, Indonesia, Thailand, Vietnam, and Malaysia. Concerning the number of poor older persons in the Philippines as compared to the rest of the population, in 2009 and 2012 the total number of people living below the national poverty line were 23 million and 23.7 million respectively (Castro, 2015). Older persons made up 4.26% and 4.41% of the
total poor population in 2009 and 2012, respectively (Castro, 2015). An important note regarding poverty statistics (globally and in the context of the Philippines) is the lack of age and gender-disaggregated data (e.g., differences in poverty rates between older men and older women) (HAI, 2015a). Such limited data in national and international surveys act as a barrier to informing changes in practices and policies that better understand older people’s realities and challenges. Poverty and disasters are interlinked, whereby the former is both a contributor and a consequence of the latter (McMahon, 2007; United Nations International Strategy for Disaster Reduction [UNISDR], 2008; Centre for Research on Epidemiology of Disasters [CRED] & UNISDR, 2015). Poverty can contribute to disasters, as people out of economic necessity may exploit the environment (e.g., deforestation, overgrazing, land degradation) which predisposes the areas to disasters, such as landslides and floods (McMahon, 2007). Disasters can perpetuate the cycle of poverty, by “depriving the poor of their assets, livelihoods, and labour force” (UNISDR, 2008, p. iii).

The CRED and UNISDR (2015) illuminated the poverty and disaster link in their report. They highlighted that of the 1.35 million disaster-related mortalities between 1996-2015, globally, the majority of deaths occurred in low and lower-middle income countries. The Philippines is a lower-middle income country (gross national income [GNI] per capita between USD 1,026 and USD 4,035) (World Bank, 2018b). Furthermore, the “poorest nations paid the highest price in terms of numbers killed per disasters and per 100,000 population” (CRED & UNISDR, 2015, p. 5).

While disasters are not a new phenomenon, the intensity and frequency of them have increased and are projected to continue to escalate due to climate change, globalization, rapid urbanization, and environmental degradation (UN General Assembly, 2015). It is well
established within the literature and policy discourse that the impacts of disasters are experienced differently, and that specific population groups or communities are more vulnerable than others. Vulnerability in the SFDRR was defined as “the conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of disasters” (UN General Assembly, 2015, p. 10). Older people living in poverty are generally categorized as a vulnerable group because often their limited access to social, economic, political, and environmental resources increase their risk to the impacts of disasters (HelpAge International [HAI], 2013a). Yet, there is a paucity of literature that recognizes and explores the complexity, particularity, and heterogeneity that characterizes this group's vulnerabilities and, more importantly their resilience within the context of disasters (the definition of resilience is described in detail in Chapter two). Drolet and colleagues (2015) advocated that it is not enough to focus on reducing the vulnerabilities of marginalized people and communities, but rather there is a need for resiliency building which is a “call for empowering responses to disasters, which aim to support and foster people’s resilience, enhancing their ability to respond to disasters, against a backdrop of the longer term [development] challenges [such as,] building sustainable livelihoods” (p. 435). Older people who live in poverty represent a vulnerable group who require special attention, as "poverty and disasters are inextricably linked" (McMahon, 2007, p. 95). The UN stated in the SFDRR that disaster risk reduction requires "special attention to people disproportionately affected by disasters, especially the poorest" (UN General Assembly, 2015 p. 7). By focusing on older people who are living in poverty, my study responded to the UN’s call to focus on the links between poverty and disasters.
Further, there can be considerable circumstantial diversity in understanding what contributes to or challenges older people’s resilience within the context of disasters. As an example, the political context in the Philippines impacted the response and recovery efforts post-Typhoon Haiyan in 2013. The Philippines’ political institutions have been (and continue to) be dominated by political families/clans since that time (Tadem & Tadem, 2016). Also, the long-time rivalry between two political dynasties, namely the president (and his family) and the mayor (and his family) of Tacloban City, negatively impacted the delivery of aid to the affected population (e.g., delays in receiving aid and unequal distribution of aid) (Hodal, 2013). I discuss more about the political context of the Philippines in reference to my findings in Chapter four.

Within the literature focused on disasters and older people, there is a need for more case-specific and context-based knowledge. Older people's resilience needs to be understood in both generalized and particular situations, yet the latter is largely missing from the literature. Practitioners, policy and decision makers, and researchers need to know how and in what circumstances older people living in poverty find themselves resilient in the face of climate disasters (Arora-Jonsson, 2011). The need for more case-specific and context-based knowledge was echoed by the UN in the SFDRR: "while the drivers of disaster risk may be local, national, regional or global in scope, disaster risks have local and specific characteristics that must be understood for the determination of measures to reduce disaster risk" (UN General Assembly, 2015, p.8). Lastly, there is also a need to understand older people’s resilience throughout the disaster management cycle which include four phases: mitigation, preparedness, response, and recovery (these four phases are explained further in Chapter two).
1.3 Purpose of Study

The purpose of my study was to identify the key factors and processes that shape and influence older people’s resilience within the context of disasters, with a focus on older women living in poverty. The specific research questions were:

- What are the key individual and environmental factors and processes (specifically during the mitigation phase of the disaster management cycle or non-disaster times) that drive the resilience of older women living in poverty, who are widowed, head of household, and living in a disaster-affected community in the Philippines?
- How do such factors and processes influence and shape resilience?

In conducting my research, the objectives were two-fold: to provide a rich and in-depth description that capture the peculiarity, heterogeneity, and complexity of older people’s resilience within the context of disasters for a specific cohort of older people, and to explain how a myriad of micro, mezzo, and macro factors and processes shape and influence such resilience.

1.4 Motivations to Conduct the Study

I was motivated to conduct my doctoral research abroad, because of my experiences in the Master of Social Work (MSW) program (specializing in international and community development). Through the program, I learned to re-think the ideas, beliefs, and processes of international development, and how social work practice and research can promote people-centered development (Max-Neeef, 1991). This approach prioritizes the well-being of people and their perspectives and supports local ownership in the development process. With a thirst to learn more about and contribute to people-centered development, I embarked on a four-month participatory research project in the Philippines as part of my practicum, in 2013 (Kwan & Walsh, 2013). Through this research I collaborated with elders to explore how they perceived
and practiced community organizing to address local challenges and realize possibilities. The practicum was hosted by a local non-government organization (NGO) called the Coalition of Services of the Elderly (COSE). COSE works with underserved and marginalized older people and adopts a people-centered approach to their development work. The knowledge, skills, and experience gained from the MSW program solidified my interests in social work research and practice within the context of international development and prepared me to facilitate my doctoral study in the Philippines.

My professors, research practicum, and work experience were three primary sources that shaped my interest and passion in working with older people. Before the MSW program, I had no interest in social work practice and research with the older population. This lack of interest was due, in part, to the negative stereotypes, beliefs, and ideas, shared by many, I had about old age and ageing, as well as my limited experiences working with older people. Various professors (both internal and external to the Faculty of Social Work) who were involved in practice and research in the area of gerontology, were the first to open my eyes to the realities of this broad, inter-disciplinary, and exciting field. For instance, I was a research assistant for a professor whose project was focused on localizing the WHO's (2007) global age-friendly cities project. During this time, I learnt the extent and nature of ageing populations worldwide and the implications and possibilities of this shift in demographics. Importantly, I began to critically reflect on my roles (professionally and personally) and responsibilities to address such implications and contribute to positive change. My practice experience with older people, via my research practicum in the Philippines and work experience as a social worker practicing community development with older people in Calgary, directly challenged my assumptions and beliefs about old age and ageing. It was during these times that I learned (and I am still learning)
how to become a better ally in challenging ageism and its expressions at the individual, family, community, and societal level.

It was also through the MSW program that I began to be more conscious about the ecological environment. I was enrolled in a human behaviour in the environment social work course, a mandatory and regular course in social work programs. Albeit, this specific course was taught somewhat unconventionally, whereby the professor, an advocate for green social work, encouraged us strongly to critically reflect on our social work practice and its relationship with the ecological environment. It was through this course that I began to make the connections between ecological issues such as climate change and social work issues such as inequality and poverty. Specifically, I was motivated to focus on climate disasters because of my (in-direct and limited) participation in the response and recovery work, post-typhoon Haiyan in the Philippines. After my research practicum in 2011, I was still in regular contact with COSE and one of my mentors from the organization. After typhoon Haiyan happened in 2013, I reached out to my contacts and sought to help. In the end, I was able to organize a small-scale Calgary-based fundraiser with family and friends, which provided COSE with funds that supported their response and recovery work, specifically focused on older people and their families. I knew such limited funds had minimal reach, but at least it was of some support in the immediate short-term. Subsequently, I began to ruminate on what it would take for older people, in such a context, to build back (or build back better) after a disaster. The desire to bridge three of my core research interests: international development, gerontology, and environmentalism, motivated me to pursue the topic of resilience from the lens of older people living in poverty and in a climate-disaster affected community in the Philippines.
1.5 **Timeline of Field Activities**

My study involved eight months of field research activity at the research site. In February 2016, the community of Apitong in Tacloban City was selected as the research site. From March to October 2016, I collected data and analysis was ongoing. Lastly, I co-planned and co-facilitated with the participants of my study a one-day local dissemination activity on October 5\textsuperscript{th}, 2016 (I provide details of the event in Chapter five).

1.6 **Significance of the Study**

The significance of the study is four-fold. First, at the local level, the study engaged the participants to learn and develop new skills and knowledge throughout the project. A key component of the research design (case study methodology with elements of PAR integrated throughout) was integrating a series of learning workshops related to basic photography/videography, peer-interviews, creating a video, and organizing and implementing a local dissemination activity (Chapter three provides details of these workshops). Fostering learning in older adulthood, and in particular with marginalized groups, has been found to contribute to personal, family, and community well-being (Merriam & Kee, 2014). Furthermore, at the local level, the study engaged the wider community through two principal activities: a local dissemination event held on October 5\textsuperscript{th}, 2016 and a project, entitled, *Healthy Ageing Service Leaders Training*, that was implemented from October 2018 to January 2019 (details of both activities are discussed in Chapter five). These two activities engaged and brought together diverse stakeholders (e.g., older persons, local government officials, and local community health workers) to learn about, discuss, and attend to issues, challenges, and possibilities related to older people’s resilience. In particular, these activities engaged local policymakers (e.g., local barangay officials and captains) as they play an influential role in shaping resilience within the
context of disasters (e.g., during the response and recovery phases, they are the ones receiving disaster assistance from the national level and are responsible for its distribution at the local level).

Second, at the institutional level, the findings of the study contribute to the development of a stronger evidence base to inform future practices, programs, and policies related to disasters and older people (specifically older women living in poverty). Third, at a methodological level, I utilized multimedia methods in my study that are increasingly used in qualitative studies but remains relatively novel. As such, I provide researchers with further examples and insights into the use, analysis, rigor, and quality of such methods. Fourth and final, within the discipline of social work, the study is significant because it contributes to education, research, and practice in green and gerontological social work. These two are sub-fields within the discipline that are important to develop as population ageing, climate change, disasters, and poverty are pressing issues that impact individuals, families, communities, and social structures/systems, worldwide.

1.7 Relevance and Contributions to Social Work Education, Research, and Practice:

Greening and Gerontologizing the Profession

The study contributes to a re-envisioning of contemporary social work education, research, and practice, to appropriately encompass green and gerontological social work issues as important focal points of the profession. Green social work is about broadening the lens of examining climate change, not just as an environmental and emissions issue; green social work considers how climate change affects vulnerable populations (Dominelli, 2012). Although relatively new to the social work field, scholarship on green social work is growing and various scholars are identifying ways in which the discipline’s unique values, theories, perspectives, and practices contribute to this body of research (e.g., Coates, 2005; Dominelli, 2013; Hetherington
As the scholarship in green social work continues to develop, Gray, Coates, and Hetherington (2013) call for “theoretical frameworks, examples and case studies of what social workers are doing, or might do, in relation to environmental and educational initiatives” (p. 13). My study, which explored how climate disasters implicate a specific vulnerable group (older women living in poverty), is an example of how a social worker integrated a green social work lens into their research practice, and therefore contributes to knowledge building within this body of scholarship (specific implications to green social work are outlined in Chapter five).

Gerontology is the study of the aged, the ageing process, and age as a structure of society (Putney, Alley, & Bengtson, 2005). Given that populations are ageing, social workers will require gerontological knowledge and skills, as issues, challenges, and possibilities of ageing, the ageing process, and age as a structure of society impact all levels of social work practice (micro, mezzo, and macro) and various population groups. Social work research has an important role to play in advancing a strong knowledge base to inform gerontological social work practice and policy (Hooyman, 1998).

Social work, with its unique research values and perspectives, has much to contribute to the multi-disciplinary field of gerontology (Morrow-Howell, Burnette, & Chen, 2005). For instance, Morrow-Howell and colleagues (2005) suggested that the discipline’s contribution to knowledge building within gerontology lies in its integration of four themes when addressing a substantive topic: intervention, social policy, service-delivery, and capacity building. They further stated, “approaching the study of substantive areas with research questions that address these themes brings the unique perspectives of social work to the forefront” (p. 240). Despite the
changing demographics and “the clear need for social work research in aging, the profession is still underrepresented in the research enterprise” (Mehrotra, Townsend, & Berkman, 2009, p. 148). Furthermore, Mehrotra and colleagues (2009) argued that “there is an ongoing need to bring new investigators into age ing research given that the contribution that social work research can make to enhancing the well-being of older people from diverse ethnic and cultural backgrounds” (p. 159). I responded to this call for advancing gerontological social work knowledge vis-a-vis my empirical research with ethno-culturally diverse older people. Also, my study approached the substantive topics of older people’s resilience within the context of disasters and poverty with older people, with the intention to shed further insights into intervention, social policy, service delivery, and capacity building.

1.8 Organization of Dissertation

In this introductory chapter, I contextualized the study, stated the purpose and research questions, unveiled my motivations to pursue this study topic, reviewed the timeline of field activities, identified the research products, and explained the significance and contributions of the study. In Chapter two, I critically review literature related to older people’s resilience within the context of disasters and old age poverty. It is important to note that this dissertation include published peer-reviewed, under-review, and in-press content, in which I am the first or second author. Specifically, in Chapter two, I integrate a book chapter, two manuscripts, and additional commentary that synthesize the different elements together for the purposes of this dissertation. As required by the University of Calgary’s thesis guidelines, details, such as authorship and copyright permissions, of the book chapter and manuscripts are provided in Chapter two. Furthermore, in Chapter two, I identify the conceptual framework of resilience that was adopted in my study. Chapter three is where I outline and describe my research paradigm and
methodology in depth. I integrate text from an in-press manuscript that I co-authored in Chapter three as well (details of authorship and copyright permissions of the manuscript are provided in Chapter three). Additionally, with an aim to practice reflexivity, I discuss in this chapter who I am (e.g., the various identities I hold) in relation to the study.

In Chapter four, I present the research findings and the supporting evidence relevant to the research questions. Also, due to the nature of case study methodology (which I describe in more detail in Chapter three) there are two additional sections added to Chapter four. First, is an in-depth description of the physical, demographic, political, economic healthcare, and cultural setting of the Philippines (both at the national and more local levels, such as the city or community of the research site), because the principal authors of case study methodology (Merriam, 1998; Stake, 1995; Yin, 2003) ascertained that the phenomenon studied should be examined or understood within the context in mind. Second, is a description of the case, which the same principal authors (Merriam, 1998; Stake, 1995; Yin, 2003) also suggested as necessary to report in great detail so that readers are more informed when judging the transferability of the findings for similar or different cases. Lastly, in Chapter five I interpret and discuss the findings presented in Chapter four as they relate to my research questions and the literature. Also, in this chapter I make recommendations for future research, delineate the research implications to the local context and social work profession, identify limitations in my study, and provide concluding remarks.
Chapter 2: Literature Review

2.1 Chapter Overview

In this chapter, I critically review the literature concerning older people’s resilience within the context of disasters and old age poverty. While the two phenomena are interlinked and the connections between the two are now recognized by the UN in global policies such as the SFDRR, the literature has largely developed separately from one another (UN General Assembly, 2015). Thus, my review is divided into four sections. Firstly, I review how the broad concept of resilience is conceptualized in various disciplines and identify the conceptual framework of resilience that I adopted in my study. Secondly, using this notion of resilience, I critically review the literature on older people’s resilience within the context of disasters and map out the existing evidence-based knowledge, knowledge gaps, and areas for future research. Thirdly, I delineate the current research on old age poverty, where I also highlight the gaps in literature and areas for knowledge-building. Fourth and lastly, I situate my study by outlining how the findings of the reviews inform my study and how my study addresses the various knowledge gaps identified.

2.2 Explanation of Integrating Published, under-Review, and in-Press Work in Chapter Two and Contribution of Authors

Prior to presenting the literature review, it is important to note that in this chapter, I integrated large sections of text from a chapter of a book that is currently under-review (Kwan, C., & Drolet, J. [under-Review]. Chapter two: The literature review. In J. Drolet [Ed.], Rebuilding lives post-disaster: Innovative community practices for sustainable development. New York: Oxford University Press), the entirety of a peer-reviewed published manuscript (Kwan, C., & Walsh, C. A. [2017]. Seniors’ disaster resilience: A scoping review of the
literature. *International Journal of Disaster Risk Reduction, 25*[2017], 259-273), and a manuscript currently in-press (Kwan, C., & Walsh, C. A. [in-Press]. Old age poverty: A scoping review of the literature. *Cogent Social Sciences Journal*). I am the first author of each of these contributions, whereby I acquired, analysed, and interpreted the data and led the writing of each (International Committee of Medical Journal Editors [ICMJE], 2017). Dr. Christine A. Walsh, my Ph.D. supervisor, is the co-author of the two manuscripts, and Dr. Julie Drolet, a member of my supervisory committee, is the co-author of the book chapter. Both authors meet the criteria for authorship as espoused by the ICMJE, who "provides a definition of authorship that is applicable beyond the medical sector" (Graf et al., 2007, p. 3). The four criteria are:

1) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; 3) final approval of the version to be published; and 4) agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. (ICJME, 2017, para. 2)

Permission was obtained from the *International Journal of Disaster Risk Reduction* to reprint and include the published manuscript in my dissertation (see Appendix A). Permission was obtained by the Oxford University Press to reprint and include text from the book chapter in my dissertation (see Appendix B). Permission was obtained from the *Cogent Social Science* to reprint and include the in-press manuscript in my dissertation (see Appendix C). Lastly, permission was obtained by the co-authors to include published and unpublished manuscripts (or text from a book chapter), in my dissertation (see Appendix D and E).
2.3 Resilience: A Multi-Disciplinary Concept

While the term, resilience, is increasingly being seen in DRR practice, policy, and research documents, the concept can still be quite nebulous (Thoren, 2014). This ambiguity is due to the multi-disciplinary roots (e.g., ecology, psychology, and social work) and variations of the term resilience (e.g., engineering resilience, psychological resilience, ecological resilience, and community resilience).

Resilience is a concept that is theorized, researched, and applied in multiple disciplines, including ecology, psychology, social work, urban studies, archeology, and engineering, amongst others (Thoren, 2014). While the disciplinary roots of the concept are contested and difficult to determine, two disciplines, ecology and psychology, have focused extensively on exploring the concept of resilience beginning from the 1970s to present. The protracted discussions of resilience within these two disciplinary fields is influential to the way resilience is conceptualized in other disciplines and fields, including social work and DRR.

2.3.1 Conceptualizing resilience: An ecological perspective.

There are two contrasting conceptualizations of resilience that continue to be used within the ecological literature and beyond. The first definition of resilience, termed engineering resilience, is known as the traditional/classical definition of resilience. Within this conceptualization, resilience is understood as the ability of a system to return to a state of equilibrium or a steady state after experiencing a disturbance (Holling, 1973). The measures of resilience then are how far the system has moved from this steady state and how quickly it can return to that same state. An assumption within this definition is that there is only one global or single state of equilibrium to which the system can return. Efficiency, constancy, and predictability are the focus of this definition, and Holling (1996) stated that these attributes are at
the "core of an engineer’s desire for fail-safe design" (p. 33). Hence, he labeled this definition as engineering resilience.

The second definition of resilience, ecological resilience, is the contemporary definition. Within this conceptualization, resilience is understood as the ability to adjust and change into alternate states. The measure of resilience then is the degree of disturbance the system can absorb before its structure is redefined, whereby the variables and processes that control behaviour are also changed (Holling, 1973). An assumption within this definition is that there are multiple states of equilibrium that systems can achieve and not just a single or global steady state. Persistence, change, and unpredictability are the focus of this definition, and Holling (1996) suggested that all the "attributes [are] embraced and celebrated by the biologist with an evolutionary perspective and by those who search for safe-fail designs" (p. 33).

2.3.2 Resilience in the disaster risk reduction field.

The concept of resilience in the DRR field is derived from the discipline of ecology and mirrors how it has evolved in that discipline. For instance, the concept emerged in the DRR literature as early as the 1980s, where it “evolved from coping or resisting into adapting, from everyday coping to long term strategic adaptation; and from stability to adaptability, to discontinuous change and to alternate stable states” (Aldunce, Beilin, Handmer, & Howden, 2014, p. 257). In other words, resilience within the context of disasters has evolved from being understood as the capacity of a system (e.g., individual or community) to bounce back to their pre-disaster state to the capacity of a system to bounce back better than their pre-disaster state (Kennedy, Ashmore, Babister, & Kelman, 2008).
2.3.3. Conceptualizing resilience: A psychological perspective.

Within psychology, resilience theory began and was refined primarily through empirical research focused on at-risk children and youth (Masten, 2014). Pioneers of the concept of resilience, Norman Garmezy, Michael Rutter, and Emmy Werner, were originally focused on children at risk of developing psychopathological disorders due to life circumstances such as having a parent with a mental illness or inter-parental conflict. They found that many at-risk children were thriving despite the adverse life circumstances they were encountering. Thus, the focus shifted from trying to identify factors that led to negative outcomes such as disease, dysfunction, and disorder to trying to identify predictors of positive outcomes.

There are four generations or waves of resilience research in the field of psychology (Masten, 2014). The focus on identifying personal factors of resilience was characteristic of the first wave of resilience research. The second wave was concerned with identifying processes of resilience, with a greater recognition that resilience is not just internally derived, but externally as well. With the inclusion of external factors, the idea that resilience could be fostered became a possibility. The third wave of resilience research was intervention-focused, and it sought to answer the question: how can we use this knowledge and understanding of factors and processes of resilience (both personal and ecological) to develop and design “appropriate prevention and intervention strategies” (Luthar, Cicchetti, & Becker, 2000, p. 544).

Resilience researchers Liebenberg and Ungar (2009) advanced that a fourth wave is currently underway. This fourth wave, they argued, concentrates on decolonizing resilience theory, whereby there is an explicit recognition that resilience theory and subsequent interventions have emerged and are dominated by Western ideologies and experiences. Culture and context, then, are given prominent consideration in an understanding of resilience, and the
subsequent intervention strategies developed. This fourth wave does not make knowledge gained from the previous waves defunct; rather, “each wave remains part of a larger body of thought that is focused on people’s successful growth rather than breakdown” (Ungar & Liebenberg, 2009, p. 6).

2.3.4 Conceptualizing resilience: A social work perspective.

The evolution of resilience in social work is interwoven with the development of resilience in psychology. Initially conceptualized in the discipline of psychology, social work researchers have contributed greatly throughout the various waves of research. Specifically, Michael Ungar, a leading Canadian academic researcher in youth resilience, has been influential in shaping the concept of resilience (e.g., Ungar, 2001, 2003, 2004, 2005, 2006, 2008, 2010, 2011, 2012, 2013 2015; Ungar et al., 2007; and Ungar & Liebenberg, 2009). His work has contributed to a more comprehensive and multi-dimensional conceptualization of resilience that moves beyond individual/personal traits to include relationships factors, community contexts, cultural factors, and physical ecology factors (Resilience Research Centre, 2017).

Ungar (2016) proposed a socio-ecological approach and conceptualized resilience as:

I. The capacity of individuals to navigate their ways to resources that sustain well-being;

II. The capacity of individuals’ physical and social ecologies to provide those resources; and

III. The capacity of individuals and their families and communities to negotiate culturally meaningful ways to share resources. (p. 3)

As the definition above illustrates that resilience is not static; instead, it is a dynamic and complex set of intersecting factors and processes “sensitive to individual, contextual, and cultural
variation (differential impact)” (Ungar, 2013, p. 262-263). Ungar (2016) incorporated elements from both the psychological and ecological literature in theorizing resilience. This is aligned with the person-in-environment perspective, a fundamental approach in the social work discipline (Heinonen & Spearman, 2010).

The person-in-environment perspective is based on the notion that, to understand an individual (e.g., their behaviours, problems, issues, challenges, strengths, and resilience), the systems within their environment (e.g., social, cultural, economic, physical, temporal, familial, and political) must also be considered (Heinonen & Spearman, 2010). Within this perspective, individuals can influence and be influenced by their environments. Thus, this approach encourages both a personal and contextual understanding of resilience and calls our attention to the individual and environmental factors and process (and their interplay) that may impact resilience.

An important point to note regarding Ungar’s (2016) definition of resilience, is that between the interactional process of the individual and environment, the latter is most important. Ungar (2013) argued that it is necessary to identify the environment as the most significant variable in this interactional process (“nurture trumps nature”), as it shifts the blame and burden away from the individual and “implicates those who control the resources that facilitate psychological well-being in the proximal processes . . . associated with positive development in contexts of adversity” (p. 255). Regarding interventions, rather than focusing on the individual or the "first-order change that helps them cope better following adversity," Ungar (2013) encouraged a focus on facilitative environments or a "second-order change that addresses the environment's shortcomings, increasing the odds that resilience will occur" (p. 257).
2.4 Resilience as Conceptualized in my Study

In my study, a social work perspective of resilience was adopted, drawing heavily from the person-in-environment perspective (Heinonen & Spearmen, 2010) and Ungar's (2016) socio-ecological approach to resilience. The conceptual framework of resilience in my study included the following. Firstly, resilience was a set of intersecting factors and processes that occur at the individual and environmental level (Ungar, 2013). Secondly, resilience was not considered an innate nor static construct; it was fluid and malleable to personal, circumstantial, and cultural variation (Ungar, 2013). “Put differently, resilience is not a science nor does it deal with regularities in our experience, but rather, it is an art that addresses singularities as we experience them” (Manyena, 2006, p. 439). Thirdly, resilience was considered within the context of disasters. Therefore, resilience was defined as the capacity of individuals and their environments to mitigate, prepare for, respond to, and recover from the impacts of disasters in such a way that also addresses longer term development challenges (Drolet et al., 2015). In this way, resilience was more than simply building back to pre-disaster conditions but rather about “building back better” (Mannakkara & Wilkinson, 2014).

With this conceptual framework of resilience in mind, I conducted a scoping review of the literature regarding older people’s resilience in the context of disasters. Sections 2.5.1 to 2.5.6 encompasses the entirety of the published manuscript, Seniors’ Disaster Resilience: A Scoping Review of the Literature (I used the term seniors’ disaster resilience in the published manuscript, however in my dissertation it connotes to older people’s resilience within the context of disasters). In these sections, I presented the introduction (or background context of why the scoping review was needed), methods used to conduct the literature review, results (e.g., what were the risk and protective factors and processes of older people’s resilience within the context
of disasters), and discussion (e.g., identifying the gaps in knowledge and areas for future research).

### 2.5 Seniors’ Resilience within the Context of Disasters: A Scoping Review of the Literature

#### 2.5.1 Introduction.

In 2000, for the first time in human history, the global number of older people (60+) surpassed the number of children (14 years of age and under) (United Nations Population Fund [UNFPA] & HelpAge International [HAI], 2012). Population ageing was a result of decreased fertility rates and increased life expectancies (Shetty, 2012). Worldwide, the older population will continue to grow at an unprecedented rate, whereby the number of older people is projected to triple to 1.5 billion between 2010 and 2050 (WHO, 2011a). By 2050, one in five people in the world will be 60 years of age or older (UNFPA & HAI, 2012). These changes have significant social and economic implications and for future DRR practice and policy.

Older people have been disproportionately impacted by disasters. For instance, 75% of the disaster-related deaths during Hurricane Katrina in 2005 were older people (60+), even though they represented just 16% of the total population (Wilson, 2006). In the 2011 Japanese tsunami, 56% of the disaster-related deaths were older people (65+) despite the fact that they represented only 23% of the entire population (HAI, 2013a). When typhoon Haiyan struck the Philippines in 2013, 40% of the subsequent deaths were older people (60+), while they constituted a mere 7% of the total population. Age alone does not explain the disproportionate mortality rates of older people (and what can be done to enhance their resilience to such disasters), intersecting factors and processes do.

The purpose of our paper was to use scoping review methodology to identify the evidence-based knowledge on the main factors and processes (at the individual and
environmental level) that bolstered or hindered older people’s resilience throughout the disaster management cycle: i) mitigation, ii) preparedness, iii) response, and iv) recovery (Coetzee, 2012).

Mitigation includes activities and measures carried out during non-disaster times that prevent or reduce the adverse impacts of disasters (Coetzee, 2012). Mitigation can include development initiatives that enhance physical and social infrastructures, for example (Contreras, 2016). Similarly, the preparedness phase involves plans and actions conducted in a pre-disaster context. Albeit, in this phase, such efforts are focused on being able to respond effectively during and in the immediate aftermath of a disaster (while in the mitigation phase the efforts are more long-term focused). Development of disaster plans, and emergency kits are examples of preparedness endeavours.

The response phase, which occurs in the post-disaster context, is linked to the preparedness phase, as it constitutes the efforts carried out during and in the immediate aftermath of a disaster (Coetzee, 2012). Evacuation processes and shelters, search and rescue operations, and distribution of relief goods (e.g., food, water, medicines) are examples of efforts during the response phase (Contreras, 2016). The recovery phase follows the response phase and aims at returning the affected communities to a new state of normalcy, rather than to the community’s pre-disaster state, “which can replicate and worsen existing vulnerabilities faced by the community” (Mannakkara & Wilkinson, 2014, p. 328). Importantly, this phase can be a long-term process, as the affected communities should be engaged in “the reconstruction process to improve a community’s physical, social, environmental and economic conditions to create a more resilient community” (p. 329). Recovery initiatives include for example, “the restoration, and improvement, of facilities, livelihoods, and living conditions of disaster-affected
communities” (UN Space-based Information for Disaster Management and Emergency Response, 2017, para. 1).

Disaster management is not a linear process, and the four phases sometimes overlap (Contreras, 2016). However, examining older people’s resilience throughout the different phases can provide a nuanced understanding of what bolsters or hinders resilience, and how that might change (or remain constant) throughout the various stages.

2.5.2 Methods.

A scoping review is a systematic means of determining “the extent, range and nature of research activity” (Arksey & O’Malley, 2005, p. 21), guided by a broad research question. It is an appropriate approach for research topics that have not been reviewed comprehensively (Dijikers, 2015), such as older people’s resilience within the context of disasters.

Arksey and O’Malley’s (2005) methodological framework was used to conduct our scoping review of peer-reviewed literature. Their framework consisted of 6 stages: 1) identify the research question(s); 2) determine the relevant studies; 3) select the studies; 4) chart the data; and 5) collate, summarise, and report the results. The final optional sixth stage – to engage stakeholders in contributing to the review, was not undertaken in our review. The following questions guided our review: i) What phase(s) of the disaster management cycle (mitigation, preparedness, response, and recovery) do the studies focus on? ii) Within each phase, what factors and processes are investigated, found to be relevant, and bolstered or hindered resilience?

2.5.3 Definitions, data sources, search strategies, and eligibility criteria.

Disasters can be defined in various ways (Dominelli, 2013). For instance, they can be categorized as (hu)man-made or natural. (Hu)man-made disasters include, armed conflict, radioactive disasters, and hazardous materials disasters, for example. While natural disasters can
include, typhoons, tornadoes, floods, volcanos, and earthquakes. Furthermore, disasters can be acute (e.g., a typhoon) or chronic (poverty). Importantly, as Dominelli (2013) asserted, “the lines between these types of disasters are becoming increasingly blurred” (p. 433). For example, often natural disasters have (hu)man-made origins or acute disasters can become chronic. In our review, disaster was narrowly defined as the exposure to climate-related (or natural) hazards (e.g., earthquakes, hurricanes, and floods) combined with "the conditions of vulnerability that are present, and insufficient capacity or measures to reduce or cope with the potential negative consequences" (UNISDR, 2009, para. 12). Seniors (or older people) are defined as individuals who are 50 years of age and older to account for the diverse economic, cultural, political, and historical contexts of ageing (Wilson, 2000).

In August 2017, a scoping review was conducted in 9 databases: Abstracts in Social Gerontology, Social Work Abstracts, Academic Search Complete, Environment Complete, Public Affairs Information Service (PAIS) Index, SocINDEX with full text, PubMed, CINAHL Plus with full text, and PsycINFO. The databases were searched for instances of resilience (and variations of the term: bounce back or bounce back better), seniors (and variations of the term: older people, elderly, older adults, ageing populations, or aged), and disaster in the abstract, and articles with the keywords in the abstract were included for further review of relevancy. Additional criteria for inclusion was that articles were published in English between January 2000 and August 2017 and reported original research.

The initial search yielded 256 articles. After duplicates were removed and the abstracts were scanned for the inclusion criteria, five articles remained. To ensure the search was comprehensive, three additional search strategies were employed. First, the contents listings were searched for six disaster-specific journals: Disaster Prevention and Management, International
Journal of Disaster Risk Science, International Journal of Disaster Risk Reduction, Global Environmental Change, Disasters, and International Journal of Disaster Resilience in the Built Environment. This search strategy yielded five articles. Secondly, a search of Google Scholar (the first ten pages only) produced an additional nine articles. Finally, a hand-search of the reference lists of the 19 articles led to the identification of 14 articles that met the inclusion criteria. Thus, the final sample for the review was 33 articles. Figure 1 shows the search history and results for our scoping review.

Figure 1. Search History and Results for the Scoping Review of Seniors’ Resilience within the Context of Disasters

Data extracted for the review focused on: i) descriptive characteristics of the study (which included: author(s) name(s), year of publication, location of study, and type of disaster(s)), ii) research methodology and sample size; iii) phase(s) of the disaster management cycle: mitigation, preparedness, response, and recovery; iv) factors and processes (individual and
environmental) examined in the studies, and found to either bolster, hinder, or have no significant effect on older people’s resilience. The extracted data was inputted into an Excel spreadsheet, which was used to collate, summarise, and synthesise the data. A qualitative approach as espoused by Weeks and Strudsholm (2008) was used to theme the data whereby similar descriptive characteristics, methodologies, and findings were grouped, and categories were identified.

2.5.4 Results.

2.5.4.1 Descriptive and methodological characteristics.

Most studies were conducted in the United States (n=20), with two each in Australia, New Zealand, Hong Kong, and Taiwan, and one each in China, Honduras, Iran, Japan, and the United Kingdom. In 22 studies the focus was on a particular disaster event (e.g., 2005 Hurricane Katrina and Rita, 1998 Hurricane Mitch, or 1999 Chi-Chi earthquake) and in 10 studies the focus was on disasters in general. In one study the researchers concentrated on two types of disaster: Hurricane Sandy and the World Trade Centre (WTC) terrorist attack. It was included in the review because it included a climate-related disaster. Most studies were quantitative (n=21), 11 were qualitative, and one was mixed-methods. Table 1 (see Appendix F for all tables), highlights both the descriptive and methodological characteristics of each study.

2.5.4.2 Phase(s) of disaster management.

In the majority of the studies, the researchers focused on examining factors and processes relevant to older people’s resilience in the post-disaster context. Specifically, there were 22 studies that included a focus on both the response and recovery phases. In nine of the studies, researchers examined resilience during the preparedness phase, while only one study included a focus on resilience during the mitigation phase. Lastly, Bockie and Miller (2016) were they only
researchers that examined older people’s resilience throughout the four phases of the disaster management cycle.

2.5.4.3 Types of factors and processes examined in the studies.

We identified 14 factors and processes of resilience that were considered in the studies. Nine were at the individual level (e.g., the focus was on personal characteristics of the individual and the person’s ability to affect resilience) and five were at the environmental level (e.g., the focus was on various contexts: social, political, cultural, historical, economic, and physical, and how such settings could affect resilience) (Ungar, 2011). Individual-level factors and processes included: 1) health and functional status, 2) age, 3) gender, 4) income/financial capacity, 5) prior experiences, 6) race/ethnicity, 7) personal characteristics, beliefs, and behaviours, 8) marital status, 9) living arrangements. Environmental level factors and processes consisted of: 10) social support, 11) disaster exposure 12) culture, 13) critical care systems (e.g., health care, transportation, infrastructure, water and electricity, etc.), and 14) risk communication. Tables 2 and 3, present the individual and environmental factors and processes examined in the studies, respectively.

2.5.4.4 Mitigation studies.

In two of the studies, researchers’ investigated factors and processes relevant to older people’s resilience during the mitigation phase. In one of the studies it was found that older age bolstered resilience, while in the other study lower income was found to hinder resilience during this phase of the disaster management cycle.

2.5.4.4.1 Age and income/financial capacity.

Kaluarchichi’s (2013) found, in his quantitative study, age differences in mitigation efforts for extreme weather events among 93 older people in England, whereby older-old participants (75+)
were more willing to invest in building homes that were more structurally resilient in the long term than younger-old participants (ages 65-74). Bockie and Miller (2016) found, in their qualitative study that explored older people’s disaster experiences ($n=10$; Mean age=73) throughout the disaster management lifecycle, that regarding mitigation, while all their participants recognised that they lived on or near a flood-prone area, one of the reasons they did not move was that they could not afford to move or they were not able to purchase a house in a safer area at a reasonable price.

2.5.4.5 Preparedness studies.

In eleven of the studies, researchers examined a variety of factors and processes relevant to older people’s resilience during the preparedness phase. Individual health and functional status was the most frequently investigated variable (included in 6 studies), followed by, gender (5), income/financial capacity (4), age (3), race/ethnicity (3), social support (3), risk communication (3), marital status (2), living arrangements (1), personal characteristics, beliefs, and behaviours (1), critical care systems (1), culture (1), and prior experiences (1).

2.5.4.5.1 Individual health and functional status.

Within six preparedness studies, it was found that a lower health and functional status hindered older people’s resilience in the context of disasters. Albeit, there were two studies whereby this variable was found to have no significant relationship with resilience.

In six of the studies, researchers found that pre-existing chronic health illnesses (such as diabetes and hypertension) and mobility issues/limitations challenged older people’s resilience. For instance, in Bhalla, Burgess, Frey, and Hardy’s (2015) quantitative study in the US of 100 older people (65+), the majority of the participants required special equipment (93%), medication/medical supplies (87%), and almost one third (19%) needed assistance to care for
themselves, which posed additional challenges during and after a disaster. Similarly, Dostal (2015) found in his qualitative study of homebound older people (n=56, age range: 64-105) in the US, that the participants have complex medical needs on par with residents of a nursing home, and thus would challenge their resilience during and after a disaster. Regarding preparedness, participants in Bockie and Miller's (2016) study, reported that flood-proofing their homes were more difficult due to declining functional status as they aged. Similarly, Al-Rousan, Rubenstein, and Wallace (2014) found, in their quantitative study that compared preparedness levels among 1304 older people (50+) living in the US that greater limitations in activities of daily living (ADL) (e.g., bathing, eating, and dressing) and instrumental activities of daily living (IADL) (e.g., managing medications, preparing meals, and going shopping) were independently and significantly associated with worse overall preparedness.

In contrast, Rosenkoetter, Krassen Covan, Cobb, Bunting, and Weinrich (2007) expressed surprise that “several types of chronic health problems . . . or measures of physical disability” were not related to older people’s willingness to evacuate, in their quantitative study that examined the evacuation beliefs and needs of 139 older people (60+) living in the US (p. 9). Similarly, Loke, Lai, and Fung (2012) found, in their quantitative study of 1137 older people (60+) in Hong Kong, that sensory deficits and ADL were not a significant predictor of disaster preparedness.

2.5.4.5.2 Gender.

Gender was examined in relation to resilience in five of the disaster preparedness studies, and only in one study was a gender influence reported. McGuire, Ford, and Okoro's (2007) US national quantitative study of 47,840 older people (65+) with a disability and the implications for evacuation, found that being female, unmarried, white, and those who rate their health as fair or
poor were significantly more likely to require the use of special equipment due to health challenges. In three of the studies, gender was not found to be significantly associated with disaster preparedness (Al-Rousan et al., 2014; Lam et al., 2017; Loke et al., 2012). Also, gender was found not to be a significant predictor of willingness to evacuate in Rosenkoetter and colleagues' (2007) study.

2.5.4.5.3 Income/financial capacity.

Researchers in four preparedness studies examined how income/financial capacity influenced older people’s resilience to disaster. The findings were mixed, whereby in two studies it was found that lower income/financial capacity hindered resilience, and in the other two not to be a primary driver of resilience.

McGuire and colleagues (2007) reported that almost half of the older people in their quantitative study who required special equipment due to health challenges had an income of less than USD 25,000, which further challenged older people’s resilience to disasters during an evacuation. Al-Rousan and colleagues (2014) found that income was independently and significantly associated with worse overall preparedness. However, older people’s willingness to evacuate was not influenced by income/financial capacity in Rosenkoetter and colleagues’ (2007) study. Furthermore, Lam and colleagues’ (2017) found in their quantitative study that investigated the disaster preparedness of different age groups of adults ($n=191$ (18-24); $n=193$ (25-34); $n=158$ (35-44); $n=147$ (45-54); $n=119$ (55-64), $n=93$ (65+), that interestingly, while older age was associated with lower household income, this group had higher “financial resilience,” which was defined by the researchers as the number of weeks of savings the participant had that would support their household in the aftermath of a disaster (p. 66).

2.5.4.5.4 Age.
Researchers in three of the preparedness studies investigated age as a factor associated with older people’s resilience to disaster. In one study it was found that older age was a main driver of resilience and in the other two no significant relationship was found.

Al-Rousan and colleagues’ (2014) found in their study that increasing age (e.g., 85+) was significantly and independently associated with lower preparedness scores. Albeit, Loke and colleagues (2012) did not find that age was a significant predictor of disaster preparedness. Nor was age a significant predictor of willingness to evacuate in Rosenkoetter and colleagues’ (2007) study.

2.5.4.5.5 Race/ethnicity.

Race/ethnicity was considered a variable of interest in understanding older people’s resilience, in three preparedness studies included in the review. In two studies it was found that race/ethnicity was linked to resilience and in one this association was not substantiated.

Rosenkoetter and colleagues' (2007) found that race/ethnicity was strongly associated with willingness to evacuate (whereby, black race/ethnicity was 3.4 times more likely to evacuate than whites). Also, those who required the use of special equipment due to health challenges were significantly more likely to be white in McGuire and colleagues' (2007) study and thus were deemed more vulnerable in the face of disasters. In contrast, Al-Rousan and colleagues (2014) found no association between race/ethnicity (categorized as black/white/other) with preparedness levels among older people in the US.

2.5.4.5.6 Social support.

Social support was examined in three preparedness studies, and within all three it was found that social support bolstered resilience. For example, in Bockie and Miller's (2016) study many participants "recalled how the ultimate decision on when to evacuate [during the 2011 and
2013 Queensland floods] came from discussions with neighbours or information from family, not from social media or official sources” (p. 16). Similarly, Loke and colleagues (2012) found that having neighbours to rely on was a predictive factor for better disaster preparedness, than having no social support from neighbours. The reciprocal nature of social support networks was also highlighted in the literature. Ashida, Robinson, Gay, and Ramierz (2016) found, in their qualitative study on what motivates older people ($n=40$; age 55+) to prepare for disasters, that participants had a desire to “contribute to the well-being of their children, grandchildren, and neighbours more so than ensuring their own well-being” (p. 2134). Thus, for the participants, a motivator of being prepared for disasters was the ability to contribute and be of value to their social support networks during such times.

2.5.4.5.7 Risk communication.

In three of the preparedness studies in which risk communication was investigated, researchers found that a lack of age-friendly, inclusive, and trust-worthy processes hindered older people’s resilience to disasters. For example, participants in Bockie and Miller’s (2016) study compared how risk communication have evolved from being “community meetings to discuss progress and evacuation procedures, and people driving down the streets with megaphones to give updates during the 1974 floods” to “the use of text messages, social media, and overwhelming television coverage” in more recent floods (p. 13). Participants noted that the previous means of communicating during disasters fostered a sense of community and engaged them to be involved in the process, whereas the more recent methods lacked a sense of community and led to feelings of disengagement and isolation. All the participants also reported that they do not use the new forms of technology and social media (e.g., Facebook, Twitter, the internet, or digital TV), which was being utilized to disseminate disaster information. This
finding was similarly reported in Lam and colleagues' (2012) study, whereby the older respondents were more likely to seek disaster information via television or radio, rather than social media, which the younger respondents preferred. Further, participants of Bockie and Miller's (2016) study reported the need to "trust the information sources, particularly with evacuation decisions," (p. 13). The theme of trust was also found in Rosenkoetter and colleagues' (2007) study, whereby "trust and confidence . . . in the information sources were the best predictors of willingness to evacuate" (p. 167).

2.5.4.5.8 Marital status.

Marital status was included as a demographic marker that was investigated in two preparedness studies, whereby in one study researchers found it to be relevant and in the other not. McGuire and colleagues (2007) found that older people who required equipment due to health challenges (which posed a challenge to overall preparedness) were significantly more likely to be unmarried. In Al-Rousan and colleagues’ (2014) study, marital status was not significantly associated with overall preparedness.

2.5.4.5.9 Living arrangements.

In only one preparedness study was there a focus on living arrangements; researchers found that living with others was a significant predictor of enhanced disaster preparedness (Loke et al., 2012).

2.5.4.5.10 Personal characteristics, beliefs, and behaviours.

Personal characteristics, beliefs, and behaviours was examined only in one preparedness study. Loke and colleagues (2012) reported that the perceived ability to help themselves was a significant predictor factor of better preparedness.

2.5.4.5.11 Critical care systems.
In one of the preparedness studies, researchers explored how critical care systems, specifically public health services, influenced older people’s resilience. Al-Rousan and colleagues (2014) considered the role of health care providers in supporting older people’s disaster preparedness but found that only 4.9% of respondents in their study reported that their doctors or health care providers discussed disaster preparedness with them.

2.5.4.5.12 Culture.

In one of the preparedness studies in the review, researchers investigated the role of culture; specifically, sociocultural norms of self-reliance and independence, and found that it was a driver of resilience. Tuohy and Stephens (2011) found, in their qualitative study that explored disaster preparedness from the perspective of 16 older people (65+) living in New Zealand, that "personal autonomy and self-responsibility are cultural markers by which older adults increasingly define their lives and identity" (p. 613). Maintaining such autonomy and independence were perceived to be a priority for the participants, and preparedness for disasters meant in many ways ensuring that their ability to be self-reliant and independent was not compromised following a disaster. In most cases, this meant a focus on health, whereby preparedness for disasters was related to their health concerns in the context of disasters (e.g., having access to their medications).

2.5.4.5.13 Prior experiences with disasters.

In Bockie and Miller (2016) study, prior experiences with disasters were found to be one of the main themes relevant to disaster preparedness. For instance, many of their participants reported using their previous disaster experiences to make decisions during evacuation and shared such knowledge with other locals. The researchers suggested that their findings highlighted that "rather than greater vulnerability, a lifetime of experience can provide a
tendency for resilience in the face of adversity” (p. 14). Table 4 and 5 present the key findings relevant to the individual and environmental factors examined in the mitigation and preparedness studies.

2.5.4.6 Response and recovery studies.

In 23 studies, researchers examined factors and processes relevant to older people’s resilience during both the response and recovery phase. Social support was the factor most frequently examined (11 studies), followed by age (9), income/financial capacity (8), gender (8), prior experiences (7), disaster exposure (7), culture (6), individual health and functional status (6), personal characteristics, beliefs, and behaviours (4), marital status (4), race/ethnicity (3), critical care systems (3), and living arrangements (1).

2.5.4.6.1 Social support.

In all of the 11 response and recovery studies whereby social support was examined, researchers found that it was one of the main drivers of older people’s resilience. In five studies, researchers reported that low social support hindered resilience, as it was a significant predictor of post-disaster mental health outcomes, such as Post-Traumatic Stress Disorder (PTSD), Depression, and General Anxiety Disorder (GAD) (Acierno, Ruggiero, Kilpatrick, Resnick, & Galea, 2006; Bei et al., 2013; Cherry et al., 2015; Hikichi, Aida, Tsuboya, Kondo, & Kawachi, 2016; Seplaki, Goldman, Weinstein, & Lin, 2006). For instance, Bei and colleagues (2013) found, in their quantitative study that examined post-disaster mental health outcomes of 274 older people (60+), that participants who received only government support reported higher levels of PTSD than those who received support from only family, friends, and neighbours.

In four studies, researchers showed that social support bolstered resilience by acting as a valuable resource for older people during the response and recovery phase (Bockie & Miller,
2016; Claver, Dobalian, Fickel, Ricci, & Mallers, 2013; Lin et al., 2002; Tuohy, Stephens, & Johnston, 2014). For example, in Tuohy and colleagues’ (2014) qualitative study of ten older people’s (65+) post-disaster experiences of the Canterbury earthquakes, social support was found to be one of the three most important themes relevant to older people’s resilience and one of their participants reported how "her family's support enabled her to remain independent in the community, because she could rely on her family to provide practical, emotional, advocacy support in the aftermath of the earthquakes" (p. 200).

Lastly, in two of the studies, researchers found that social support bolstered resilience, as it provided an opportunity for older people to contribute back (Hrostowski & Rehner, 2012; Stanko et al., 2015). For instance, Hrostowski and Rehner (2012) found that “helping the community” was a theme related to the resilience of older survivors (n=18; 65+) of Hurricane Katrina that were interviewed in their qualitative study, whereby “all participants reported experiencing a new sense of commitment and belonging to their communities and a rediscovery of their abilities to make a valuable contribution” (p. 343).

2.5.4.6.2 Age.

In nine of the response and recovery studies, researchers investigated age as a factor associated with older people’s resilience to disaster. It was suggested in five of the studies that older age bolstered resilience. Conversely, age was found to hinder resilience in one study and found to have no significant relationship with resilience in three studies.

Concerning resilience being bolstered by old age, Acierno and colleagues (2006) found in their quantitative study that older people 60+ (n=1130) reported significantly lower symptoms of disaster-related psychopathology than their younger counterparts aged 18 to 59 (n=413) after direct exposure to the 2004 Florida Hurricanes. Also, among the 66 participants, categorized as
middle-aged \((n=20, \text{ ages 45-64})\), older \((n=20, \text{ ages 65-89})\), or oldest-old adults \((n=26, \text{ age 90+})\), in Cherry and colleagues’ (2010) quantitative study of pre- and post-Hurricane Katrina and Rita related psychopathology, the oldest-old were significantly less likely than the younger age groups to experience storm-related deficits in mental and cognitive function and ability. Furthermore, Seplaki and colleagues’ (2006) quantitative examination of 1160 older people’s \((50+)\) depressive symptoms before and after the 1999 Chi-Chi earthquake in Taiwan, found that being 54 to 70 years of age, and female were significantly associated with higher depressive scores related to home damage, while those 70+ were described as ‘fairly resilient,’” whereby psychological consequences related to home damage are “small and not statistically significant” (p. 3129).

In several studies, researchers used the burden hypothesis to explain why older people were more resilient than their younger counterparts (specifically the middle-aged group). Cherry and colleagues (2011) explained that the burden hypothesis:

holds that middle-aged persons will be more affected than other age groups because of their role as the economic provider with social and financial responsibilities for their families. For some, dual responsibilities associated with caring for dependent children and elderly parents may double the perceived burden. (p. 189)

In Adams, Kaufman, van Hattum, and Moody’s (2011) qualitative study they found that older people \((n=58; \text{ ages 65+})\) were better able to cope by drawing from their previous experiences with challenges or traumatic events, while middle-aged participants \((n=105; \text{ ages 40-64})\) reported “high levels of stress and feelings as if they might ‘break’ from the frustrations of failed recovery” (p. 260). The researchers suggested that the high levels of stress reported by the sandwich generation, were a consequence of the burden of the “multiple tasks of rebuilding,
finding jobs and working and caring for children and parents simultaneously” (p. 262). The burden hypothesis was illustrated by one study participant, who three years post-Hurricane Katrina and Rita:

was still trying to salvage and rebuild his own home while trying to fight legal battles with insurance companies and the Louisiana Road Home program for both his own and the destroyed home of his 70-year-old mother, and while trying to keep his business going. (p. 260)

Similarly, Cherry and colleagues’ (2011) survey of adults \( n=72 \) affected by Hurricane Katrina and Rita categorized into four age groups: 13 younger adults (26–44), 17 middle-aged adults (47–64), 19 older adults (65-89), and 23 oldest-old adults (90+), found that although they returned to their pre-disaster levels 6-14 months post-disaster, middle-aged adults “reported more storm-related stressors and greater levels of stress than older adults at both waves of testing” (p. 188).

In contrast, Stanko and colleagues’ (2015) found, in their qualitative study of adults \( n=66 \) affected by Hurricane Katrina and Rita, categorized as 20 middle-aged (45-64), 20 older (65-89), and 26 oldest-old adults (90+), that the middle-aged cohort adhered to more benefit-finding (or finding the silver linings) of disasters than either the older or the oldest-old adults. Thus, older age was not a factor that bolstered resilience.

Lastly, three studies found that age was not significantly associated with measures of psychopathology (Hikichi et al., 2016; Knight et al., 2000; Kohn et al., 2005). For example, Knight, Gatz, Heller, and Bengtson’s (2000) suggested in their cross-sectional comparison of the emotional responses of 166 adults, categorized as middle-aged \( n=51 \), young-old \( n=75 \), and old-old \( n=40 \), to the 1994 Northridge earthquake in Los
Angeles, that rather than age, pre-disaster mental health was the biggest determining factor of post-disaster mental health.

2.5.4.6.3 Income/financial capacity.

In eight of the response and recovery studies, researchers examined how income/financial capacity was relevant to older people’s resilience to disasters, whereby it was found in six studies that lower income/financial capacity hindered it, while in two studies it was not found there was no significant association. Unlike younger adults, Acierno and colleagues (2006) found that older people’s income predicted adverse post-disaster mental health outcomes. The researchers attributed the difference to:

A relatively larger proportion of elders who are on fixed incomes and may not have the capacity to increase their earnings to manage unexpected post-disaster expenses. This may lead to a sense of hopelessness and related reactions of anxiety and depression. (p. 1058)

Seplaki and colleagues (2006) corroborated this finding in their study. Using pre- and post-test assessments of depression, they reported that being female and having lower income/financial capacity was significantly associated with higher depressive scores post-disaster exposure. In Kohn, Levav, Garcia, Machuca, and Tamashiro’s (2005) quantitative study of 103 older people (60+) affected by the 1998 Hurricane Mitch in the Honduras, they found that lower income (specifically neighbourhood-based income) was significantly associated with higher scores on six of the seven measures of psychopathology. Other researchers found that being on a fixed and limited income challenged older people in a disaster context. For instance, in Henderson, Roberto, and Kamo's (2009) qualitative study of 122 displaced older people (60+), the majority (78%) of their participants made USD 16,600 or less and drew their income from social
assistance and retirement funds rather than employment. Many of the older people in their study who were relocated or displaced reported experiencing delays in receiving their social assistance cheques, which then contributed to their financial stress during and post-disaster.

Disasters also changed older people’s income/financial capacity whose type of employment/livelihood source was affected by the disaster. For instance, Ardalan and colleagues' found in their (2010) qualitative study of 56 older people (65+) that the 2003 Bam earthquake in Iran changed the socioeconomic status of the participants who had previously relied on local citrus fruit orchards and palm groves production, which was destroyed by the disaster. Similarly, Cherry and colleagues (2015) found, in both their bivariate and multivariate models that examined psychological outcomes of 219 residents (mean age=60.2) in a disaster-affected community, that low-income and being a coastal fisher were significant predictors of symptoms of depression. Income/financial capacity was not significantly associated with disaster-related changes in mental and physical health in the study by Pietrzak, Southwick, Tracy, Galea, and Norris’ (2012), a cross-sectional survey of 193 older people (60+) affected by the 2008 Hurricane Ike in the US, nor with PTSD in the study by Hikichi and colleagues (2016).

2.5.4.6.4 Gender.

Gender was examined in relation to resilience in eight response and recovery studies. In six of the studies a gender influence was reported (favouring males over females), while in two of the studies gender had not significant relationship with resilience. In five studies, researchers found that females had significantly higher disaster-related stress and negative psychological outcomes (e.g., PTSD) than males (Acierno et al., 2006; Hikichi et al., 2016; Kohn et al., 2005; Seplaki et al., 2006; Silva Brown et al., 2010). For instance, Silva Brown and colleagues' (2010) found in their quantitative study that females \( n=31, M=77.2 \) years, \( SD=15.7 \) years, age range 49-
96 years) had significantly lower mental health than males ($n=28$ males, $M=73.3$ years, $SD=17.2$ years, age range 47-93 years), pre- and post- Hurricane Katrina and Rita. Albeit, the researchers cautioned that there was a potential gender-based response bias that existed, whereby women tend to report more mental health issues/problems than men. Only Lin and colleagues (2002) found, in their mixed-method study of 368 older people (65+) affected by the 1999 Chi-Chi earthquake, that being female was significantly associated with higher negative score changes in physical capacity. In contrast, in two studies (Bei et al., 2013; Knight et al., 2000) researchers found no association between gender and post-disaster mental health outcomes (e.g., depression scores).

2.5.4.6.5 Prior experiences with disasters.

In seven response and recovery studies researchers investigated the relevancy of prior experiences to resilience. Specifically, all the studies focused on the inoculation hypothesis, which is the idea that previous experiences of trauma or challenging circumstances, such as disasters, inoculate individuals against the strong emotional reactions that are linked to adverse mental health outcomes (Adams et al., 2011). Under this hypothesis, it is recognized that age is frequently correlated with greater disaster experience (Cherry et al., 2015). In six of the studies, researchers found evidence to support the hypothesis (suggesting that prior experiences of disasters bolstered resilience), while in one study it was found to be not significant.

Shrira, Palgi, Hamama-Raz, Goodwin, and Ben-Ezra (2014) corroborated the inoculation hypothesis in their study of the disaster-related PTSD symptoms of 1000 participants who experienced the 2001 WTC terrorist attack and 2012 Hurricane Sandy. They found that “previous high degree of exposures to the WTC terrorist attack [among older people were] related to weaker effects of current exposure to Hurricane Katrina” (p. 374). In contrast among
younger adults, high degree of exposures to the WTC terrorist attack had a stronger effect on PTSD symptoms, as a consequence of exposure to Hurricane Sandy. The inoculation hypothesis was further supported by their finding that older people who had low levels of previous experience did not produce a similar pattern of resilience. Ferraro (2003) found, in his quantitative study, throughout three testing times (1997, 1998, and 2000) after the 1997 floods in Grand Forks, US, no significant differences in measures of self-rated health, number of medications taken, and cognitive ability among the 37 older people (65+) who reported extensive experiences with floods and flooding. Similarly, in Adams and colleagues’ (2011) study with Hurricane Katrina survivors, middle-aged participants had more trouble coping with the disaster, while older people “drew on a repertoire of comparative life traumas and challenges” in coping with the disaster (p. 258).

Although, six of the studies found either direct or indirect evidence to support the inoculation hypothesis, researchers pointed to additional considerations when determining “how to utilize older adults with disaster experience as a resource in disaster recovery efforts while mitigating their own negative reactions to the event” (Pietrzak et al., 2012, p. 102). For instance, Knight and colleagues (2000) found that “prior earthquake experiences provided some inoculation against general effects on mental health but not for emotional responses specific to the earthquake” (p. 633). On the other hand, although the effects were modest, Pietrzak and colleagues (2012) found that prior exposures were negatively associated with Ike-related PTSD symptoms but positively associated with depressive symptoms, which suggested that “prior disaster exposure seems to increase vulnerability to depressive symptoms in the aftermath of a newly experienced disaster” (p. 102). Also, Cherry and colleagues (2015) concluded that “the current environmental factors related to the more recent technological disasters increase
vulnerability and may override the influence of previous trauma” (p. 440). The findings in Acierno and colleagues’ (2006) study diverged from that of the six studies above and demonstrated that prior traumatic events were significantly associated with higher symptoms of psychopathology, thus hindered resilience rather than promoted it.

2.5.4.6.6 Disaster exposure.

In seven of the response and recovery studies, researchers included disaster exposure as a variable of interest. All the studies were quantitative, and while the measure(s) used to examine disaster exposure was slightly different in each, they involved common items (e.g., the number of days people was displaced from their home, financial losses incurred, damage to properties, and injury to selves or family/friends). In six of the studies disaster exposure was found to be a main driver of older people’s resilience, while in one study it was not.

A higher level of disaster exposure was found to hinder older people’s resilience, in six of the studies, as it was a significant predictor of post-disaster mental health outcomes (Acierno et al., 2006; Bei et al., 2013; Hikichi et al., 2016; Kohn et al., 2005; Pietrzak et al., 2012; Seplaki et al., 2006). For example, Acierno and colleagues (2006) found in their study, that higher levels of disaster exposure were significantly associated with symptoms of PTSD, GAD, and depression in both the bivariate and multivariate models. Furthermore, the researchers conducted regression analyses to tease out universal and unique risk factors for the two age groups and found that disaster exposure level was significant to the older age group and not with the younger in predicting mental health outcomes. In contrast to the five studies, Knight and colleagues (2000) found in their study that "neither neighbourhood damage nor personal damage exposure affected depressed mood” (p. 631).

2.5.4.6.7 Culture.
In six of the response and recovery studies, researchers investigated the role of culture; Five of which were focused on the role of spirituality/religiosity and one on sociocultural norms. In one study, spirituality/religiosity was found to bolster older people’s resilience, in three of the studies it was found to hinder it, and in one study there were mixed results. In the study whereby socio-cultural norms were investigated, researchers found that it was a main driver of resilience (Ardalan et al., 2010).

Henderson and colleagues' (2009) found that spirituality/religiosity played a psychotherapeutic role in the post-disaster context. They found that participants used both passive and active spiritual strategies, defined as "praying, meditation, singing songs and readings the Bible" to cope (p. 65). Participation in spiritual events and activities, "such as attending church or mass, Bible studies, and prayer services," were suggested by the researchers to be more passive spiritual activities as they helped to divert the participants' attention from the disaster (p. 65). Active spiritual strategies included the participants narrating their realities and situations more positively by evoking their spiritual beliefs and religious convictions. The researchers offered the following participant's statement as an example of an active spiritual vantage point: "Oh it made us closer to God, that's the first thing. We appreciate life more, and material things don't mean anything anymore" (p. 65).

In contrast, in three studies researchers indicated that spirituality/religion was associated with more negative coping strategies and mental health outcomes, and thus hindered older people’s resilience to disasters. For example, Silva Brown and colleagues (2010) found negative correlations among "religious practices, religious coping, and select measures of physical functioning," which diverged from the existing research that suggested increased religiosity is associated with improved physical functioning and health (p. 1008). Furthermore, Wang, Wang,
and Han (2012) suggested, in their study, which examined the mental health of older Buddhists ($n=230$; ages 55+) after the Wenchuan earthquake, that the disconnect and conflict between the participants' religious beliefs and the realities of the disaster led to lower mental health scores. The majority of Buddhists in their study believed that the "Divinity could protect them from disaster and disease or make them rich, but the incredible damage of the earthquake conflicted with this belief" (p. 847). Cherry and colleagues (2015) also found that non-organizational religiosity, which included more "solitary forms of religious expression" was a significant predictor of PTSD, and that "more frequent participation in non-organizational behaviors was associated with a heightened risk of PTSD" (p. 430). Stanko and colleagues (2015) reported that although the majority of the participants in their study shared that five years after surviving Hurricane Katrina and Rita, “returning to religion” was a “silver lining” (p. 573), some participants (many from the oldest-old cohort) asserted that the “hurricanes were God’s way of punishing and purifying New Orleans,” thus highlighted a more negative use of spirituality/religion (p. 567).

In their study, Ardalan and colleagues' (2010) highlighted how socio-cultural norms influenced resilience, whereby many of the participants had not actively sought help during and after the Bam earthquake in Iran due to cultural reasons. Participants reported that the way in which disaster assistance was provided had affronted their dignity and their role as a respected elder in the community was not considered. The researchers suggested that "the direct and indirect impacts of a disaster can change a respected old[er] person to someone who is dispensable in the harsh environment of survival and can lead to proliferating mental and spiritual hurts" (p. 18).

2.5.4.6.8 Individual health and functional status.
Of the six response and recovery studies where researchers examined individual health and functional status, it was found as a main driver of resilience, whereby lower conditions hindered resilience. In their study, Ardalan and colleagues’ (2010) illustrated how older people with diabetes who had lost their medication during the disaster and whose special dietary needs were not considered in the food delivered to them, experienced increased health risks. Similarly, in three other studies it was found that pre-existing mental and physical health problems were significantly associated with post-disaster mental health outcomes (Acierno et al., 2006; Kohn et al., 2005; Hikichi et al., 2016).

In two studies, researchers illustrated how evacuation procedures were exclusionary to less physically or cognitively able older people (Claver et al., 2013; Tuohy et al., 2014). For instance, Tuohy and colleagues found in their study that the "Drop, Cover, Hold", a prominent earthquake message that was given to New Zealand residents, advised citizens to "drop low to the ground and if possible take cover under a table, and hold on during an earthquake" (p. 197) were deemed insensitive to less physically able older people. As a 72-years old male participant explained:

It's all very well saying go under the table if you can't bend down to get under, or if you get down and you can't get up...it's all very well having these things ['Drop, Cover, Hold' message] but a lot of old people can't do that...they are only put out for those that are able...you know they keep advertising on what to do, but there is nothing around the elderly and frail.... they are not putting out an alternative, and how does that make the old people feel? (p. 197)

Their study highlighted that even for those who do not have pre-existing mobility issues/limitations, the implications of an injury during a disaster, such as a fall could challenge
an older person’s resilience. Consequently, many of their participants prioritized preventing personal injury during the earthquakes, because physical status was equated to their independence.

2.5.4.6.9 Personal characteristics, beliefs, and behaviours.

In four response and recovery studies, researchers examined personal characteristics, beliefs, and behaviours, as it related to older people’s resilience within the context of disasters, and all found that this broad category was a main driver of resilience. For instance, in three of the studies the focus was to understand individual differences in psychological behaviours of older people following disasters, with a particular focus on the types of coping strategies they used. In these studies, coping responses were categorized as either adaptive (or positive) or maladaptive (or negative) (Bei et al., 2013; Henderson et al., 2015; Stanko et al., 2015). Although both strategies aimed to reduce stress, adaptive coping strategies were more effective in the long term and contributed to a positive set of coping skills that individuals could use in the face of future disasters (Henderson et al., 2015). In contrast, the effectiveness of maladaptive coping strategies was short-term as such strategies would merely address the symptoms of stress rather than its roots.

Adaptive coping strategies used by participants that enhanced resilience included: i) positive attitudes (e.g., thoughts of gratitude and hopefulness), ii) modified thinking/positive reframing (e.g., thoughts of acceptance and moving on), iii) spirituality (e.g., meditation, praying, and attending mass), iv) planning, and v) benefit finding (Bei et al., 2013; Henderson et al., 2015; Stanko et al., 2015). Maladaptive coping strategies used by participants that hindered resilience involved staying busy/distraction (e.g., engaging in distractive thoughts or activities) and venting.
Only Hrostwoski and Rehner (2012) examined self-efficacy, which refers to an individual’s self-perceived ability to affect situations. They found that it was a driver of resilience during the response and recovery stages. Participants in their study described their “ability to handle what comes their way” as a trait of resilience (p. 346). This sense of an “internal locus of control” and “independence of thought and behavior” meant, per the researchers, that the participants had a high level of self-efficacy, which led to a high level of resilience (p. 345). The researchers suggested that practitioners who work with older people in the context of disasters need to foster self-efficacy among older people to build resilience.

Lastly, the role of stoicism, which “refers to a tendency to be unaffected by challenges and to suppress emotion,” in disaster-related psychopathology was investigated by Bei and colleagues' (2013) and found to hinder resilience (p. 933). In their study, higher scores of stoicism, were found to be positively correlated with post-flood depressive symptoms and negatively correlated with self-reported mental health, which suggested that stoicism, “rather than being a source of strength and resilience, could potentially be maladaptive, and may lead people to suppress emotions and internalise negative thoughts and feelings, making them more vulnerable to symptoms of depression” (p. 1000).

2.5.4.6.10 Marital status.

In four response and recovery studies included in this review, researchers investigated how marital status impacted older people’s resilience to disasters. Marital status was found to be a relevant demographic in three of these studies and not in one. Kohn and colleagues' (2005) reported in their study that not being married/living with a partner was significantly associated with one measure of psychopathology. Similarly, Lin and colleagues' (2002) found that not being married/living with a partner was significantly associated with larger drops in physical capacity.
scores from pre- to post-disaster. Also, Pietrzak and colleagues (2012) stated in their study, that being married/living with a partner was significantly negatively associated with Ike-related depressive symptoms. In contrast, marital status was not significantly related to levels of depressive symptoms post-disaster in the study by Seplaki and colleagues (2006).

2.5.4.6.11 Race/ethnicity.

Race/ethnicity was considered a variable of interest in understanding older people’s resilience to disasters, in three response and recovery studies included in the review. Only in one of the studies, did researchers find that race/ethnicity was linked to resilience, while this association was not substantiated in two studies. Race/ethnicity was found to be significantly associated with disaster-related symptoms of psychopathology among older people in Acierno and colleagues' (2006) study, whereby higher risk was linked to the Hispanic ethnicity. In contrast, it was found in two studies (Pietrzak et al., 2012; Seplaki et al., 2006) that race/ethnicity was not relevant to disaster-related mental health and well-being (e.g., as measured by disaster-related depressive symptoms and disaster-related PTSD symptoms).

2.5.4.6.12 Critical care systems.

In three response and recovery studies, researchers examined critical care systems and found that disruptions to such systems hindered older people’s resilience. In Henderson and colleagues' (2009) study, participants expressed that disruptions in public transportation, communication (e.g., unable to use cell or landline phone), and economic services (e.g., distribution of Social Security cheques) led to significant challenges for them during the response and recovery phase. Participants in Adams and colleagues’ (2011) study, reported challenges to accessing health care services and medications even one year after Hurricane
Katrina. Participants with chronic conditions reported not receiving treatment for extended periods of time, inability to receive regular check-ups, and inability to obtain medications.

The limited number of clinical services, auxiliary services, and pharmacies paired with no public transportation contributed to the inaccessibility of health care services. It was also highlighted in these studies how evacuation centres and temporary housing shelters were ill-equipped to meet the health care needs of older people with health conditions. Adams and colleagues (2011) concluded that "the lack of government infrastructure for caring for evacuees, particularly the elderly . . . was a hallmark of Hurricane Katrina" (p. 254). The lack of appropriate care and health services for older people in long-term care homes, especially for those who have dementia, severe physical and cognitive impairments, and who was very sick was evident in the evacuation centres. Older people with chronic health conditions made up a majority of the Hurricane Katrina causalities that occurred after the disaster due to the disruptions or lack of health care services to support their special needs. Similarly, Hikichi and colleagues (2016) found in their quantitative study that examined post-disaster mental health outcomes of older people \((n=3,567; 65+)\) who were affected by the tsunami in Tohoku, Japan, that disruptions in health care services which led to limited access to medicines and psychiatry services post-disaster was significantly associated with symptoms of PTSD.

2.5.4.6.13 Living arrangements.

The impact of living arrangements on older people’s resilience was investigated in one of the response and recovery studies, and it was found to be relevant. Through the qualitative interviews with administrators and service providers \((n=13)\) researchers found that evacuation resources and techniques were not appropriate for nursing home residents, who were frail and had cognitive impairments (Claver et al., 2013).
Table 6 and 7 present the key findings relevant to the individual and environmental factors examined in the response and recovery studies.

### 2.5.5 Discussion.

There were several key findings relevant to older people’s resilience throughout the disaster management cycle (mitigation, preparedness, response, and recovery) that inform future research, policy, and practice in this area, that this literature review highlighted. Firstly, the focus of many of studies were on understanding resilience in a post-disaster context (response and recovery) and relatively fewer in the pre-disaster context (mitigation and preparedness). This finding is problematic as pre-impact (e.g., physical and social infrastructure) and disaster-specific conditions (e.g., disaster exposure) both influence older people’s resilience, and the former should be given priority for disaster management to be preventative rather than reactive (Lindell, 2013). For mitigation and preparedness efforts to be prioritized in policy and practice, there needs to be a sufficient evidence base. Thus, in future research considerations should be made on exploring older people's resilience during non-disaster times. Specifically, more mitigation studies are needed to understand the connections between resilience within the context of disasters and wider (and longer-term) development initiatives (Valdes, 2009). If disasters magnify non-existent or inadequate development initiatives, then the focus of future research should be on investigating the links between such initiatives (e.g., universal pension, employment/livelihood programs, and social programs for older people) and older people’s resilience within the context of disasters.

Secondly, as older people’s resilience within the context of disasters was influenced by intersecting factors and processes, it was noteworthy that most of the studies examined three or more drivers of resilience. However, these were primarily at the individual level, although Ungar
(2013) cautioned that environmental factors and processes are what drive resource holders (e.g., policy makers, funders, and practitioners) to take action. In future research the examination of intersecting factors and processes and prioritization of investigations that include environmental drivers of resilience should be continued. For instance, only in four studies did researchers focus on how critical care systems are linked to older people’s resilience, and all found that disruptions of or inadequate systems adversely affected resilience. While these findings were insightful, additional research is needed to inform future policy and practice. For instance, researchers should explore how critical care systems (e.g., public health or economic services) can affect older people’s resilience in the mitigation, preparedness, response, and recovery phase, is needed to understand how we can enhance such systems to bolster resilience rather than hinder it.

Thirdly, while there was evidence to suggest that social support and individual health and functional statuses were primary factors and processes that influenced older people's resilience in the preparedness, response, and recovery phases, more research is needed specifically in the mitigation phase to determine the main drivers of resilience throughout the disaster management cycle.

The finding that social support enhanced older people’s resilience in both the pre- and post-disaster context was important as current disaster discourse and practice is dominated by a focus on physical infrastructure, with little emphasis on social infrastructure (Aldrich, 2012). This absence is concerning as Aldrich (2012) recommended that social support should be nurtured as "social networks and connections form the core engine of recovery after even the most devastating of events" (p. viii). Enhancing social support networks and connections is a focus of the discipline and practice of community development (Aldrich, 2012). In future research and practice on older people’s resilience within the context of disasters there needs to be
an integration of such learnings found during peace times/non-disaster times, and investigation, for example, of how older people tap into existing social support networks and connections during and after disasters, and what are ways in which older people’s social support networks and connections can be bolstered pre-disaster?

It was accentuated in our review of the literature that older people’s health and functional ability were important not only in how they would respond and recover from a disaster but also in how they would prepare as well. Policy and practitioners are encouraged by this finding to focus on and adapt to the diverse health needs and functional abilities of older people. Furthermore, individual health and functional statuses are intertwined with health care systems, which is an environmental level factor and process mentioned earlier that required more attention in the literature. If low health and functional statuses hinders older people's resilience, then it is important to investigate the gaps in health care systems, globally, that ignore the needs of this cohort group and what can be done regarding disaster management to enhance their resilience.

Fourthly, the findings related to gender warrant further research. It can be suggested from the evidence that in the pre-disaster phase older people’s disaster preparedness is not significantly influenced by gender. However, there was strong evidence that illustrated how the female gender was significantly associated with less favourable mental health and well-being in the post-disaster stages (response and recovery). Future research is needed to understand this discrepancy. For instance, could this finding be attributed to unequal gender roles and responsibilities in the response and recovery phase of disaster or gender-based biases in reporting post-disaster mental health issues?

Fifthly, while there was sufficient evidence to suggest that the following were main drivers of older people’s resilience: prior experiences, income/financial capacity, disaster
exposure, and culture, during the response and recovery phase, there could be more studies that substantiate such evidence. Furthermore, it is also necessary to establish the significance of these factors and processes in the pre-disaster context.

Findings from our review lend further support to the inoculation hypothesis, that is prior experiences with disasters help inoculate older people against less favourable post-disaster related outcomes (e.g., poor mental health and well-being). It can be suggested from this finding that older people with prior experiences of disasters can be a resource for their peers and the community in the disaster recovery and rebuilding process. In fact, in practice older people have been mobilized to provide psychosocial support in the aftermath of a disaster (e.g., HAI, 2014). However, the mobilization of older people as resources in disaster conditions must consider self-care processes and resilience building activities for these older people. Following the work of Pietrzak and colleagues (2012) and Knight and colleagues (2000), further research is needed to uncover the nuances and complexity of the inoculation hypothesis.

Through the post-disaster studies, it was revealed that older people also face less favourable outcomes (e.g., less favourable mental health outcomes and less capacity to rebuild) if they were on a fixed and low-income. It can be suggested from this finding that this sub-cohort of older people is an important group to focus on throughout all stages of a disaster. During pre-disaster times, for example, research and practice could focus on examining the source(s) of income that such older people rely on and what opportunities exist for older people to increase their source(s) of income. During and after a disaster, the focus of research and practice could be on how such income sources are challenged and what interventions could assist a timely transition from response to recovery.
The finding that disaster exposure was a main driver of resilience in the post-disaster context makes sense, as the greater exposure to a hazard most likely would lead to more adverse physical and psychological outcomes. In future research there should be a focus on investigating other factors and processes when controlling for disaster exposure. For example, among a cohort of older people who experienced relatively the same disaster impacts, what are the main factors and processes that bolstered their resilience?

Regarding culture, while it was found in all the studies, where culture was examined, that religiosity/spirituality mattered in the response and recovery phases, the findings were mixed on how it mattered. There was evidence that both supported and challenged the assumption that spirituality/religiosity was linked to more favourable post-disaster outcomes. Future studies need to be more nuanced and researchers need to investigate the array of spiritual/religious beliefs and activities that older people may utilize in the post-disaster context and how such specific efforts either hinder or bolster resilience.

Finally, there was not enough evidence to understand the relevance of age, living arrangements, marital status, race/ethnicity, personal characteristics, belief and behaviours, critical care systems, and risk communication for older people’s resilience in the pre- and post-disaster context. Regarding age, it was important to remember that chronological age alone does little to inform future DRR policy and practice. There is a need to consider the intersecting factors that make age relevant to older people’s resilience within the context of disasters. Researchers should continue to explore how such factors and processes interact with age to bolster or hinder resilience.

As for living arrangements, future research and practice need to centre on older people who live independently in the community, and specifically older people that live alone and are
socially isolated. This sub-group is particularly important considering there is an increase (and projected continued increase) of older people seeking to "age in place" or live independently in the community as long as possible. For example, in Australia, over 90% of older people live independently in the community (Bockie & Miller, 2016). In New Zealand, it is expected that 90% of older people 65 years of age and older live independently in the community, of which 28% are expected to be living alone by 2021 (Tuohy & Stephens, 2011). Even in countries where intergenerational families are traditional, living arrangements are shifting. In Japan, for example, in 1960, 80% of older people were living with a child, but in 2010 that percentage dropped to 41% (HAI, 2013b). Despite this trend towards independent living among older people, there is a noted gap in the literature concerning this population (Bockie & Miller, 2016).

Regarding another demographic factor, marital status, it was shown only in three studies that not being married/living with a partner was linked to less favourable disaster-related outcomes. There needs to be more researchers exploring this link and identifying reasons why such a status leads to less favourable outcomes.

Although race/ethnicity was found in three studies to be linked to older people's resilience within the context of disasters, all of these studies were conducted in the US, and race/ethnicity was categorized as either white/black or white/Hispanic. Not only is there a need for more research in which race/ethnicity-related differences are explored, but there is a need for such research to be in different contexts and countries.

The few studies where researchers investigated the personal characteristics, beliefs, and behaviours relevancy to older people’s resilience within the context of disasters, shed light to some unique findings that could be further explored in future research and practice. For instance, differentiating between adaptive and maladaptive coping strategies utilized by older people
requires further investigation. Also, the focus of future research and practice could be on how interventions can be developed to facilitate positive coping strategies.

The two environmental level factors and processes that require more attention in both the pre- and post-disaster context are critical care systems and risk communication. The former has already been discussed. In term of risk communication, while it was found to influence older people’s resilience to disaster in all the studies where it was investigated, only in five studies did researchers consider how such processes enhanced or hindered resilience. The focus of future research and practice should be on assessing and developing age-friendly risk communication and specifically from the older people’s perspective.

When interpreting the findings of our review, there were several limitations that need to be considered. Firstly, despite the comprehensive search strategy used in our scoping review, only 33 original research studies were located. The lack of original research on older people’s resilience within the context of disasters hindered a comprehensive assessment of this phenomenon.

Secondly, only English language research articles were included in our review; this is likely related to the fact that the majority of studies were conducted within the context of high-income (or developed) countries and specifically within a Western or Euro-centric context. Thus, the findings of our review are most relevant to such contexts. It would be important to examine research conducted within another context, particularly in developing countries which are more vulnerable to climate-related disasters (Kwan & Walsh, 2015).

Thirdly, since all methodologies were included in our review, the authors had to make decisions on what data to extract from the findings of each study. Invariably some of the complexity of the findings of the individual studies may have been lost (e.g., the thickness and
richness of qualitative findings) (Weeks & Strudsholm, 2008). Lastly, the studies in the review defined older people (and sub-categories of older people) differently, making inter-study comparisons difficult.

2.5.6 Conclusion.

Rapidly ageing populations are a global phenomenon (UN, 2013). It is occurring within the projected increase in the intensity and frequency of disasters due to climate change, globalization, rapid urbanization, and environmental degradation (UN General Assembly, 2015). It can be suggested from the findings of our review that older people's resilience within the context of disasters is a complex, multi-dimensional, and dynamic phenomenon that occurs within individual and environmental factors and processes. Furthermore, such factors and processes can become more significant or less throughout the different phases of the disaster management cycle. Overall a stronger research agenda on older people’s resilience within the context of disasters is necessary, without such evidence older people may continue to experience disproportionate disaster outcomes.

I now transition to review the literature on old age poverty, and section 2.6 represents the in-press manuscript, *Old Age Poverty: A Scoping Review of the Literature*. In the following sections, I provided the background context on why up-to-date knowledge on this phenomenon was needed, the research questions that guided the review, the methods used to conduct the review, the results that highlighted the key findings, and a discussion that pointed to knowledge gaps and areas for future research.
2.6 Old Age Poverty: A Scoping Review of the Literature

2.6.1 Introduction.

Worldwide populations are ageing. According to the United Nations Department of Economic and Social Affairs (UNDESA, 2015), in 2015 one in eight people worldwide was aged 60 years or over globally. They projected that by 2030, for the first time in human history, the older population will outnumber children (aged 0 to 9 years), and by 2050 will exceed the population of adolescents and youth (aged 10 to 14 years). Declining mortality and fertility rates are the major causes of this unprecedented demographic shift in age compositions.

Several characteristics of global population ageing are worth highlighting. For instance, although nearly all societies are experiencing (or will experience) population aging, the fastest rates of population aging are occurring in developing countries, whereby, from 2000 to 2015, the number of older persons in such regions grew from 376 to 602 million – “an increase of 60 per cent – and it is projected to grow by 71 per cent [an approximate population of 1 billion older persons] between 2015 and 2030” (UNDESA, 2015, p. 9). Also, population aging is occurring at significant rates even within the older demographic group, whereby the number of older people 80 years and older is expected to nearly triple (from 2015 at 125 million people) to 434 million by 2050 (UNDESA, 2015). Further, as women usually live longer than men (an average of 4.5 years), in almost every country the older population is predominately women; women comprised 54 percent and 61 percent of the global population aged 60 years or over and aged 80 years or over, respectively.

Population aging is a major global issue of the 21st Century, offering societal opportunities and challenges (United Nations Population Fund [UNFPA] and HelpAge International [HAI], 2012). Older people can (and do) play contributory roles (economically,
socially, and culturally) in societies when afforded the chance to do so. However, poverty and social exclusion represent two of the most significant barriers for older people to both “contribute to development and share in its benefits” (UNFPA & HAI, 2012, p. 12). An enriched understanding of and discourse on old age poverty, then, is pertinent and pressing in the context of global aging.

Within development discourse, the eradication of poverty is a key priority for policymakers worldwide. For example, the newly proposed Sustainable Development Goals (SDGs), a vital component of the post-2015 global development framework that expands on and replaces the Millennium Development Goals, iterates “poverty eradication is the greatest global challenge facing the world today” (United Nations General Assembly, 2014, p. 3). Of the 17 proposed goals, goal number one is to "end poverty in all its forms everywhere" (p. 6). However, the identification and discussion of old age poverty within this directive are not explicit, and literature with a specific focus on old age poverty is minimal (Oris, Gabriel, Ritschard, & Kliegel, 2017). The trends in population ageing require concerted efforts to understand and address the relevant age-dimensions of poverty, especially those in older adulthood. A strong knowledge base regarding old age poverty is critical to fully actualize the opportunities and address key challenges of population aging. Research has an important role to play to this end, by building a robust empirical base to inform age-inclusive and appropriate poverty alleviation policies, programs, and practices.

The purpose of this review was to synthesize the knowledge base on old age poverty by mapping out the current empirical research on old age poverty. Specifically, we sought to summarize how the studies’ conceptualized old age poverty and identify study objective(s) and
key finding(s). Following this process, we delineated the knowledge gaps within current research and offered recommendations for future research.

2.6.2 Methods.

To critically review the literature on old age poverty, we utilized a scoping review methodology, which is a systematic way of determining “the extent, range and nature of research activity” (Arksey & O’Malley, 2005, p. 21). Specifically, we utilized Arksey and O'Malley's (2005) methodological framework for conducting our review. The main steps in the framework include determining the research question(s), identifying the relevant studies, selecting the studies to be included, charting the data, and then collating, summarizing, and reporting the results. The optional sixth step, which was not undertaken for this review, entails engaging stakeholders to contribute to the review.

We used a scoping review methodology, because (unlike systematic literature reviews) it does not exclude studies based on research design (Dijikers, 2015). For this review, we wanted to gain an overarching view of the evidence-based knowledge on old age poverty, rather than focusing on the findings of a specific dimension of the phenomenon.

2.6.3 Data sources, search strategy, and eligibility criteria.

A literature search was conducted in October 2017 in three databases: Abstracts in Social Gerontology, Social Services Abstracts, and Social Work Abstracts. The key terms older persons and poverty (and their synonyms) were searched in the abstracts. Inclusion criteria included: peer-reviewed, empirical research, published in the last ten years (2007-2017), written in English, and with available links to full-text articles. The search resulted in 1441 articles, once duplicates were removed, and abstracts were scanned for relevancy, 56 articles remained for a full review. Figure 2 shows the search history and results for our scoping review.
2.6.4 Data extraction.

We extracted the data using three different excel spreadsheets. The first contained descriptive and methodological characteristics of each study and included: author(s)' name(s), year of publication, the location of study, methodology (quantitative, qualitative, or mixed), and sample (which included sample size and age of participants). The second spreadsheet included extracted quotes and statements describing the conceptualization of old age poverty, and the final spreadsheet contained the main objective(s) and key finding(s) of the study.

2.6.5 Results.

2.6.5.1 Descriptive and methodological characteristics.

Table 8 presents the descriptive and methodological characteristics of each study.

2.6.5.1.1 Location.

Thirty-five of the articles in the review were single-country studies that focused on examining old age poverty at the national level. Six articles investigated the phenomenon in two
countries or more, thus offering cross-national comparisons. The remaining 14 were studies exploring old age poverty at more of a local level, such as only rural regions of a country (e.g., rural China), a state or province (e.g., Wisconsin, US or Chai Nat province, Thailand), a city (e.g., Detroit, USA), or even communities or areas within a city (e.g., Metro Vancouver, Canada).

The countries being represented in the studies can be categorized as high, upper-middle, lower-middle, or low-income countries (World Bank, 2018). A high-income country has gross national income (GNI) per capita of US$12,236 and above. An upper-middle income country has a GNI per capita between US$3,956 and $12,235. A lower-middle income country has a GNI per capita between US$1,006 and $3,955. Lastly, a low-income country has a GNI per capita of US$1,005 or less. Forty-four of the studies were from high-income countries and the majority (n=30) from the US. Six of the studies were conducted in the context of upper-middle-income countries, and included, China, Costa Rica, Lebanon, Peru, and Thailand. Four of the studies explored old age poverty in lower-middle income countries and included India, Kosovo, Nigeria, and Vietnam. One study was conducted in Cambodia, a low-income country. Also, there was one study that examined 15 Sub-Saharan African countries, of which 13 were low-income, and 2 were lower-middle income countries.

2.6.5.1.2 Methodology.

Fifty-one of the studies were based on quantitative research designs, three utilized qualitative approaches, and two studies employed mixed methods. All the quantitative studies utilized cross-sectional surveys. Most (n=46) utilized secondary data sets (e.g., Luxembourg Income Survey [LIS], US Census, and China Health and Nutrition Survey) and five used cross-sectional surveys developed for the study. Three studies utilized qualitative research designs,
with semi-structured interviews as the data collection method. Onolemhemhen (2009) used a phenomenological qualitative approach, Kietzman et al. (2012) used a grounded theory approach, and Adeyanju et al. (2015) reported a general qualitative research approach that used content analysis. The two mixed methods articles (focus groups and a cross-sectional survey) report on the same study (Ryser & Halseth, 2011a, 2011b), with the first article (2011a) reporting on one dimension of the study using qualitative and quantitative findings and the second article (2011b), outlining quantitative findings on a second dimension.

2.6.5.1.3 Sample size and age.

The sample sizes of the studies can be categorized broadly as large or small. The quantitative cross-sectional studies had relatively large sample sizes (from \(n=160\) to \(n=2,697,000\)). Studies using national secondary data sets were at the mid and higher end range of the sample sizes. Also, the range in sample size among the cross-sectional surveys varied because some studies reported weighted sample size, while others presented the unweighted numbers. The sample sizes of the three qualitative studies were relatively small (\(n=13, 15, \) and 22, respectively). The sample size of the mixed-method study was 277. The age criterion demarking old age in the studies varied: most used the 65+ cut-point (\(n=32\)), or the 60+ (\(n=13\)); four studies each used age 50+ or 55+, two studies used 70+ and one used 75+ as indicators of old age.

2.6.5.2 How was old age poverty conceptualized?

The way in which poverty is defined in the studies can be grouped into four general categories as depicted in Table 9. Most studies (\(n=50\)) defined poverty based on income and consumption measures. Less common was poverty indicators based on assets or wealth measures (\(n=8\)), self-perceived poverty (\(n=6\)), and poverty based on other measures (\(n=6\)). The final
category is the largest (n=36) and includes measures that did not fit easily into the first three groupings. Only 12 studies utilized a multi-dimensional definition of poverty (e.g., used two or more categories to conceptualize poverty).

2.6.5.2.1 Category 1, poverty based on income and consumption measures.

The majority of studies conceptualized poverty via objective indicators, which included income and consumption measures. Often, these two indicators were combined into an income indicator based on a specific income level based on calculations of various costs of living. On the other hand, for studies using a consumption indicator a specific income level was assigned to meet consumption needs.

These conceptualizations of poverty were predominately relative measures. For example, Kim and Cook (2011) used the official poverty line in South Korea to define old age poverty, whereby “an elderly is classified as poor . . . if his or her self-support is lower than a predetermined poverty line . . . . which is equivalent to 3,840 kW for married individuals and 4,800 kW for others” (p. 90). Albeit, some of the studies did utilize absolute measures, such as Lee and Yoon (2011), who defined low income in their study as older persons having an annual income of less than [US]$10,000.

Other studies focused more on consumption expenditures, such as Wallace and et al. (2013) and MacDonald et al. (2010), who conceptualized old age poverty using the Elder Economic Security Standard Index (Elder Index), or some variation of it. The Elder Index conceptualizes old age poverty based on goods and services (e.g., housing costs, food costs, transportation and health care costs) used by the typical older person. The Elder Index is argued to be more reflective of the costs associated with older persons, and a more appropriate measure than national poverty measures based on the general population. For example, older people in the
US have higher health care costs compared to their younger counterparts, where health care costs make up 18 percent of older people’s core expenses as compared to 8 percent for non-older persons (Wallace et al., 2013).

Old age poverty was also defined by some studies (see for example Ryser & Halseth, 2011a, 2011b; Peeters & Wouter, 2015; Wight et al., 2008) as receiving old age welfare benefits. That is, older persons whose income falls below a certain income level (e.g., the Low-Income Cut-Off [LICO] in Canada) and thus eligible to receive certain (cash or non-cash) benefits. While these studies simply measured poverty by identifying whether the participant was a beneficiary of public old-age benefits, it is still based on income and consumption expenditures. Thus, these studies fall under category 1.

2.6.5.2.2 Category 2, poverty based on assets or wealth measures.

Eight studies used an assessment of assets or wealth as an objective indicator of old age poverty. As an example, Rank and Williams (2010) conceptualized old age poverty as both income poverty (falling below the official US poverty line) and asset poverty. The latter they defined as a “household that does not possess a level of assets that would enable them to remain above the official poverty line for three months”; assets included “home equity, savings, checking, stocks, bonds, and so on” (p. 338). Alternatively, in Zimmer’s (2008) study of old age poverty and health in rural Cambodia the household wealth index, which “is widely used in recent analyses that consider poor countries” was used (p. 60). This measure of old age poverty was based on household assets, including: “radio, television, jewelry, motorcycle, fan, telephone, car, or refrigerator”, and structural components including: a “modern toilet, which is defined as an indoor toilet that can be flushed [and] a modern floor, which is defined as a floor that is constructed using modern materials, specifically, finished wood, vinyl, asphalt, ceramic, marble
or cement, as opposed to a floor constructed of dirt, clay, unfinished wood, or similar types of primitive materials” (p. 60).

2.6.5.2.3 Category 3, self-perceived poverty.

Six studies included a subjective indicator of old age poverty. In these studies, participants were commonly asked to identify their poverty status on a pre-determined scale. For example, Wang et al. (2011) used a Life Satisfaction Scale that was used in the 2006 China and Health National Survey, to measure “subjective well-being poverty” (p. 714). The scale was used to “rate subjective well-being of senior citizens, [in which] the well-being status is personally rated into three levels: poor or very poor, average and good or very good, which are represented by 1, 2 and 3 respectively, where ‘poor or very poor’ (1) indicates poverty” (p. 720). The study by Gray et al. (2008) is another example, they asked their participants “Do you feel poor compared to your neighbors?” with responses: “feeling poorer than your neighbors, feeling just as poor as your neighbors, and not feeling poor” (p. 216).

2.6.5.2.4 Category 4, other measures of poverty.

Seven studies included another measure of poverty, including: socio-demographic indicators, such as low education levels (Callander et al., 2012; Hazzouri et al., 2011; Wight et al., 2008), unemployment status/levels (Chaaya et al., 2010; Wight et al., 2008), poor health status (Callander et al., 2012; Zimmer, 2008), residency (living in an impoverished community) (Chaaya et al., 2010; Hazzouri et al., 2011; Zimmer, 2008), and food insecurity (Chi & Tucker-Seeley, 2013). For example, in the study by Chaaya et al. (2010), a poor community was defined as "densely populated areas with poor physical infrastructure and limited work opportunities for its residents” (p. 28). Finally, the study by Adeyanju et al. (2015) used the term “destitution” as a definition or measure of poverty.
2.6.5.3 What were the studies’ main objective(s) and finding(s) regarding old age poverty?

The studies can be categorized into five types, based on the main objective(s). Most (n=13) explore the risk and protective factors and processes of old age poverty (e.g., old age poverty is a dependent variable) – labeled type one. In contrast, 11 studies, labeled type two, examine how poverty affects factors and processes (e.g., old age poverty is an independent variable). The six studies categorized as type three seek to understand the challenges or strengths of older persons living in poverty. Type four studies (n=12) investigate how one (or more) factors or processes influence each other, for older people living in poverty (e.g., how does an increase in public pension affect the health status of low income older persons?). Fourteen studies were labeled as type five, using micro-simulations to estimate poverty rates (e.g., what is the incidence of poverty among older immigrants in Canada?), an old age poverty threshold, and the likelihood of experiencing old age poverty. In the next section, we review the key finding(s) under each study type. Table 10 outlines the main objectives(s) of the studies based on the five types detailed above.

2.6.5.3.1 Type one.

Eleven main risk or protective factors and processes were examined in type one studies, eight at the individual level including age, financial kin transfers, employment status, gender, nativity, living arrangements, home tenure type (e.g., own or rent), and marital status.

At the individual level, the following were found to be risk factors and processes: older age (Berthoud et al., 2009), retired/not-employed (Yang, 2011), previous employment (pre-retirement) was irregular or non-standard (Yang, 2011), being a woman (Yang, 2011), being a women who is unmarried/divorced (Peeters & Wouter, 2015), immigrant/non-native born (Phua,
McNally, & Park, 2007), immigrating at an older age (Phua et al., 2007), living in a household with a greater number of children (Tai & Treas, 2009). Alternatively, the following were found to be protective factors and processes at the individual level: receiving financial kin transfers (Kim & Cook, 2011; Lee & Lee, 2009), paid work post-retirement (Yang, 2011), co-residency (Phua et al., 2007; Tai & Treas, 2009; Yang, 2011), and homeownership (DeWilde & Raeymaeckers, 2008).

Three risk or protective factors occurred at the environmental level, including social pensions, social housing provisions, and the type of welfare regime of the state. Six studies examined multiple risks or protective factors and processes, while the remaining five focused solely on one.

At the environmental level, social (public) pensions were found to be a protective factor in five out of the seven studies that investigated its effect on old age poverty (Choi & Kim, 2010; DeWilde & Raeymaeckers, 2008; Kakwani & Subbarao, 2007; Long & Phua, 2009; Peeters & Wouter, 2015). Albeit, in one study (DeWilde & Raeymaeckers, 2008), when the social pension was compared to social housing provisions the latter was found to be most significant in reducing old-age poverty. The other two studies found that social pension had little or no significant effect. For instance, in Lee and Lee's (2009) study, which examined the contributions of public transfers versus private familial transfers, they found that it was the latter that contributed most to the income of "the single elderly in the low-income group," which was the sub-cohort that are at the most risk of living in poverty (p. 405). Also, van Vliet, Been, Caminada, and Goudswaard's (2012) study of 15 European countries, concluded that there was "no evidence that an increasing share of private pensions leads to higher income inequality and poverty among older people” (p. s15). Social exclusion was found to be a risk factor and process
in Lee, Hong, and Harm’s (2014) study, whereby “exclusion from social and civic life, exclusion from asset building, and exclusion from the labor market—contribute significantly to Korean immigrant older adults’ odds of living in poverty” (p. 386).

2.6.5.3.2 Type two.

Of the nine type two studies, all of the factors and processes examined were at the individual level, and all were health-related. Most researchers sought to examine how poverty can influence factors and processes related to health (including mental health), the remaining two focussed on out-of-pocket health expenditures and access and use of health information, respectively. None of the studies explored multiple factors and processes.

All of the studies reported that poverty was significantly associated with poorer health statuses (Adena & Myck, 2014; Chi & Tucker-Seekly, 2013; Gray, Rukumnuaykit, Kittisucksathit, & Thongthai, 2008; Kim, Richardson, Park, & Park, 2013; Ko, Jang, Park, Rhew, & Chiriboga, 2014; Johnson, Schoeni, & Rogowski, 2012; Louie & Ward, 2011; Sachs-Ericsson, Corsentino, & Cougle, 2009; Wight et al., 2008). For example, Chi and Tucker-Seeley’s (2013) established a significant association between “the number of financial hardships and self-reported oral health” (p. 1509). Ko et al. study (2014), is another example, whereby older people who lived in poorer neighbourhoods, defined as having a higher proportion of residents living below a poverty line, “were more likely to report poorer ratings of health” (p. 95). The three studies that focused on mental health indicated that poverty was significantly associated with lower mental health statuses. For instance, Kim et al. (2013) findings supported the hypothesis that poverty and depression were significantly associated only with women and not men. Albeit, Sachs-Ericsson et al. (2009) found that having more difficulties in meeting basic needs was a
significant predictor of higher cognitive functioning (e.g., orientation, registration, attention, calculation, recall, and language).

Only one study focused on the association between poverty and the access and use of health information. In that study, Wiltshire et al. (2009) found that poverty is a significant predictor of being less likely to seek health information and utilizing such knowledge during a visit with a physician. Lastly, in the sole study that investigated the links between poverty and out-of-pocket health care expenditure, Kim and Richardson (2014) find no significant association between poverty status and out-of-pocket health care, however, older persons who have more than one health insurance (namely, Medicaid and Medicare) spent less than those who had coverage only by one of the health insurances programs.

2.6.5.3.3 Type three.

Five out of the six studies categorized as type three focused on the challenges of older persons living in poverty. For example, two exploratory studies reported on the challenges older persons living in poverty experienced, including a vary of social (e.g., experiencing social stigma), economic (e.g., low income leading to fewer or no options in terms of health care choices), and cultural (e.g., disinheritance of a widow due to rejecting cultural norm of marrying your husband's brother) challenges (Adeyanju et al., 2015; Kietzman et al., 2012). Three of the studies identified specific challenges experienced by older adults living in poverty, such as incurring high housing costs (Ryser & Halseth, 2011a), over-reliance on family-support (Ryser & Halseth, 2011b), and barriers to physical activity participation (Plow, Allen, & Resnik, 2011).

Only one study adopted a strengths-based approach to an understanding of older persons living in poverty. Onolehemhemen (2009) explored the lived experiences of older women living in poverty in Detroit, US, identifying both personal strengths (e.g., "resilience,
spirituality/commitment to the church, managing limited economic resources, and strong and attentive family members") and environmental strengths (e.g., "living in an urban environment and benefits derived from government income transfer programs") (p. 740).

2.6.5.3.4 Type four.

Ten of the 12 type four studies sought to understand health-related outcomes of certain factors and processes, for older persons living in poverty (e.g., health status was the dependent variable). Independent variables examined in these studies included, individual level factors: employment status, gender, English proficiency level (for immigrants in the US specifically), length of residency (for immigrants in the US specifically), marital status, coping strategies, home tenure type, wealth status, disability status, and income/financial status. At the environmental level, independent variables included: social pensions, the built environment, neighbourhood cohesion, and social support. The remaining two studies used a broad concept, successful ageing, as their dependent variable (which included some health-related indicators) and were exploratory and thus did not have specific independent variables.

Regarding the key findings of type four studies, the following were found to be risk factors and processes of worse health-related outcomes (e.g., physical disability, lower mental health status or decreased accessed to health care utilization) for poor older persons: being a woman (Hazzouri et al, 2011), a widow (Lee & Yoon, 2011), living alone (Lee & Yoon, 2011) low income (Jeon, Noguchi, Kwon, Ito, & Tamiya, 2017; Lee & Yoon, 2011), having a disability (Jeon et al., 2017), scoring low on a wealth index (as measured by the amount of assets you own and the type of household structure), lack of English proficiency (for immigrants living in the US) (Lee & Yoon, 2011), and longer residency (for immigrants living the US) (Lee & Yoon, 2011). Alternatively, social pension (Brenes-Camacho, 2011; Jeon et al., 2017), public health
insurance (Kim & Frank-Miller, 2015) employment (Chaaya et al., 2010), social support (Lee & Yoon, 2011), and spiritual coping strategies (Lee & Yoon, 2011) were found to be protective against negative health-related outcomes.

There were mixed findings related to the built environment and neighbourhood connectivity/cohesion. For instance, Chen et al. (2016) found that neighbourhood support and "at-ease walkable proximity" to community facilities were both independently and significantly associated with more positive mental health scores (p. 423). In contrast, Engel et al. (2016) did not find that street connectivity, nor social cohesion was significantly associated with higher health-related outcomes, albeit they did find that the two were significantly associated to "capability wellbeing" (a non-health related indicator) (p. 4).

The two exploratory studies conducted by Olivera and Tournier (2016) and Chung and Park (2008) investigated the determinants of successful ageing of low income older persons in Peru and South Korea, respectively. Olivera and Tournier (2016) found that “male gender, younger old age, literate, employed, low food insecurity, good nutritional status, normal blood pressure, absence of disabilities, non-smoker, empowerment, good self-esteem, absence of mental disability, and less frequent contact with a social network” (p. 1691) predicted higher scores in successful ageing among poor older persons. In Chung and Park’s (2008) study successful ageing among poor older persons was predicted by male gender, having “a positive attitude towards life,” the “success of adult children,” and positive “relationships with others” (p. 1061).

2.6.5.3.5 Type five.

Of the type five studies, most researchers (n=8), sought to estimate old age poverty incidences using alternative measures/methodologies and comparing it with rates of poverty
derived from official or more traditional measures/methodologies old age poverty incidences. Three studies employed only official measures/methodologies, and one each used an income threshold to meet basic needs, for older persons specifically, and the likelihood of experiencing old age poverty.

All but one of the eight studies using alternative poverty measures/methodologies to estimate poverty, found that old age poverty was underestimated when comparing rates of poverty derived from official measures (Butrica, Murphy, & Zedlewski, 2009; Chung, Issacs, & Smeeding, 2013; Hutto, Waldfogel, Kaushal, & Garfinkel, 2011; Nicholas & Wiseman, 2009; Peeters, Debels, & Verpoorten, 2013; Wallace et al., 2013; Wang et al., 2011). For example, Butrica et al. (2009) used an alternative measure of poverty that accounted for out-of-pocket health spending and found that “between 0.3 and 1.5 million more older adults live in poverty than acknowledged by the official measure [in the US],” which only accounts for cash income (p. 484). Wallace et al. (2013) study, another example, used the Elder Index to determine the poverty rates of older Latinos compared to non-Latino white in California, US. They found that the basic threshold for a single older person living in California in 2007 was $21,011 and for a couple was $30,472, which differed markedly from the 2007 official poverty measures that indicated the basic threshold was $10,272 for a single adult and $13,690 for a couple, leading the authors to conclude that “almost 60 % of Latinos have incomes below the Elder Index compared to one-quarter of non-Latino whites” (p. 239).

In contrast, Callander et al. (2012) found that only 59 percent of the those who are in income poverty using a traditional measure are also in freedom poverty, an alternative poverty measure that conceptualizes poverty “as a lack of freedom and that the people living in poverty
do not have the capabilities to participate in society and as such have poor living standards” (p. 371). This measure included indicators for income, health, and education.

Two of the three studies that estimated old age poverty incidences using official or more traditional measures/methodologies had a specific objective (Kaida & Boyd, 2011; Gustaffson, Johansson, & Palmer, 2009). Kaida and Boyd (2011) estimated poverty incidences of a specific cohort group, oldest-old (70+) immigrants, and found that compared to their Canadian-born British descent counterparts, there was a higher prevalence of poverty. Also, they found that among the immigrant group highest prevalence was among new wave immigrants and women, respectively. Gustaffson et al. (2009) estimated increases in poverty incidences (based on relative and absolute income poverty) among Swedish pensioners during 1991 to 1998, a timeframe when pensions were being reduced. Lastly, Srivastava and Mohanty (2012) who estimated old age poverty incidences across and within India, found that among the 17.7 million older persons are living in poverty in the nation, the percentage of old age poverty rates varies from 5 to 45 percent from state to state, whereby incidences are higher in states that have overall higher poverty levels in the general population.

The study by MacDonald et al. (2010) used alternative poverty measures to estimate a basic income threshold for a single older person and a couple living in Canada and found that the social protection measures for older persons in Canada (Old Age Security Pension and Guaranteed Income Supplement) would not lift an older person above the basic threshold.

Lastly, Rank and Williams (2010) used a more traditional poverty measures (based on income and assets) to estimate the likelihood of an individual aged 60 to 90 experiencing poverty in the US. They found that almost 50 percent of older Americans will experience, at a minimum, one year of poverty or near poverty across this age range. Also, 58 percent of older Americans
between the ages of 60 and 84 "will at some point fail to have enough liquid assets to allow them to weather an unanticipated expense of downturn in income" (p. 337).

Eight of the studies also reported demographic characteristics of older persons who experience a higher prevalence of poverty, which included: women (Butricia et al., 2009; Callander et al., 2012; Jerliu, Toci, Burazeri, & Ramadani, 2012; Kaida & Boyd, 2011; Wang et al., 2011), the widowed (Butricia et al., 2009), the single/unmarried (Rank & Williams, 2010; Wang et al., 2011), those with poor health statuses (Wang et al., 2011), those who are home renters (rather than home owners) (Wallace et al., 2013), the oldest-old (70+) (Callander et al., 2012), those who live in specific locations in Australia (Callander et al., 2012), those with low education levels (Jerliu et al., 2012; Rank & Williams, 2010), and those who live alone (Jerliu et al., 2012), and immigrants (Kaida & Boyd, 2011).

There were contrasting findings regarding urban versus rural residency; two studies (Wang et al., 2011; Srivastava & Mohanty, 2012) reported higher prevalence among the rural residents and one study (Jerliu et al., 2012) reported high incidence among urban dwellers. Albeit, all three studies were in different contexts: China (Wang et al., 2011), India (Srivastava & Mohanty, 2012) and Kosovo (Jerliu et al., 2012).

There were also different findings regarding ethnicity in two studies conducted in the US; Butricia et al. (2009) reported higher prevalence among the white ethnicity group, whereas Rank and Williams (2010) reported higher prevalence for the black ethnicity group.

2.6.6 Discussion.

In addition to providing a broad understanding of the current evidence-based knowledge regarding old age poverty, in this review, we sought to identify gaps in knowledge and offer recommendations for future research, which will be elaborated on in the discussion section.
The most central finding from the review concerning how old age poverty is defined is the overwhelming reliance on traditional measures of poverty, despite a growing trend towards conceptualizing poverty through multiple lenses (United Nations Development Programme [UNDP] & the Oxford Poverty and Human Development Initiative [OPHI], 2016). Traditionally, poverty has been examined and understood through objective and economic-related indicators that include income, consumption, and asset/wealth indicators (Wang et al., 2011). Albeit, within development policy discourse, over the course of two decades, there has been a wider acceptance of poverty as a complex and multi-dimensional phenomenon. For example, in 2010 the UNDP and OPHI created the Multidimensional Poverty Index (MPI) based on the conceptual framework of Amartya Sen’s capability approach, which recognizes poverty as a deprivation of substantive freedoms (including basic capabilities) (UNDP & OPHI, 2016).

The MPI measures poverty at the individual (or household) level and complements traditional income (and expenditure) based measures by including three additional dimensions: education, health, and standard of living (UNDP & OPHI, 2016). The instrument has ten indicators and poverty is defined as being deprived of three or more of the indicators. The greater number of deprivations beyond three connotes the severity of poverty. The indicators for education having a household member who has completed less than six years of schooling and disrupted or stopped school attendance of child (anywhere between years 1-8). Health indicators include: adult or child malnutrition (whereby at least one of two conditions are met: “there is an adult (15 years or older) with the Body Mass Index (BMI) <18.5” and “there is a child, 0-59 months of age, who is shorter for the age (height-for-age z score) according to the WHO standards”) and child mortality (within the last 5 years) (p. 4). There are six indicators for standard of living, whereby the household: cooks with dung, wood, or charcoal; lacks improved
sanitation or has improved sanitation (specifically toilets or latrines that flush and are ventilated) but shares it with others; lacks access to safe drinking water or safe drinking water is far (specifically 30 minutes walking distance, roundtrip); has no electricity; has dirt, dung, or sand as floor; does not own more than one modern household asset (which include a radio, TV, telephone, bike, motorbike, refrigerator, and car).

The way in which poverty is defined is critical, as this ultimately shapes who are the poor are, the prevalence of poverty, and how anti-poverty policy and practice interventions are employed. As is evident from this review, there is a great need for more empirical inquiries into the multi-dimensionality and complexity of old age poverty. Specifically, further research should include subjective measures of poverty within their definition. While a few of the studies in the review did integrate self-perceived poverty into their definition, responsiveness to respondents was limited, whereby respondents merely selected their response based on a pre-determined scale.

The review highlights that current literature is dominated by external notions of poverty, as a corrective the perspectives, experiences, ideas, and insights of older persons who have been labeled as the poor need to be engaged (Carr, 2008). The call for “a new narrative which embraces heterogeneity in both our identifications of poverty and our means of measuring that of which we identify as poverty” (p. 730) can be answered by participatory research approaches and qualitative data collection methods (such as in-depth interviews. Future research on old age poverty should consider integrating such designs and methods.

This review identified several key findings. Firstly, there is sufficient evidence to suggest that social pension has a protective effect for older persons (type one studies) and is correlated with more positive health outcomes among those older persons who are poor (type four studies).
While a few studies focused on the comparative effects of different social pension schemes (e.g., universal pension versus means-tested), future research is necessary to determine the most effective mechanism for a social pension. Particularly, there is a need for more evidence-based knowledge in low and lower-middle income countries, in which pension schemes are developing, and such inquiry can inform social pension policy and reform.

Secondly, the findings on gender and old age poverty suggest that women are more likely to experience unfavourable outcomes. In general, women experienced a higher prevalence of poverty (type five studies). Women were more likely to be poor (type one studies), experience negative mental health outcomes (type two studies), and have lower scores in successful ageing (type four studies) compared to their low-income male counterparts. While the type three studies did not necessarily compare women to men, studies of women living alone highlighted the variety of economic, social and cultural challenges they face. Building on some preliminary research, further examination regarding gender and old age poverty should consider the intersectionality of gender with other identities or factors and processes. In this research, there is a need to focus on sub-cohorts of older women, for example, those who are not married, living alone, or have poorer health statuses (including mental health).

Thirdly, there is a paucity of empirical studies that engage older persons living in poverty from a strength-based perspective. Of the type four studies, only one attended to strengths, rather than the overt focus on “pathology, deficits, problems, abnormality, victimization, and disorder” (Saleeby, 1996, p. 296) as prioritized in the psychological approach. Saleeby describes the strengths perspectives as:

… a different way of looking at individuals, families, and communities. All must be seen in the light of their capacities, talents, competencies, possibilities, visions, values, and
hopes, however, dashed and distorted these may have become through circumstance, oppression, and trauma. The strengths approach requires an accounting of what people know and what they can do, however, inchoate that may sometimes seem. It requires composing a roster of resources existing within and around the individual, family, or community. (p. 297)

Importantly this perspective does not encourage researchers to ignore problems, rather it articulates, the need for parallel attention to strengths and assets. As Saleeby (1996) argues, “it is as wrong to deny the possible as it is to deny the problem” (p. 297). Future research needs to investigate both challenges and strengths poor older persons experience to inform interventions that address barriers/issues and capitalize on possibilities.

Fourthly, there is a gap in knowledge concerning how a socio-cultural context influences old age poverty. Albeit, notably, there are only a few studies that either implicitly or explicitly investigated how the socio-cultural context can influence old age poverty, their findings are helpful. For example, South Korean studies by Kim and Cook (2011) and Lee and Lee (2009) found that the socio-cultural norm of familial kin transfers was a significant protective factor against old age poverty. However, future research should attend to the impacts of changing socio-cultural norms in the context of globalization. Adeyanju et al. (2015) provides a more explicit example of how a socio-cultural context can influence old age poverty, in Yenagoa, Nigeria. Traditionally widows remarry their husband's brother, and destitution is likely for those who disobey this norm. Thus, socio-cultural context can be a powerful influencer of old age poverty – who is or will become poor, how they experience poverty, and what policy/program interventions are instituted. As such, there is a need for future research to explore the role of culture in shaping the dimensions of old age poverty.
Fifthly, most of the studies examined old age poverty, largely, under macro and
generalized contexts (e.g., 41 of the 56 studies investigate the phenomenon within a national
context – either through a single country or more). As there can be great contextual diversity
within a country, further research needs to consider poverty through a particular and localized
context, including at the community, city, and province/state level. As Carr (2008) cautions, the
“practice of poverty alleviation is greatly limited by a vision of poverty that fails to capture the
locally specific causes of and solutions to the challenges that threaten human well-being” (p. 726).
He also clarifies that it is not an either/or paradigm, where national understandings of
poverty should be abandoned, but rather poverty needs to be understood through both
generalized and particular contexts.

Sixth and lastly, connected to the issue of examining old age poverty primarily through
generalized contexts, is the lack of real-world and applied research. As Mead’s (2012) advocates:
Researchers need to change their view of poverty and their research methods…. 
[Further], that research methods should become more realistic. The typical poverty
researcher is a statistician who builds models of some aspect of poverty using data from
surveys of the low-income population. Scholars operate from behind their computers and
have little hands-on contact with the relevant [anti-poverty] programs. (p. 543)

This scoping literature concurs with Mead (2012) in that there is a lack of real-world applied
empirical research on old age poverty. Evaluation research of real-world examples of anti-
poverty programs, policies, and, practices geared toward the older population, is one such
example. Evaluation research that engages the perspective and ideas of the end-users is
especially critical to understanding how and why policies, programs, and practices fail to or
succeed in addressing various problems associated with poverty. Such inquiries would involve field-based research and may include both subjective and objective measures of poverty.

When interpreting the findings of this review, there are several limitations that need to be considered. Firstly, only three social sciences-based databases (Abstracts in Social Gerontology, Social Services Abstract, and Social Work Abstracts) were searched, which both limited the number of references included in this review and excluded more specialized or non-social sciences-based databases (e.g., Economist Historical Archive and PubMed) that may have identified different aspects of old age poverty. Secondly, the review included only English language articles, thus prioritizing high-income countries and those within Western or Euro-centric contexts and potentially eliminating studies which could contribute more to a multi-contextual and dimensional understanding of poverty, especially in regards to the socio-cultural diversity (Kwan & Walsh, 2017). Thirdly, since studies were not excluded based on their methodology, certain decisions had to be made on the relevant data to extract which necessarily reduced the richness, complexity, and thickness of the findings (Weeks & Strudsholm, 2008). Fourthly, and lastly, there was a variance in the sample (via the age of older persons, sample size, and the focus on specific sub-cohorts, such as immigrants) that makes inter-study comparisons difficult (Kwan & Walsh, 2017).

2.6.7 Conclusion.

The eradication of poverty continues to be a key priority for policy and decision makers worldwide (United Nations General Assembly, 2014). Parallel to the drive towards ending poverty, is the growing older population, worldwide. Thus, understanding old age poverty needs to be an essential part of anti-poverty policies, programs, and practices. Researchers have an essential role to play in contributing to the evidence base necessary to inform such interventions.
In conducting this review, we hope to contribute to such a knowledge base by mapping out the current literature on old age poverty.

In summary, we found that there were four ways in which old age poverty was defined (by income and consumption measures, assets or wealth-based measures, self-perceived poverty, and a general category of other measures, which included socio-economic status, health status, and residency, amongst others). This review identified that the studies included had a number of main objectives including exploring the risk and protective factors and processes of old age poverty; examining how poverty affects other factors and processes; understanding the challenges or strengths of older persons living in poverty; investigating how one (or more) factor(s) or process(es) influence each other for older people living in poverty; and estimating poverty rates, old age poverty thresholds, and/or the likelihood of experiencing old age poverty. In addition to identifying gaps in the literature regarding old age poverty, we suggest recommendations for future research. Overall, the findings of this review caution that the movement towards poverty eradication, must not ignore an important (and growing) population – older persons.

I now transition, to conclude this chapter, with a discussion on how the findings from the two literature reviews (one focused on older people’s resilience within the context of disasters and the other on old age poverty) have informed my study, and specifically guided me to address the various knowledge gaps in the current literature.

2.7 Situating My Study

Regarding the literature review on older people’s resilience within the context of disasters, I sought to contribute to knowledge building, in this area, in the following ways. Firstly, in my study I aimed to inform research, practice, and policy relevant to mitigation, which
is an area of the disaster management cycle that requires more attention. My study was conducted 3-years post typhoon Haiyan, whereby Tacloban City had largely past the response stage and recovery was ongoing (HAI & COSE, 2014). For instance, NGOs, like COSE, were preparing to conduct activities related to mitigation and preparedness (HAI & COSE, 2014). Thus, the focus of my study was on exploring how pre-impact conditions, such as social infrastructure, influence older people’s resilience to disasters. However, it is important to note that throughout the dissertation (especially in Chapter five the discussion section) I discuss the implications of the study findings throughout the four phases (mitigation, preparation, response and recovery) as resilience is not a linear process and the phases often overlap (Contreras, 2016).

Secondly, the conceptual framework and methodology I adopted emphasize the importance of exploring environmental factors and processes relevant to resilience. This focus on context is needed as current research is dominated by the investigation of individual level factors and processes. Third, and lastly by focusing on older people living in poverty and particularly those who are women, widowed, and living independently in the community (which did not necessarily mean living alone in my study; I explain the rationale for this in Chapter three), my study puts a spotlight on this specific cohort who are underrepresented in the literature.

To gain a more in-depth understanding of this specific cohort, I needed to review the current empirical research on old age poverty. The importance of focusing on this sub-cohort was reiterated by the findings of the review, as there was evidence that suggested they were more likely to experience poverty or negative effects related to their poverty status. Furthermore, I was encouraged by the findings of my review to adopt a multi-dimensional definition of poverty in my study, rather than focusing solely on economic-related indicators (I explain in-depth how poverty was defined in my study in Chapter three). Lastly, it was highlighted in the review that
there is a need for more empirical studies where old age poverty is examined within different socio-cultural contexts (aside from the usual Western and Euro-centric contexts), low or lower-middle income countries, and within more local contexts. I addressed this gap, as my study was conducted in the Philippines, which is socio-culturally unique and a lower-middle income country, and while the findings are connected to these macro level contexts it is also focused on the community context.

2.8 Chapter Summary

In this chapter, I critically reviewed current literature regarding older people’s resilience within the context of disasters and old age poverty. In each review, I synthesized the studies and identified key learnings and gaps in knowledge regarding the specific phenomenon. Lastly, I discussed how my study was situated in the intersections of the two bodies of literature, and how it was informed by the key learnings and knowledge gaps. The contents of this chapter provided the background and rationale for many of the decisions made in the next chapter (e.g., research design, data collection methods, and characteristics of participants).
Chapter 3: Methodology

3.1 Chapter Overview

In this chapter, I first make explicit my research paradigm, social location, identities, and experiences as they relate to the research topic. Then I describe the methodology used in my study, why it was most appropriate to answer the research questions and the rationale for the modifications and actions. Lastly, I end this chapter with a discussion concerning rigour and ethics.

3.2 Explanation of Integrating a Published Manuscript in Chapter Three and Contribution of Authors

In this chapter, I integrated sections of text from a manuscript that was published (Kwan & Walsh, 2018). Specifically, the integration is only within section 3.6.4. I am the first author, in which I acquired, analyzed, and interpreted the data and led the writing of the manuscript (ICMJE, 2017). Dr. Christine A. Walsh, my Ph.D. supervisor, was the co-author of this manuscript. She meets the criteria for authorship as explained already in Chapter two.

Permission was obtained by The Qualitative Report to reprint and include sections of the published manuscript in my dissertation (see Appendix G). Also, my co-author Dr. Walsh provided permission to include sections of the manuscript in my dissertation (see Appendix D).

3.3 My Research Paradigm: Feminist Pragmatism

In 1962, Thomas Kuhn encouraged researchers in his book, The Structure of Scientific Revolutions, to unveil and reflect on their worldview of knowledge creation (Morgan, 2007). Morgan (2007) asserted that this “landmark book . . . is directly responsible for the popularity of paradigms as a way to summarize researchers’ beliefs about their efforts to create knowledge” (p. 50). A philosophical paradigm is a system of beliefs and practices that impact the entire
research process. The paradigm influences the questions that are asked, the methods of data collection, the data source(s), the role of the researcher, the strategies used to analyse the data, and how the findings are presented, amongst many other decisions and actions to be made throughout the research process. As such, unveiling and reflecting on the philosophical underpinnings of ones' research paradigm is critical to scholarly work. I begin this chapter by outlining the philosophical underpinnings of my research paradigm, feminist pragmatism.

Feminist pragmatism is an alternative to the more traditional and conventional paradigms in social research such as post-positivism and constructivism (Bardwell-Jones & Hamington, 2012). Its roots lie within the progressive era (1890 to 1920) and classical American pragmatism (Deegan, Hill, & Wortmann, 2009). In fact, contemporaries of this paradigm (e.g., Deegan et al., 2009; Seigfried, 1991; and Whipps, 2004) ascertained that the seminal works by classical American pragmatists, such as John Dewey and William James, were influenced by the early women pioneers of feminist pragmatism, which included Jane Addams, Charlotte Perkins Gilman, Emily Greene Balch, Mary Whiton Caulkins, Elsie Ripley Clapp, and Alice Chipman Dewey.

Scholars following a feminist pragmatism paradigm espouse various beliefs and practices that implicate research. First, they are encouraged to commit to pluralism and reject traditional dichotomies, such as objectivity versus subjectivity (Radin, 1990). According to Mollard (2015), within this paradigm knowledge can be “drawn both from the objective world in which one lives as well as from the socially constructed world that humans have created” (p. 381). Because of this commitment to non-duality, feminist pragmatism may be perceived as a mediating paradigm between post-positivism and constructivism. Additionally, researchers are encouraged to utilize various methodologies – qualitative, quantitative, or mixed methods, “based on what works best
for the researcher’s needs and what will help them gain the best understanding of the research question” (p. 381). Secondly, within this paradigm, there is an acceptance of fallibilism, which means that claims of empirical knowledge can hold true despite the inability to prove its certainty (Bardwell-Jones & Hamington, 2012). Thirdly, the transformative nature of feminist pragmatism is another attribute of the paradigm (Seigfried, 1991). Early pioneers of this paradigm were activist and reformist committed to uprooting social and political oppression based on sex, class, race/ethnicity, and nationality. As such, scholars are committed to meliorism, which is the idea that the world can become a better place by what we, as humans, do to it. Within this paradigm, science or inquiry, then, is intimately linked with social reform or action. Fourthly, feminist pragmatist researchers are committed to both context and experience (Bardwell-Jones & Hamington, 2012), whereby they are encouraged “to ask diverse macro-level questions about culture, gender, and geographic differences, while still maintaining a micro-level focus on the woman and her individual experience" (Mollard, 2015, p. 390). Fifth and lastly, the concept of community plays an integral role in feminist pragmatism (Gillberg, 2012). For instance, Gillberg (2012) argued that "men and women . . . live in communities of shared interest, and it is more likely than not safe to assume that deeply reflected solutions, rooted in experience and shared knowledge, will eventually benefit all" (p. 226). Thus, researchers informed by feminist pragmatism do not exclusively focus on the experiences of women but also "examines the experiences of the involved community” (Mollard, 2015, p. 387).

3.4 Who Am I, In Relation to my Research Study?

Reflexivity is "commonly viewed as the process of a continuous internal dialogue and critical self-evaluation of a researcher's positionality as well as active acknowledgment and explicit recognition that this position may affect the research process and outcome" (Berger,
Personal characteristics (e.g., gender, age, education, and race), personal experiences, "beliefs, biases, preferences, theoretical, political and ideological stances and emotional response to participants," amongst others, are relevant dimensions for the researcher to reflect on (p. 220). I shared some reflections in Chapter one regarding motivations to conduct my study. In this section, I go more in-depth and ask: who am I, in relation to my research study?

First, I am a single thirty-three years old Chinese woman, who was born, raised, and educated in Canada (a high-income country). Socio-economically, I represent the middle class within my society. I live (and have lived all my life) in Calgary, Alberta. I have never experienced poverty, both subjectively (e.g., I never felt deprived) and as defined by the MPI (UNDP & OPHI, 2016). Albeit, as a household, when I was younger our family was on social assistance for two years. During that period, my parents were new immigrants and blue collared workers, with five children, all of whom were under the age of 12. Lastly, I have been directly impacted by a disaster, which was the 2013 Alberta floods. I was living in downtown Calgary at that time, on a higher unit in a high-rise apartment. Therefore, I did not experience loss or damage, and most of my family also did not suffer much damage or loss. Albeit, one of my closest friends lived in a neighbourhood that was severely impacted by the floods, and I and others spent most of the post-disaster time supporting her and her family, emotionally and physically, in the recovery process. These personal characteristics and experiences were necessary to reflect on, and continue to think about throughout my study, as I acknowledge that I was (primarily), what Berger (2015) described, a “stranger in strange land . . . studying the unfamiliar” (p. 227). The participants in my study represent a marginalized group in society (older women living in poverty, who are widowed, head of household, and living in a disaster-affected community in the Philippines, which is a lower-middle income country with limited
welfare provisions in comparison to Canada) who likely have limited resources. Thus, critically reflecting on my social location and power relations/dynamics were particularly pertinent. Reflective inquiry and critical consciousness of power relations/dynamics are at the core of social work education and training (Fook and Gardner, 2007). My educational and work experience in social work has allowed me to develop reflective practices and strategies toward facilitating what Bishop (2002) encouraged as power-with (based on mutuality, solidarity, and collaboration) rather than power-over (based on repression, coercion, domination, and abuse) relationships.

Second, as previously mentioned, my educational experience, specializing in international and community development within the MSW program, motivated me to examine issues through a global-local lens. My MSW experience also fostered my interest in practicing and conducting research within an international context. As previously mentioned, during my MSW I facilitated a community-based research project in the Philippines, in 2011, with eight local elders from marginalized communities (Kwan & Walsh, 2013). The goal of the study was to understand and document (through photography and videography) the community leadership stories of the elder participants. From this project, I learned not only about the issues and challenges older people face in the Philippines but also, and perhaps more importantly, their strengths and abilities. This experience was a deeply personal journey, as my ageist values, beliefs, and assumptions were unveiled to me and I began to recognize how ageism was deeply permeated within societies and indeed within my own views. I believe that many older people experience injustices because of systems and structures that are profoundly ageist. I also think we need to create multiple realities of ageing. These realities of ageing need to be co-created with older people. Against such contexts, I was interested in developing a greater understanding
of growing old in the face of poverty and climate disasters from the perspectives of older
women, living in the Philippines.

3.5 Research Objectives and Questions

The research objectives of my study were to provide a rich and in-depth description that
capture the peculiarity, heterogeneity, and complexity of older people’s resilience within the
context of disasters, and to explain how a myriad of micro, mezzo, and macro factors and
processes influence such resilience. The specific research questions for my study were:

- What are the key individual and environmental factors and processes (specifically during
  the mitigation phase of the disaster management cycle or non-disaster times) that drive
  the resilience of older women living in poverty, who are widowed, head of household,
  and living in a disaster-affected community in the Philippines?

- How do such factors and processes influence and shape resilience?

3.6 Research Design

My research design was primarily informed by case study methodology, and it included
PAR elements. In this next section, I first explain what case study methodology is, the rationale
for using it, and how I have applied the methodology to my study. Then I delineate what PAR is,
and why and how I have integrated some of its elements throughout the research design.

3.6.1 What is case study methodology?

Yin (2012) defined case study research as “an in-depth understanding of a single or small
number of ‘cases,’ set in their real-world contexts” (p. 4). "Individuals, organisations, processes,
programs, neighbourhoods, institutions and even events” can be considered a case (Yin, 2009, p.
17). Case study research is a term that is often used in research articles with varying (and
sometimes conflicting) meanings. The confusion partly stems from the use of case study research
in multiple disciplines (e.g., education, law, social work, economics, medicine, and business), and its confusion with other terms, such as case study method (a pedagogical tool), fieldwork, and ethnography (Merriam, 2010; Yin, 2012). The flexibility of case study research to be used across research paradigms (e.g., post-positivist, constructivist) further contributes to its nebulosity and its lack of positioning as a research methodology (Anaf, Drummond, & Sheppard, 2007). However, a strong body of literature exists, including work from three foundational authors, Robert Yin, Robert Stake, and Sharan Merriam, that have contributed to the development and acceptance of case study research as a methodology in its right (Brown, 2008).

There are several key attributes of case study methodology. Firstly, the focus is on understanding the particulars and capturing the complexity of a phenomenon (Stake, 1995). Thus, case study researchers seek to provide “a full and thorough knowledge of the particular, recognizing it also in new and foreign contexts” (Stake, 1978, p. 6). Secondly, a strength of case study research is the spotlight on producing context-based knowledge (Stake, 1995). In case study research, the context is integral to understanding the phenomenon and analyses cannot be conducted without accounting for context (Merriam, 2010; Yin, 2012). Yin (2003) noted that case study research is used “because you deliberately wanted to uncover contextual conditions—believing that they might be highly pertinent to [the] phenomenon of study” (p. 13). Third and lastly, utilizing multiple types of methods for data collection is another key aspect of case study methodology (Stake, 1995). Specific methods of data collection are not dictated within the case study methodology, rather a “palette of methods” should be employed (Stake, 1995, p. xi). Stake (1995) and Merriam (1998) advocated that such data collection methods should be qualitative. Yin (2012), however, ascertained that they can be qualitative, quantitative, or mixed, and favours
the latter. Throughout my research design, I referred to all three principle authors. Albeit, I am
guided primarily by the works of Stake and Merriam, because they spoke more to qualitative
only case study research designs, than Yin did.

3.6.1.1 Qualitative case study methodology.

In my study I sought to understand subjective and inter-subjective experiences of
resilience in old age and in the face of poverty and climate disasters, within a specific context.
As such, a case study methodology that utilized only qualitative methods was a natural fit to
address my research question, because a key feature of such methods is to focus on
understanding the participant’s experiences of the phenomenon of interest, through the lens of
the participant and not the researcher (Merriam, 1998). Merriam (1998) explained that qualitative
research is about “understanding the meaning people have constructed, that is, how they make
sense of their world and the experiences they have in the world” (p. 6). Further, qualitative
research is well suited for capturing the complexity of a phenomenon, whereby the end product
of such research is “richly descriptive” (Merriam, 1998, p. 8). The proposed outcome of my
study was to provide a detailed and in-depth picture of older people’s resilience in the face of
poverty and climate disasters, from the perspectives of the participants. To facilitate the vicarious
experience essential to knowledge transfer of the research findings, I employed qualitative data
collection methods. Lastly, from the findings of the two reviews, in Chapter two, I was
encouraged to adopt a qualitative approach to inquiry, because there was a lack of empirical
studies, in the areas of older people’s resilience within the context of disasters and old age
poverty. Specifically, there was a paucity of studies where researchers utilized qualitative
methods that prioritized the voices of older people with lived experience of the phenomenon
under investigation (namely, resilience and old age poverty).
### 3.6.1.2 Limitations of case study methodology.

Flyvberg (2006) suggested that one of the most common limitations of case study research proposed by others is the inability to generalize from one or a small number of cases. Stake (1995) reminded researchers that "the real business of case study is particularization, not generalization" (p. 8). Case study research is not meant for making grand generalizations about a phenomenon or population group. If generalizations are made from case study research, then they are more naturalistic or analytical rather than statistical and probabilistic (Merriam, 1998). Further, Flyvberg (2006) argued that formal generalizations (usually generated from studies with large sample sizes) are not the only "legitimate method of scientific inquiry" and other forms of approaches need to be valued and recognized for its contributions to knowledge building (p. 227). For instance, case study research "is well suited for identifying critical cases or the ‘black swans' because of its in-depth approach: What appears to be ‘white' often turns out on closer examination to be ‘black’" (Flyvberg, 2006, p. 228).

Another limitation of case study research is the "bias towards verification," which questions the rigour involved in such research approaches (Flyvberg, 2006, p. 234). However, as mentioned above, falsification characterizes case study research and not verification. “Falsification is one of the most rigorous tests to which a scientific proposition can be subjected: If just one observation does not fit with the proposition, it is considered not valid generally and must, therefore, be either revised or rejected" (p. 228). Further, researcher's bias towards verification can be inherent in all research methods (qualitative and quantitative). For instance, there are elements of subjectivism when deciding which questionnaire to use (e.g., determining which variables and categories on which to focus) in quantitative studies.
While case study research has various logistical and reporting challenges, many of the criticisms proposed within the literature emerge more from an epistemological position (specifically, from a positivist paradigm) and a misunderstanding of the case study methodology. Like other forms of inquiry, case study methodology has relative strengths and limitations, and “the merits of a particular design are inherently related to the rationale for selecting it as the most appropriate plan for addressing the research problem” (Merriam, 1998, p. 40).

3.6.1.3 Rationale for using case study methodology.

There are three reasons why I selected case study as the most appropriate methodology for answering my research questions. First, this methodology is an approach that explicitly produces context-based knowledge. For example, when reporting case study research, it is necessary to provide a rich, in-depth, and heuristic description of the context along with the phenomenon (Merriam, 1998). Older people’s resilience throughout the disaster management cycle, as I highlighted in Chapter two, is a context-based phenomenon. Utilizing case study methodology allowed me to tease out contextual conditions that were further pertinent to an understanding of what factors and processes drive older people’s resilience during the mitigation phase of disasters.

Within case study methodology there is a focus “on many, if not all, variables present in a single unit” (Merriam, 1998, p. 7). This emphasis on complexity is the second reason why I selected case study methodology. Older people's resilience within the context of disasters is a complex and multi-dimensional phenomenon, yet in many of the empirical studies reviewed in Chapter two researchers aimed to make statistical and probabilistic generalizations about the phenomenon by focusing on only a couple or a small set of influencing variables. In my study I
investigated older people’s resilience through a complexity lens where multiple variables were present and interacting in various ways.

The third and final reason why I selected case study methodology is due to its flexibility with the types of data collection methods a researcher can use and the encouragement to use multiple methods. I utilized multimedia methods (which included Photovoice [PV] and Videovoice [VV]) of data collection alongside with more traditional methods (which included interviews and focus groups). The visual and textual data produced by these methods contributed to the development of the research products (a research brief and short video, which are described in detail in Chapter five) that created a more heuristic experience for the audiences, which is an aim of case study research reports (Merriam, 1998).

3.6.1.4 Instrumental single case study.

There are several variants of case study research, which are primarily distinguished "by the intent of the case analysis" and the number of cases studied (Creswell, Hanson, Plano-Clark, & Morales, 2007, p. 246). Stake (1995) distinguished between three types of case studies: intrinsic, single instrumental, and collective instrumental. An intrinsic case study is best suited to highlight an unusual or unique case, where the primary focus is on understanding the case itself and not to illustrate a specific phenomenon (Stake, 1995). Whereas in instrumental case studies (whether single or collective) the case is secondary, and the primary focus is on a particular issue or concern (Stake, 1995). In an instrumental case study, the case "is examined mainly to provide insight into an issue or to redraw a generalization. The case, in this type, is of secondary interest, it plays a supportive role, and it facilitates our understanding of something else" (p. 437).

I selected an instrumental case study design because the focus of my research was to illustrate a distinct phenomenon: older women’s resilience within the context of disasters.
Additionally, I chose a single case rather than multiple cases to highlight resilience for practical reasons, which included the limited time, resources, and control in selecting different cases across varying contexts. For instance, I felt the time frame of my field research was conducive only to focusing on one disaster-affected community (especially when considering the time necessary, as an outsider, for building relationships with participants and the wider community, as dictated by PAR).

3.6.1.5 Defining the case/case selection.

Case selection "is the primordial task of the case study researcher" (Seawright & Gerring, 2008, p. 294). A case can be "a noun, a thing, an entity; it is seldom a verb, a participle, a functioning" (Stake, 2006, p. 1). It can be a person, a family, a social group, a program, intervention, or an organization, for example. A case is a bounded system. For a case to be bound, data collection must be finite, whereby "there is a limit to the number of people involved who could be interviewed or a finite number amount of time for observations" (Merriam, 1998, p. 27). "If there is no end, actually or theoretically, to the number of people who could be interviewed or to observations that could be conducted," then it is not considered to be a bounded case (p. 27). Stake (1995) suggested that a case is selected based on the criterion that it maximizes the opportunity for learning. In my study, my research objective was to understand the resilience of a sub-cohort of older people – more specifically older women living in poverty, who are widowed, head of household, and living in a disaster-affected community in the Philippines. Given this objective, the case that maximized the opportunity for learning is a group of key informants/older people who self-identified as a member of this sub-cohort.
3.6.2 Sampling within the case.

While there is a finite number of key informants I could have interviewed for my study, I did not plan to interview all of them. Thus, as suggested by Merriam (1998), I conducted sampling within the case. Specifically, I employed purposive sampling. This sampling technique is used when “the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (p. 61). Adopting clear selection criteria is essential for purposive sampling. Criteria that was used in this study for selection included respondents who were: i) 50 years of age and older; ii) living in poverty; iii) widowed women; iv) head of the household; and v) living in the same disaster-affected community, during the time data was collected. I ensured that the participants met all criteria during the extended informed consent process (specifically during the one-to-one individual sessions where I met the participants in their homes).

3.6.2.1 Criterion one: Participants were 50 years of age and older.

In my study, an older person was defined as 50 years of age and over. Sixty (or 65) years of age is the standard benchmark for identifying an older person (UNFPA & HAI, 2012). Albeit, this definition is solely based on chronological age, which ignores the role of culture, politics, history, and economics in the meaning and understanding of old age (Gorman, 2000). For example, in one report by the WHO (2002), which focused on the impact of AIDS on older people in Zimbabwe, the definition of an older person was an individual who is 50 years of age or older. The WHO (2002) provided two reasons why this benchmark age was appropriate for that specific context: a) "in most of the poor economies, the burden of survival puts people at a greater disadvantage than in rich countries, making them to age prematurely" and b) "in most African traditions the title "older person" is socially dictated by one's role in society: for
example- becoming a grandparent confers such a title and the added respectability, regardless of the chronological age" (p. 5). The WHO (2002) highlighted in their report the need to reconsider the age benchmarks for lower income countries, and this was a reason why I chose to adopt a lower age criterion for my study, as the Philippines is a lower-middle income country with limited welfare provisions for the older population (details of the welfare context for older people in the Philippines and the ages of the participants are presented in Chapter four).

**3.6.2.2 Criterion two: Participants were living in poverty.**

Another criterion was that the key-informants were living in poverty. I was encouraged by the findings from the literature review in Chapter two (specifically on old age poverty) to adopt a version of the MPI as the poverty measure in my study. The MPI measures poverty across three dimensions: education (two indicators), living standards (six indicators), and health (two indicators). I included all three dimensions in my study, but the indicators for health differed in my study (I explain why later in this section). Income was not included in the MPI, because the UNDP suggested that “including income as an indicator imply double counting people’s deprivations. The material standard of living dimension of the MPI acts as a proxy for economic wellbeing” (UNDP, n.d.). Albeit, the UNDP (n.d.) noted:

> an interesting analysis would be to explore the overlap between income poverty and multidimensional poverty, i.e. to distinguish those who are income poor and MPI poor versus those who are poor according to one concept only or those who are not poor at all.

(para. 7)

Therefore, for my study I decided to include four dimensions of poverty: education, living standards, health, and income, to explore such overlaps.
Regarding income, I adopted the World Bank’s (2015) term "moderate poverty," defined as living on less than USD 2.50/day (para. 7). The UN defined “extreme poverty” as living on less than USD 1.25/day (UN General Assembly, 2014, p. 4). The Philippine Statistics Authority’s (PSA) poverty threshold is an annual per capita of PHP (Philippine Pesos) 16,841 (equivalent to approximately USD 1.04/day) (PSA Coordination Board, 2009). I adopted a higher poverty threshold than that of the UN and PSA because it was highlighted in the literature review from Chapter two that the extent of old age poverty is underestimated, and that poverty thresholds for older people may need to be higher than those established for the general population.

Regarding education and standard of living I adopted the same eight indicators as espoused by the MPI (which was previously noted in Chapter two), which included deprived if: any member of the household has not completed six years of schooling or more, a child's schooling was disrupted or halted (from years 1-8), the household cooked with dung, wood, or coal, the household lacked improved sanitation (or shared improved sanitation facilities with others), the household lacked access to safe drinking water (or has to travel 30 minutes or more, roundtrip, to access safe drinking water), the household has no electricity, the household has dirt, dung, or sand as floor, and the household did not own more than one modern household asset (which included a radio, TV, telephone, bike, motorbike, refrigerator, and car) (UNDP & OPHI, 2016).

Regarding health, I did not use the MPI’s indicators of child mortality (in the last five years) and adult or child malnutrition (having a BMI of less than 18.5% for an adult and shorter than a height-for-age z score as per the WHO standards) for a couple of reasons. Firstly, I was not comfortable with asking and not sure how comfortable participants would be responding to
questioning as to whether or not a child in their household has died and also of taking their physical measurements (for their BMI) prior to any trust or rapport building. Secondly, all the indicators discussed thus far (related to income, education, and standard of living) were objective measures and as showcased in the literature review in Chapter two there was a need to integrate subjective measures in a multi-dimensional concept of old age poverty. Therefore, I replaced these objective measures with a subjective one by asking the following question: How do you feel about your overall health? With an addendum asking them to explain their response. If a participant mentioned any chronic issues/problems (e.g., a chronic disease or daily pains) related to their health I would note that as health deprived. I recognize that this is an oversimplification of measuring health poverty; however, this line of inquiry enabled me to explore further with the participants their health experiences, perspectives, ideas, and behaviours through the interviews (e.g., individual interview four), and such findings (presented in Chapter four) provided a better understanding of the participants’ health statuses and profiles.

The original MPI has ten indicators and being deprived in three or more indicators connotes poverty, being deprived in two or more (but less than three) entails near poverty and being deprived in five or more indicates severe poverty. For my study I also had ten indicators which included the same two educational indicators as the MPI, the same six living standards indicators as the MPI, one income indicator (living on less than USD 2.50/day), and one subjective health indicator. Therefore, in my study poverty was also defined in the same way as the MPI, whereby deprivation in three or more indicators connotated poverty, and the greater number of indicators revealed a greater severity of poverty. Participants had to be deprived in at least three indicators to be able to participate in my study. As mentioned earlier, I utilized the extended informed consent process as an opportunity to ensure that all participants met all
criteria. In Chapter four, I present the poverty status of each participant across these four dimensions.

**3.6.2.3 Criterion three: Widowed women.**

In my study the participants were widowed women. While the literature reviews in Chapter two, overall, point to a paucity of literature whereby the connections between gender, marital status, older people’s resilience, and old age poverty were explored, there was sufficient evidence that suggested widowed women experienced less favourable outcomes post-disaster and were more likely to experience old age poverty. Further, widowed women who were poor were more likely to experience negative health-related outcomes (e.g., physical disability, lower mental health status or decreased accessed to health care utilization).

**3.6.2.4 Criterion four: Participants were head of households.**

The participants must also have been head of households, which meant that they were the main breadwinner and decision-maker. Like gender and marital status, the evidence regarding the connections between living arrangements, older people’s resilience, and old age poverty were limited. Albeit, of the studies (included in the two reviews) where such connections were explored, researchers found that living arrangements were relevant, whereby older people living alone were more likely to experience negative outcomes in both the pre- and post-disaster context and to experience old age poverty (or greater challenges and negative outcomes related to poverty). The decision to recruit based on head of household rather than living alone was made, because I was informed by the hosting organization (COSE) that it was difficult to locate participants (even if it is just four, which is the sample size of the study) who lived alone and lived in the same community, which was the final criterion. The norm for older widowed women was to live with family members even if they were considered the head of the household.
3.6.2.5 **Criterion five: Participants lived in the same disaster-affected community in the Philippines.**

Since, my study was a single instrumental case study, with one research site and context, I recruited the participants from the same community. In my study, Boon, Cottrell, King, Stevenson, and Millar's (2012) definition of community was adopted: "those who live in a similar region; those who relate to each other as a community; and those who come together in response to an issue such as a disaster" (p. 383). In my study a disaster-affected community was described as a community, which has experienced "geographical and physical destruction" from a climate-related disaster, which has caused "economic, environmental and human loss" (p. 384). Climate-related disasters include "storms," "floods and wet mass movements," and "extreme temperature changes, such as drought and wildfires" (ADB, 2013, p. 7). It is important to note, again (as it was identified in Chapter two), that while the study site was conducted in a disaster-affected community, it was three-years post-disaster, whereby the community was largely out of the response phase of the disaster management cycle (HAI & COSE, 2014). Thus, the findings primarily inform older people’s resilience in the mitigation phase and as well in the recovery phase, as these two can overlap in terms of the focus on long-term development.

3.6.2.6 **Sample size.**

Yin (2012) stated, that "unlike experimental research designs, where power analysis may be conducted to formulate the necessary sample size, no such formulas exist for case studies" (p. 8-9). Stake (1995) and Merriam (1998) echoed this idea and do not indicate any specific number required for case study research. Albeit, case study research is usually considered “small-N” research with the smallest acceptable sample size as one (Seawright & Gerring, 2008, p. 301).
My sample size was four. I chose to select a size larger than one because my research objective was not only to capture the particulars and complexity of older people’s resilience, but also the heterogeneity of the phenomenon. Thus, I wanted to include, what Hutchinson (2011) suggested, some level of "balance and variety" (p. 6). Specifically, regarding age, older people are often categorized into one broad age group (e.g., 60 years of age and older), yet there can be significant generational differences between an older person who is age 60 and one who is 80 years of age, for example. Initially, I had planned to include four broad ranges of years, whereas each key informant would be an older person who was in either her 50s, 60s, 70s, or 80s or above. Albeit, in the end, three of the participants were in their 60s and one in her 80s. In working with the hosting agency, COSE, these were the participants who were introduced to me and invited to the orientation, despite my initial request for age variety. I did not wish to turn any of the participants away, since they already met all other criteria. Thus, I decided if they continued to express interest in participating, then this specific recruitment goal was not essential. At the same time, the sample size of four was selected for pragmatic reasons. I believed it was a number that was manageable based on the planned contact time (detailed later in section 3.7) with each key informant and as the only field researcher. I provide in-depth details of the participants who were recruited, in Chapter four, as they made up the case.

3.6.3 Research site.

The research site for my case study was Apitong, Tacloban City, Philippines. Apitong, a community within Tacloban City, was selected because it was deeply affected by the 2013 typhoon Haiyan disaster (Lagmay et al., 2015). On November 8th, 2013, typhoon Haiyan (or locally called typhoon Yolanda) struck the central Philippine island region. With a diameter of 600 kilometres and sustained winds as high as 315 kilometre per hour (kph), Haiyan was a
category five typhoon on the Saffir-Simpson hurricane scale. Lagmay and colleagues (2015) identified the magnitude of damage resulting from this category of typhoon:

\[ \text{a [category five] typhoon can cause catastrophic damage, a high percentage of destruction of framed houses, total roof failure and wall collapse, isolation of residential areas due to fallen trees and power poles, and power outages that could last for weeks and possibly months.} \]  

Following typhoon Haiyan were the deadly storm surges, which reached heights between four to five metres in Tacloban City. Tacloban was the city in the central region with the most fatalities (2,678), which accounted for approximately 40% of the total recorded disaster-related deaths (6293) (HAI & COSE, 2014).

Apitong was selected because it was one of the communities included in the typhoon Yolanda Emergency Response and Rehabilitation Program (HAI & COSE, 2014). This program was organized and implemented by a partnership between HAI and COSE, who were one of the few NGOs that focused explicitly on supporting older people post-typhoon Haiyan. The HelpAge-COSE program had several stages. First, there was the emergency response phase, which involved relief and assistance during the first few months after the typhoon (e.g., providing emergency food packages, emergency shelter kits, cash transfers, psychological and social support, and health exams). Then, there was the early recovery stage, which included activities that focused on the rebuilding of livelihoods, access to safe and secure shelter, access to basic health care, and the psychological and social well-being of older people. Lastly, the program transitioned to support long-term recovery with a focus on social development.

Specifically, the development and strengthening of older people organizations (OPOs) or sometimes called Older Persons Associations (OPAs), which are community-based groups that
rely on mutual and peer-aid. OPO’s activities and programs vary and can include focuses on health, financial, and social well-being, for example.

In 2011, I collaborated with COSE during my research project: *Exploring older people’s perspectives of community organizing: A photovoice study in the Philippines* (Kwan & Walsh, 2013). During that time COSE had assisted me in selecting a research site and recruitment. I maintained relationships with this agency since then. For my doctoral study, COSE was also my bridge to access a research site and key informants.

**3.6.4 Participatory action research and rationale.**

For the reasons delineated earlier, I decided that case study methodology was the most suitable for answering the research questions. However, at the same time, the methodology fell short from offering guidance regarding how to actualize my values and beliefs, as a feminist pragmatist and social work researcher, within the research enterprise. I found that direction in PAR. Some of the text of the published manuscript, *Ethical Issues in Conducting Community-Based Participatory Research: A Narrative Review of the Literature*, was integrated below in this section.

Put simply, "PAR synthesizes investigation, education, and action" (Healy, 2001, p. 94). There are multiple variants of PAR, including participatory research, participatory action research, feminist participatory research, action research, and collaborative inquiry (Florczak, 2015). Albeit, all variations share a commitment to i) the concept of community or collective identification, ii) the democratization of knowledge production, and iii) the idea that the research process is geared toward social action.

Within PAR studies the primary unit(s) are communities of identity, whereby a community can be bound by geography (e.g., a neighbourhood), by shared identities that are
socially constructed (e.g., ethnicity, age, gender, ability, or sexual orientation), and by shared values, norms, and interests (Carter, Banks, Armstrong, Kindon, & Burkett, 2013). PAR is about knowledge building and enhancing a sense of collective identity and community through mutual engagement.

The democratization of knowledge production entails collaboration and equal partnership between researchers and participants (Carter et al., 2013). This principle is what distinguishes PAR from other methodologies. Within PAR studies, the intention is that participants share equal responsibilities, decision-making power, and ownership of the research study.

PAR is an action-oriented methodology, and as such, research activities include mobilizing research participants and others to take social action based on the knowledge built throughout the research process (Minkler, 2004). Dawson and Sinwell (2012) explained that those who engage in PAR “are social movement researchers who employ research techniques aimed at exposing social inequalities and who seek to actively promote progressive social change” (p. 178).

It is these three core tenants of PAR that are aligned with the values and beliefs of feminist pragmatism (as outlined at the beginning of the chapter in section 3.3). As well, PAR is an approach that is widely endorsed among social work researchers, as it is aligned with the profession’s core mission, values, and principles; Namely, the pursuit of social justice, self-determination, empowerment, and capacity building (Branom, 2012). PAR, proposed as an alternative to traditional top-down methodologies, is often heralded as a transformative grassroots approach, which researchers can use to facilitate social change particularly for disadvantaged groups and communities (Branom, 2012).
In considering the essential elements of PAR-based studies, I acknowledge that my study does not adequately represent a PAR-based research program. For instance, I was the primary decision-maker in the research process, I decided on the topic, research questions, research design, data analysis strategy, and research products. Furthermore, the imperative of my research study was to satisfy the expectations of a doctoral program and in the end to produce this dissertation. With my personal agenda and timeline in mind and the constraints of the study (being part of the requirements of my doctoral program), I decided it was not the appropriate time and context to conduct such a research program. Nonetheless, I committed to integrating some elements of PAR.

Firstly, to commit to collaborative knowledge building, I planned and facilitated four workshop training sessions. The workshops were opportunities for participants to learn the data collection methods of PV/VV and peer interviewing so that they were able to participate in data collection and analysis. Secondly, I co-planned and co-developed research products that were accessible, locally, to the community where the research was conducted. One of the research products was a short video in Waray, which was the local dialect in the community.

3.7 Data Collection

For my study, I used the following data collection methods: PV/VV, semi-structured interviews (including one-to-one, focus group, and peer interviews), observation, and document review. In the next section, I describe each of the data collection methods and explain the rationale for utilizing each method. Also, I outline the data collection protocol of my study, which include any modifications I made.
3.7.1 Photovoice and Videovoice.

PV and VV are both multimedia methods that link research to social action (Blair & Minkler, 2006). Using the PV method means that participants are provided with cameras, and use photography to illustrate, individually, and collectively their issues and challenges (Wang & Burris, 1997). There are three objectives of the PV method: i) enable people to record and reflect their community's strengths and concerns; ii) promote critical dialogue and knowledge about important core issues through group discussions of photographs; and iii) to reach policy makers and people who can be mobilized for change. VV is a method that follows the same principles of PV and has the same objectives (Catalani, Veneziale, Campbell, Herbst, & Butler, 2012). It builds on the PV method, by adding movement, audio and sequential narrative to the participatory process. VV also allows for different ways to disseminate findings, such as theatre, television, computers, and mobile devices.

The participatory nature of both PV and VV is a strength of the methods, and a reason I included such methods in my study. Harley (2012) argued that participatory methods, such as PV, are "essential to overcome power imbalances between researcher and participants in research, [because] rather than situating researchers as professionals acting upon rural, often unschooled, community-members as objects; [for example], the use of creative, multiple participatory tools give participants a voice" (p. 323). By providing the cameras to participants to take photographs and engaging them in dialogue, they become "co-researchers whose insider 'local knowledge' is valued for sense-making" (Babbie & Mouton, 1998, p. 64). Limitations of the methods include "the difficulty of interpreting photographs [and videos] and possible subjectiveness of the photographs [and videos] (e.g., people might self-censor or misrepresent for their interests)" (Harley, 2015, p. 323).
3.7.2 Interviews.

In social science research, interviews are one of the most commonly used data collection methods (Alshenqeeti, 2014). A simple definition of an interview is that they are a conversation between people, “but a conversation with a purpose” (Merriam, 1998, p. 71). I employed interviews because this method is interactive (unlike questionnaires for example) and allow for more elicitation of narrative and in-depth data. Further, I used interviews because I wanted to gather unobservable data, which included the ideas, feelings, and perspectives of the informants. Interviews can be conducted in various ways, and I employed semi-structured one-to-one, focus group, and peer interviews, each of which is explained in more detail below.

In semi-structured interviews, “all the questions are more flexibly worded, or the interview is a mix of more and less structured questions” (Merriam, 1998, p. 74). This type of interview has pre-determined questions but allows for and encourages “other questions to emerge from dialogue” (Whiting, 2008, p. 36). It is a balance between structured and unstructured types of interviews. Structured interviews (e.g., oral forms of questionnaires) were not a good fit for my study, because the rigidity would not allow me to tap into "the participants' perspectives and understandings of the world" but rather force participants to react to my "preconceived notions of the world" (Merriam, 1998, p. 74). Merriam (1998) asserted that unstructured interviews are "useful when the researcher does not know enough about a phenomenon to ask relevant questions" (p. 75). I chose not to utilize this type of interview because I believed the comprehensive literature reviews conducted in Chapter two provided sufficient evidence-based knowledge to generate some pre-determined questions.

I utilized a mix of semi-structured one-to-one, focus group, and peer interviews because these methods combined capitalized on the strengths and mitigated the drawbacks of each
technique alone. For instance, one-on-one interviews are thought to produce a more intimate and comfortable environment that ensures confidentiality, and where the interviewee is more likely to open up and discuss topics that they may not, as likely, do in a group setting (Alshenqeeti, 2014). Furthermore, in one-to-one interviews it is easier to probe and seek clarification from interviewees, thus providing more in-depth and quality data. On the other hand, while confidentiality cannot be ensured in focus group interviews and group dynamics are more complicated to manage, ideas can develop collectively through the process of dissent and consensus throughout the discussion, that may not occur through one-to-one interviews (Kitzinger, 1995). Additionally, within a focus group setting, there are more opportunities for participants to explore the structural dimension of their challenges and collective solutions to address their problems. Kitzinger (1995) provided an example:

... group dynamics can allow for a shift from personal, self-blaming psychological explanations (I’m stupid not to have understood what the doctor was telling me”; “I should have been stronger –I should have asked the right questions”) to the exploration of structural solutions (“If we’ve all felt confused about what we’ve been told maybe having a leaflet would help, or what about being able to take away a tape recording of the consultation?”). (p. 311)

Lastly, peer interviews are interviews conducted by people that have a shared identity and lived experiences with the interviewees (Devotta et al., 2016). Because of this insider position, peer interviewers have "a potential to discover knowledge that may otherwise go unnoticed by the researcher,” thus enhancing the potential quality of the data (p. 665). Peer interviews is a data collection method that is aligned with participatory research, as it commits to "the democratization of knowledge production" and the capacity building of the peer interviewers (p.
The benefits of using this data collection method include access to hard-to-reach populations, developing the skills and self-esteem of peer interviewers, increasing the comfort level of the interviewee to discuss sensitive topics, and decreasing the effect of social desirability bias (which is when interviewees respond based on what they think the researcher wants to hear) (Warr, Mann, & Tacticos, 2011). Challenges of employing this method include the time and resources it takes to train and supervise the peer interviewers (e.g., especially ensuring their self-care). Peer interviews were employed in my study because it was an opportunity for capacity building, triangulation, and this approach provided an opportunity for the peer interviewers to gain more insight/knowledge into their own experiences, ideas, and perspectives about resilience (e.g., how their own experiences, ideas, and perspectives of resilience were similar or different from the interviewee).

### 3.7.3 Observation.

Research observations differ from how we observe in our everyday life; they serve a specific research purpose, are planned, are recorded, and are subjected to checks on trustworthiness or rigour (Merriam, 1998). Additionally, research observations differ from interviews in that the former usually occurs "in the natural field setting instead of a location designated for the purpose of interviewing" (p. 94). What or who is being observed can vary, and include, for example, the context (e.g., physical setting/environment, economic context, and socio-cultural context), the participants, activities and interactions, conversations, subtle factors, and the researcher's behaviours. A limitation of observation is that it is highly subjective as it relies on human perception, which is selective. Thus, observation is not commonly used on its own but in conjunction with other methods, such as interviews and document collection.
I included research observation as a data collection method in my study to contribute to an understanding of the context, “to provide specific incidents, behaviours, and so on that can be used as reference points for subsequent interviews,” and for triangulation purposes (Merriam, 1998, p. 96). I recorded my observations in a written format (through field notes) and visual form (through photos and videos I took with my camera). Visual data (e.g., photos and videos) can help to describe the physical setting in a way that text alone cannot (Bryne, 2014), and this was the reason why I also used my camera to document my observations. Researchers reporting on case study research aim to provide vicarious experiences for the reader, and a good description of the physical setting/environment is instrumental to "give them a sense of ‘being there!’" (Stake, 1995, p. 63).

3.7.4 Document review.

Document review is a data collection method whereby the researcher collects existing documents that are relevant to the research (Merriam, 1998). Documents can include "a wide range of written, visual, and physical material relevant to the study at hand" (p. 12). The accessibility of documents can vary, for instance, they can be documents internal to an organization (e.g., agency records, meeting minutes), personal documents of an individual (e.g., diaries), or they can be public records (e.g., government documents, newspapers). A strength of including document review as a data collection method is that it is a relatively easy, low-cost, and unobtrusive way to collect data. This attribute makes it a great addition to other data collection methods in providing further insight into a case, phenomenon, and context. Albeit, documents can sometimes be outdated, disorganized, or fragmentary, and "have built-in biases that the researcher may not be aware of" thus the authenticity and accuracy may be questioned (Merriam, 1998, p. 125).
I used document review in conjunction with the other data collection methods, not only to enhance rigour through triangulation of data as Merriam (1998) suggested, but also because I believed that the documents could provide me with information that was not so easily obtainable or accurate through PV/VV, interviews, and observations. For example, some of the documents I reviewed included research briefs, advocacy briefs, magazines, articles, and reports created by COSE. Such documents highlighted "real-world issues and day-to-day concerns," (Merriam, 1998, p. 126) which helped to build a better picture of the economic, cultural, social, and political context (mainly related to older people in the Philippines), for example, that was important to understanding the case. Additionally, I believed that reviewing such documents (especially early on during the data collection stage) would stimulate further thoughts “about important questions to pursue through direct observations and interviewing” (Patton, 1990, p. 233).

3.8 Data Collection Process

Data collection was implemented between March 9th and October 7th, 2016. For the first month and a half, I collected data using only observation and document review. Subsequently, I continued to use both approaches until October 7th. After I recruited the four participants and verbal informed consent (refer to informed consent script in Appendix H) was obtained (April 11th), I also began to employ PV/VV and interviews. In the next section, I first explain the data collection process for observation and document review, and then I outline the process for the PV/VV and interviews.

3.8.1 Observation and document review process.

Merriam (1998) asserted that “there is no ideal amount of time to spend observing, nor is there one preferred pattern of observation” (p. 98). While my observations changed over the data
collection period (e.g., regarding the length of observation time, and what or who was being observed), I was consistent in writing field notes at least once a week and ensured that 2-3 main points of observation were recorded that were relevant to the research questions. The field notes were first drafted in a notebook and then transferred to a word document (titled field notes) on my laptop. The word document included all the field notes taken. Also, I occasionally took photos and videos with my phone camera, which I then transferred into a separate file folder (titled researcher-generated photos and videos) on my laptop.

Data via observation was collected in a variety of settings, which included events and meetings such as: a half-day conference in Manila regarding universal social pension in the Philippines, DRR committee meetings in two communities in Tacloban City, monthly meetings organized by the OPO of Apitong, informal meetings with the participants and other community members, and research-related events and activities (e.g., orientation, PV/VV training sessions, interviews, and focus groups). In total, the data collected from observation were field notes (consisting of 10 pages and 5139 words), photos \(n=28\), and videos \(n=3\), with each being less than a minute).

I collected documents in various ways. At all the formal events and meetings, I attended, I asked to have paper or electronic copies of relevant documents. For instance, I was invited by a COSE staff member to observe a couple of DRR meetings in Tacloban City. The staff member was the facilitator of the meetings and had copies of the agenda, which I included as one of my documents. Other examples of documents I collected were all the reports and leaflets handed out during the half-day conference regarding universal social pension in the Philippines. Additionally, I asked COSE if they had any documents (e.g., agency reports) that were relevant and helpful to my research topic. They provided me with several agency reports that documented
the support and services provided to older people through the post-typhoon HelpAge COSE program. Further, a research brief on how the disruption of critical service systems (e.g., health, infrastructure, transport, water, energy, and social pensions) during disasters can impact older people’s resilience, was provided to me. Data were extracted from the documents based on whether they helped to describe the context pertinent to older people’s well-being in the Philippines (e.g., the policies regarding social pension). All the electronic copies were saved into a file folder (titled documents to review). All the soft copies were scanned and transferred into the same file folder. A total of 13 documents were collected for review (see Appendix I for the list of documents). The results from the data observation notes and document reviews are reported in Chapter four.

3.8.2 Photovoice/Videovoice and interviews process.

The PV/VV and interview data collection processes included workshop training sessions \((n=4)\), individual interviews \((n=24)\), focus group interviews \((n=5)\), and peer interviews \((n=3)\). Each workshop and interview had a specific topic and purpose.

3.8.2.1 Workshops one, two, and three.

Before collecting data using PV/VV and interviews, it was necessary to facilitate several workshop training sessions with the participants. Three workshops, lasting between two to three hours each, were conducted between April 16 to 30, 2016. The topics covered in the workshops included an overview of the PV/VV method, basic camera use (e.g., how to take photos and videos), and ethics surrounding photo/video-taking. These sessions were not audio-recorded.

An important note to consider, regarding the use of data collection technologies (namely, the camera), was the charging of the camera and the use of electricity, which was brought to my attention during the workshops. The cameras I provided for the participants to use were not
battery operated and thus required power to charge them. While the participants did have access to electricity in their homes, it was an additional cost to them to continue charging the cameras. Thus, it was necessary for me to regularly arrange times with the participants to pick up the camera, charge it, then return it for their continued use during the entire data collection period. A positive unintended effect of this was an opportunity to meet with the participants in more informal ways that enhanced trust and rapport with them. Post field research, the cameras were not given to the participants because of the relatively high associated costs to maintain them (e.g., charging the batteries, developing film, etc.). Instead, the cameras were donated to COSE for use in their community organizing and advocacy programs.

3.8.2.2 Individual interview one and focus group interview one.

To gain insight into the local context, the community of Apitong was the topic of discussion for individual interview one and focus group one. A week prior to individual interview one and focus group one, participants were asked to take photos \((n=3-4)\) and videos \((n=1-2)\) (each under a minute) of people, places, and things that best described their community (e.g., what were the livelihoods of individuals, where do people gather in the community, and who were the influential community leaders). They were told that there was no right or wrong answer, and it was a matter of their own personal perspective.

At individual interview one, each participant was asked to share her photos and videos and how these products gave a better picture and understanding of Apitong. At the end of the interview, they were asked to select a photo or video to share and talk about when we met the following week for focus group one. The purpose of the group interview was threefold: i) for participants to discuss what was unique and shared between their responses to each assignment, ii) for new knowledge and ideas about the community to emerge, and iii) an opportunity for me
to ask follow-up questions based on the responses of individual interview one. Individual interview one and focus group one were audio-recorded, translated, and transcribed (details of translation and transcription are provided later in section 3.9 of this chapter). See Appendix J for the questions and probes for individual interview one and focus group one.

3.8.2.3 Individual interview two and focus group two.

Factors and processes that have helped or hindered the participants during and after disasters were the topics of discussion in individual interview two and focus group two. The purpose of the interviews was to gain an initial and broad overview of resilience within the context of disasters. The broad questions included: What has helped you the most to build back, after disasters? Who has helped you the most in building back after disasters? What resources have been provided to you to build back after disasters? and How do you think your beliefs, attitudes, and personal characteristics have helped you to build back after disasters? The responses to these questions helped to inform more distinct questions for individual interview four, five, and six.

These two interviews followed the same process as individual interview one and focus groups one (e.g., one week to take photos and videos, share photos and videos, discuss individually, and then collectively), but with different questions (see Appendix K for individual interview two and focus group two guides). Individual interview two and focus group two were audio-recorded, translated, and then transcribed.

3.8.2.4 Individual interview three.

Personal background information and life stories were the topics of individual interview three. The interview began with a structured set of questions to obtain demographic information (e.g., age, marital status, living arrangements, source(s) of livelihood or employment, household
income, and the highest level of education obtained). Then, I conducted a life review type of interview (Butler, 1974) (see Appendix L for the individual interview three guide). Robert Butler (1974), a foundational gerontologist, championed the idea of a life review, which is the process of self-reflection on the development of personal life histories, with older people. The purpose of facilitating the life review interview was two-fold, to gain further insight into the participants' personal and historical contexts, and to provide an opportunity for building rapport with the participants. Unlike individual interview one and two, a follow-up focus group was not conducted for individual interview three because the information collected were more personal and intimate. Individual interview three was audio-recorded, translated, and transcribed.

**3.8.2.5 Workshop four and focus group three.**

In addition to the researcher-led interviews, three peer interviews were conducted. The peer interviews were placed mid-way into the data collection period (approximately July 16th, 2017), so that participants had experienced several researcher-led interviews to have gained a better understanding of how to conduct one themselves. Two weeks before the peer interviews took place, I facilitated a workshop with the participants on how to do a peer interview. The workshop encompassed a discussion on informed consent, ethics, and what questions to include in the peer interview guide, which was co-developed with the participants (see Appendix M). Albeit, the topic was still related to factors and processes that help or hinder the interviewees’ resilience within the context of disasters. The workshop was not audio-recorded.

The four participants were paired up to conduct a peer interview and provided with notebooks and pens to document their findings, rather than using an audio-recording device. Participants were provided with two weeks to do the peer interview, and they would share their results in focus group three (see Appendix M for the focus group three guide as well), which was
audio-recorded, translated, and transcribed. While, the quality of the data may not be as accurate and subjective to the biases of the participants, a purpose of the peer interviews was to inform new insights about resilience that may not have occurred through the previous individual and group interviews.

3.8.2.6 Individual interview four, five, and six.

The topics for individual interview four, five, and six were related to: health; housing and land tenure; and relationships and culture, respectively. Mainly, how these topics were related to resilience within the context of disasters. For instance, some of the questions asked regarding housing included: How was your house affected from the disaster (specifically, typhoon Haiyan)? Who helped you to rebuild your house, and how did they help? Do you feel safe in your house if another disaster were to occur? Please explain. See Appendix N for all the questions and probes for individual interview four, five, and six. These topics were chosen based on the literature review findings from Chapter two and from further probing after I conducted a preliminary analysis of the transcripts of the previous interviews. The initial analysis highlighted that these topics were discussed across all four participants. All three interviews were audio-recorded, translated, and transcribed.

3.8.2.7 Focus group four and focus group five.

I utilized both focus group four and five as a way to ensure the accuracy of the findings. During focus group four, I presented the results of my preliminary analysis of the key factors and processes that influence the participants’ resilience within the context of disasters. We discussed the accuracy of the themes and other emergent ideas related to older people’s resilience within the context of disasters. The primary purpose of focus group four was to conduct a member-check, ensure that the themes were accurate, and make any changes necessary (I discuss
member-checks in more detail, later in this chapter, in section 3.11). The discussion from focus group four was used to help create the planning and writing of the script for the short video. Focus group four was audio-recorded, translated, and transcribed.

The aim of focus group five was for the participants and I to review and revise the first draft of the co-created video, as it would be screened at a local community event. This event was co-organized by myself, the participants, and other members of the OPO (the details of the event are described in Chapter five). Between focus group four and five, I met with the participants to review the script; we decided together who wanted to contribute to which part of the script; and recorded the video. Focus group five was audio-recorded, translated, and transcribed. See Appendix O for the focus group four and five guides.

From employing PV/VV and interviews, there was a total of 29 audio recordings, which were transferred into a file folder titled audio recordings from interviews. Additionally, a total of 42 photos and five videos were taken by the participants, which were stored in a separate file folder on my laptop titled participant-generated photos and videos. Albeit, all the videos were made by only one participant, as she was most comfortable with using the video mode. The other participants chose to take photos only, which prompted me to consider, for future studies, the need for additional time to be allotted for participants to learn and practice how to use advanced functions of the camera.

3.9 Translator

My study was considered a cross-language research project, whereby a language barrier existed between myself (the researcher) and the participants (Squires, 2008). A translator was used to mediate this language barrier. Only one translator was used, and she did all the translation during and transcription for the interviews and workshops (see Appendix P for the
signed confidentiality agreement). She was a college student (and her topic of study was in Education) who lived with her family in Apitong (the community where the participants also lived). I paid her an hourly wage of PHP 175 (approximately CAD 5), and the hours she worked per week varied between 3 to 21 hours (the hours were higher when transcription was required in addition to translation services). I wanted to ensure a fair wage for her work and time, and to at least double the minimum wage. The Philippines sets a daily minimum wage (rather than hourly), which is PHP 491 (approximately CAD 14/day) for non-agricultural sector workers. I divided the minimum daily wage by eight hours, and multiplied it by two, whereby the result was PHP 122.75/hour (approximately CAD 3.50/hour). I decided that within my research budget I was able to offer her a bit more, so that was why the hourly wage was set to PHP 175 (approximately CAD 5). She was known to the participants, and they mentioned several times throughout the research process (when prompted to discuss in the interviews and focus groups, how they felt about their participation thus far) how grateful they felt that she was the translator to assist them as they felt comfortable with her. Furthermore, from my field notes I had observed that the participants seemed more relaxed when the translator was present, rather than being just alone with me.

Temple (2002) argued that in cross-language studies, the translators are “ghostwriters – there, but generally unacknowledged” (p. 846). They are commonly perceived, in the literature, as holding only a technical and neutral role, where their task simply involves exchanging words from one language to another. Initially, this was the paradigm in which I viewed the translation process and I did not reflect beyond the technical role of the translator.

I had perceived translation in my study to be straightforward, whereby I instructed the translator to utilize a single-translation method and do the best she could in translating verbatim
This process entailed the data to be translated from the source language (Waray) to the target language (English). I had not utilized back-translation due to limited resources and time, even though such a method is considered the gold standard and able to "potentially minimize inaccuracies in translation," (Sutrisno, Nguyen, & Tangen, 2014, p. 1340). This approach to translation involves two translators, whereby one will translate the data from the source language to the target language, and then the other translator will translate that transcript (in the target language) back to the source language, without having reviewed the original transcript.

Early on during data collection, I encountered my first challenge with the translator. I had received one of the first transcripts of a one-to-one interview. The transcript was extremely brief compared to my recollection of the interview (drawing from the notes I wrote afterward about the length of time of the interview and the themes discussed), and as I reviewed it, I realized some elements were missing. I met with the translator to discuss this discrepancy; she advised me that she had adjusted the conversation as she believed that the participant was not answering some of my questions ‘correctly.' I explained to her how insights could be gained from these side conversations, and thus stressed again how necessary it was to translate the entire conversation verbatim, and that moving forward nothing should be excluded or modified. At the time, I thought that this issue happened because of hiring a non-professional translator and that it was my fault for not providing sufficient instructions, which may have been the case. Albeit, in hindsight I also acknowledge inherent issues with the way in which I viewed translation.

Firstly, my view of the translation process ignored what Temple (2002) warned against, which was "the linguistic imperialism central to the unquestioning use of English as a baseline language" (p. 847). Rather than asking the translator to adhere to translating verbatim strictly, I
needed to recognize that in cross-language research, the strive towards equivalence may not be ideal. There are words, phrases, socio-cultural idioms, and proverbs that exist in different languages that cannot be translated into English. This limitation was valid in my study as well, as the translator raised a concern about the translation process I was pushing her to do. She mentioned that there were some words and phrases that the participants were saying that if she translated verbatim, it would simply not make sense in English. We discussed that it would be best for her to write the word or phrase in Waray, and in brackets include her notes that explain the word or phrase and how it relates to what is being expressed. This method also allowed her to be identified in the transcript, which provided a more fulsome and rich account of the data.

Secondly, and ironically, while I was reflective on how my social location, identities, and experiences impacted the research process (as outlined in Chapter one and earlier on in this Chapter, in section 3.4), I failed to recognize, what Huiping (2008) suggested researcher’s should focus on, which was how the translator’s various beliefs, assumptions, and biases can come into play and shape the translation process. I simply thought if I provided her with straightforward instructions on translating, then such elements would not affect the transcripts. This assumption was naïve on my part. I now recognize what Huiping (2008) elucidated:

"translation is first a sense-making exercise. The translator must understand and make sense of the material he or she is translating, before converting it to a second language. It is in this sense-making process where the translator's knowledge, social background, and personal experience come into play." (p. 240)

By acknowledging that translation is an interpretation (in its broadest sense), then we as researchers are more prepared to mitigate the effect of the translator's biases, beliefs, and assumptions in the research process (Temple, 2002). For instance, Temple suggested that
researchers can ask the translator(s) about their perspectives on issues concerning the study topic. Overall, this experience prompted me to deeply consider the role and effects of the translator in future cross-language studies, and strategies to enhance the translation process and mitigate negative effects of it (e.g., on the quality of data).

3.10 Data Analysis

The dataset included for analysis comprised of 22 documents, 10 pages (5139 words) of field notes, 28 researcher-generated photos, 3 researcher-generated videos, 29 transcripts, 30 participant-generated photos, and 4 participant-generated videos. The number of photos and videos included in the data set was less than the total number collected because I only added the photos and videos that were not discussed and analysed during the interviews (e.g., photos and videos that had no supporting textual data). The reason for excluding the photos and videos that participants had selected to discuss during interviews, was that it was already included in the textual data via the interview transcripts.

A focus of case study methodology is to create a rich an in-depth description of the context, case(s), and phenomenon (Merriam, 1998). Therefore, a large volume of data was necessary. The multiple data collection methods I employed had produced a large volume of data to manage. Data management is one of the most significant challenges in conducting case study research (Merriam, 1998). Therefore, it is necessary that data collection and analysis is done simultaneously. Furthermore, Merriam asserted that “without ongoing analysis, the data can be unfocused, repetitious, and overwhelming in the sheer volume of material that needs to be processed” (p. 162). In my study, I conducted analysis continuously and recursively, alongside data collection. For instance, shortly after I collected a data item, whether it was a document, transcript, photo, video, or field note submission, I conducted an initial analysis (specifically
following procedures from stage one and two as outlined below in section 3.10.3.1 and 3.10.3.2, respectively). Thematic analysis (TA) was the analytical method I employed.

3.10.1 Overview of thematic analysis.

Put simply, TA is "a systematic procedure for generating codes and themes for qualitative data," both within a data item and across the data set (Clarke & Braun, 2017, p. 297). The smallest units of analysis in TA are codes, and these codes capture intriguing aspects of the data that could potentially be relevant to the research question. Themes are the next unit of analysis, which are "larger patterns of meaning, underpinned by a central organizing concept – a shared core idea" (p. 297). It is these themes that provide the structure for the researcher/analyst to organize and report the findings. The TA procedure involves six phases: 1) data familiarization, 2) development of initial codes, 3) identifying themes, 4) reviewing themes, 5) defining and labeling themes, and 6) creating the report.

TA is a widely used but rarely acknowledged method to analyse qualitative data (Braun & Clarke, 2006). It is also "a very poorly 'branded' method, in that it does not appear to exist as a 'named' analysis in the same way that other methods do (e.g., narrative analysis, grounded theory, interpretative phenomenological analysis)" (p. 80). Furthermore, it has been proposed as part of other methods, such as grounded theory, or used interchangeably with content analysis.

While TA share similarities with grounded theory and content analysis, there are notable distinctions. All three analytic methods seek to identify patterns (e.g., categories or themes) in the data (Braun & Clarke, 2006). The difference between the grounded theory and TA method is that the former is theoretically bound (whereby the aim of analysis is geared toward building substantive theory grounded in the data) while the latter is not. Content analysis differs from TA, primarily in the way themes can be identified. When employing content analysis, themes are
identified based on quantifiable measures, such as how frequently it occurs in the text. In contrast, when using TA, theme identification is more nuanced whereby it can be based on the frequency of occurrence, or if it "captures something important about the overall research question" (p. 82). On the continuum of descriptive and interpretive data analysis methods for qualitative data, both content analysis and TA are more toward the descriptive end than grounded theory, but TA is considered more interpretative than content analysis (Vaismoradi, Turunen, & Bondas, 2013).

3.10.2 Rationale for using thematic analysis.

There were a few reasons why I used TA to inform my analysis. First, the method was flexible (Braun & Clarke, 2006). For instance, it could be used across research paradigms, data collection methods, and types of data (e.g., visual and textual). This flexibility was necessary when considering the multiple data collection methods and different types of data that needed to be analyzed for my study.

TA also offered a novice researcher like myself, a clear protocol for analysis with "a defined sequence of analytical stages" (Vaismoradi et al., 2013, p. 403). Indeed, Vaismoradi and colleagues recommended that TA is "a method that should be used by qualitative researchers at the beginning of their research careers," because it is considered as one of the most fundamental analysis methods to learn" (p. 403). Albeit, Vaismoradi and colleagues (2013) also noted that the simple nature of the TA does not necessarily mean that such a method would "produce simple and low-quality findings" (p. 404). To ensure that high-quality analysis is conducted, TA has “in-built quality procedures such as a two-stage review process (where candidate themes are reviewed against the coded data and the entire data set)” (Clarke & Braun, 2017, p. 297). I
explain this two-stage review process in detail later in this chapter (in section 3.10.3), where I outline how I went through the six phases of TA when analyzing my data set.

The accessibility of the approach also lends itself to be an analytic method that is useful for PAR studies. Data analysis is part of the research process that "is a highly complex and technical area of research even for professional, [and] experienced . . . researchers" (Coad & Evans, 2008, p. 46). PAR studies engage participants who most likely have little experience in the analysis process. Thus, having an accessible data analysis approach such as TA is helpful.

The flexibility and accessibility of TA are the strengths of this analytical method. At the same time, these strengths are a source of criticism, in that its flexibility has been reprimanded as a method whereby "anything goes" (Braun & Clarke, 2006, p. 95). Therefore, when employing TA, it is important for the researcher to be transparent. The researcher must be explicit and detailed when reporting how the analysis was conducted and what decisions were made before and during analysis. Noting the importance of transparency, in the next section, I describe in detail how I employed each stage of TA in my study.

3.10.3 Applying thematic analysis.

3.10.3.1 Stage one: Data familiarization.

At this stage of analysis, the focus is on immersion, whereby the analyst conducts repeated readings of the data items (e.g., transcripts or documents collected) (Braun & Clarke, 2006). The reading is done in an active way, which includes writing down initial thoughts on the features of the data or even preliminary ideas for codes (Braun & Clarke, 2006). For the textual data, I read each data item at least twice, writing down notes about initial thoughts. For example, I had pointed out that in one transcript, the interviewee's responses were brief and not very descriptive. Thus, I needed to include more probes in the subsequent interviews. Another
example, of what an initial thought entailed, included noting that a data item (e.g., an agency report that I collected) was particularly helpful in explaining the context of the case. After reading each data item, I also wrote down ideas for possible codes. For the visual data, I reviewed each photo and video and wrote brief notes under four categories. The first concerned the general content of the photo or video (e.g., the people, places, things, or activities being captured). The second, concerned which week the photo or video was taken (e.g., was it taken during the week when the discussion topic of the interviews was about describing the local context of Apitong). The third, concerned who took the photo or video (e.g., participant vs. researcher). The fourth and last, involved ideas for possible codes for each picture or video. I went through this initial stage every time I collected a data item. Since data collection and analysis spanned approximately seven months, this stage was helpful to produce notes to refer to during the subsequent stages.

3.10.3.2 Stage two: Development of initial codes.

At this stage of analysis, Braun and Clarke (2006) stated that the focus is on formally developing a code list. In TA, coding can be inductive, deductive, or a blend of both (Braun & Clarke, 2006). For my study, I chose the hybrid approach to coding. Even though older people's resilience within the context of disasters is an under-researched topic, there was evidence in the literature review I conducted in Chapter two that support some themes to be explored in different contexts or at least encourages further investigation of such patterns. Based on the findings of my literature review, I selected 10 pre-determined codes: living arrangements, individual health and functional status, prior experiences with disasters, personal characteristics and behaviours, income/financial capacity, social support, critical care systems, culture, risk communication processes, and disaster exposure. I ensured that this list was not too long, as not to hinder the
generation of new codes, which Merriam (1998) suggested can often provide the most relevant and unique insights about the data. I was not restrictive in identifying codes because I noted that Braun and Clarke (2006) said, at this stage, it was essential to "code for as many potential themes/patterns as possible (time permitting) – you never know what might be interesting later" (p. 89).

When coding a data item, I extracted segments of text which were (potentially) relevant to the research question. The data obtained (or unit of data) was either a phrase, sentence, a section of a paragraph, or a paragraph, but it was not a single word nor was it longer than a paragraph. I acknowledged what Merriam (1998) noted, that "a unit of data can be as small as a word a participant uses to describe a feeling or phenomenon, or as large as several pages of field notes describing a particular incident" (p. 179). However, I decided a single word would not suffice, as I aimed to do what Braun and Clarke (2006) suggested which was to "code extracts of data inclusively – i.e., keep a little of the surrounding data if relevant, [as] a common criticism of coding is that the context is lost" (p. 89). Also, I decided anything beyond a paragraph was too unyielding, specifically at this early stage of analysis, which was focused on identifying the "bits of information" (Merriam, 1998, p. 179). At this juncture, each data extracted could have more than one code applied to it. For the visual data, I reviewed the notes I wrote in stage one associated with each photo or video, and then coded the entirety of the picture or video. Since the videos were all under a minute (or even shorter), I decided not to code based on sections of the video, but rather code the video in its entirety.

The last point to note at this stage was that coding was done more at the semantic rather than latent level (Braun & Clarke, 2006). The former is coding at the descriptive level, whereby analysis does not go beyond what is written and said by the participants or what is seen in the
photo or video. It only entails describing the extracted textual or visual content. In contrast, the latter is a more interpretive level of coding. While I acknowledged, there was some degree of latent coding done, I was mindful to be coding more at the descriptive level at this stage and leave the interpretive level of analysis to be conducted in the following phases (e.g., during theme identification).

Like the previous stage, I went through the steps in this stage as I received a data item. I had file folders set up on my laptop, whereby each file folder coincided with a code. As I continued through data collection and analysis, I either added relevant data extracts to the file folders (corresponding codes) or created new file folders representing new codes.

3.10.3.3 Step three: Identifying themes.

This stage of analysis is aimed at identifying the candidate or potential themes, which Braun and Clarke (2006) noted are broader patterns of meaning in the data. A potential theme is generated by sorting and re-sorting the codes developed in the previous stage. Questions that, Braun and Clarke (2006) suggested, that would guide this process, which I also used, were: Which codes are similar so that they can be combined? Which codes needed to remain distinct and should not be collapsed with others? Which codes can be combined but still needed to be distinguished (e.g., creating sub-themes)?

To help with the sorting and re-sorting of codes into potential themes, I printed off half-letter sized papers with content on both sides. On one side was the word or phrase for the code in large font size, and on the other were data extracts, photos, and videos associated with the code. I had saved each photo and video with an identifying number on my laptop, and this number was put on the back of the paper. Utilizing some visual representation was suggested by Braun and Clarke (2006) at this stage of analysis. Also, as a visual learner, myself, it helped me to analyze
how codes went well together or not, and how the codes and the potential themes related to one another.

At this stage, a candidate theme was identified in one of two ways. First, I decided that a theme can be generated based on consistency. I defined consistency as occurring across all four participants. Thus, there must be data extracts that were linked to each participant under a specific theme (e.g., I could find extracted data from the individual interviews of each participant). The second way of generating a theme was asking whether "it capture[d] something important in relation to the overall research question[s]" (Braun & Clarke, 2006, p. 83). Generating a theme based on this criterion was challenging. I needed to balance between ensuring that it was not anecdotal, "where one or a few instances of a phenomenon are reified into a pattern or theme when it or they are actually idiosyncratic" and I was not restricting my level of analysis to be descriptive (Braun & Clark, 2006, p. 95). Albeit, the two-step quality control process in the next phase of TA analysis was an additional check to ensure I kept such a balance.

From the seven-month timeline (March 9th to October 7th, 2016) of data collection and analysis, I conducted the steps in this stage (along with stage four and five) much later (during September 2016 and onwards). By September, most of the data had been collected, and I needed to present the preliminary findings to the participants in focus group four and five for accuracy and approval.

3.10.3.4 Stage four: Reviewing themes.

The aim at this stage of analysis is to examine and refine the candidate themes and sub-themes (Braun & Clarke, 2006). The built-in quality control process noted earlier in the section was employed here. The first step of the two-step process, entailed me reviewing all the coded
data extracts under the theme and assessing whether the contents "appear to form a coherent pattern?" (Braun & Clarke, 2006, p. 91). Was there a core idea that connects all the bits of information (textual and visual) catalogued under a specific theme? If the answer was no, then I did what Braun and Clark (2006) suggested which was more sorting and re-sorting of codes and data extracts. For instance, there were times that one or a few of the data extracts did not fit under a theme and it needed to be placed under either an existing theme, a new theme, or if the data extracts did not fit at all, it needed to be excluded from analysis. Alternatively, if the answer was yes, then I did what Braun and Clarke (2006) suggested, which was to move to the second step and review the candidate theme to the entire data set. This second step required me to re-read the whole data set and code any additional pieces of information for themes that may have been missed in earlier stages. Furthermore, it was a way for me to check if I had generated a theme anecdotally. Braun and Clarke (2006) argued that such unique features of the data may reveal interesting insights, "but it is important not to represent them as an overarching theme" (p. 95). This stage was also conducted in September 2016, as it was necessary to complete before I facilitated focus group four and five.

3.10.3.5 Stage five: Defining and labeling themes.

At this stage, I formally defined and labeled each candidate theme as was suggested by Braun and Clarke (2006). The labels were defined as they were presented in the short video, research brief, and dissertation. Furthermore, at this stage, sub-themes were identified and described. Sub-themes are themes within a theme, and "are useful for giving structure to a particularly large and complex theme, and also for demonstrating the hierarchy of meaning within the data" (Braun & Clarke, 2006, p. 92). For each theme and sub-theme, I wrote a detailed analysis reflecting on the core idea being expressed and as well how each theme related to the
overall message identified. To test, whether the themes were clear and concise, Braun and Clarke (2006) recommended the researcher, at this stage, to “describe the scope and content of each theme in a couple of sentences [and if the researcher is unable to], then further refinement of the theme may be needed” (p. 92).

This stage occurred in September as well. The research products for my study were aimed at different audiences. The short video was produced for the local community (of Apitong), the research brief was developed for the local NGO (COSE), and my dissertation was written for academics. Thus, the labels used for the various themes and sub-themes needed to fit the appropriate audience base and consequently slightly differed.

### 3.10.3.6 Stage six: Creating the report.

Braun and Clarke's (2006) version of TA, also provided recommendations on what to include in the written report of the findings of a study. For instance, the write up needs to go beyond mere description of the data and include an analytical narrative. Braun and Clarke (2006) suggested questions that would help the researcher to build such a narrative and included: What is the meaning of this theme? What are the underlying assumptions of each theme? How do the individual themes relate to each other to share a central message or story? What does each of the themes reveal about the overall story of the topic (Braun & Clarke, 2006). I also used these questions to guide me in writing the findings and discussion section of my dissertation.

Furthermore, Braun and Clarke (2006) noted that the write-up needs to provide sufficient evidence that supports each theme. For example, since I had decided that consistency was one way a theme could be identified, I had included data extracts (or quotes) attributed to each of the four participants in the findings section of my dissertation (Chapter four). In addition to considering the recommendations provided by Braun and Clarke (2006), I was also mindful to
ensure that the findings of my dissertation included a thick description of the context, as well as the case. While generally, Merriam (1998) stated that there is no specific way of reporting case study research, she said that "perhaps the major point about case study to keep in mind, is that they are richly descriptive in order to afford the reader the vicarious experience of having been there" (p. 238).

While the advice provided in this stage was applicable in developing all three research products, it was most helpful in writing Chapter four and five, the findings and discussion sections of my dissertation. For example, in the research brief and short video, there was not sufficient space (e.g., the video is under 10 minutes and the research brief is two pages) for me to have provided a detailed and thick description of the context or case. Albeit, the various questions above were helpful to consider in developing the short video and research brief.

3.11 Rigour

Rigour relates to the trustworthiness of research findings (Merriam, 1998). In an applied field like social work and with studies informed by PAR, where researchers intervene in people's lives during the research and after, ensuring rigour is an important task. Several strategies were employed to ensure that the knowledge produced from my study is trustworthy.

Two of these strategies were necessitated by case study methodology: triangulation and thick description (Merriam, 1998; Stake 1995). While Merriam (1998) and Stake (1995) did not espouse specific data collection methods to be used, they strongly encouraged the researcher to collect data in multiple ways. This tenet of case study methodology was one way to ensure rigour via triangulation. The evidence provided by one data collection method and data source strengthened the evidence collected from another. By collecting data in multiple ways (e.g., interviews, PV/VV, document review, and observation) and having different types of data
sources (e.g., photos, videos, transcripts), I strengthened the credibility of the evidence and provided different media to review the evidence (e.g., visual, auditory, and textual).

Thick description was another technique built into case study methodology to ensure rigour (Merriam, 1998; Stake 1995). The write up of case study studies must be descriptively rich to provide the reader with a vicarious experience and sufficient details so that they can make an informed decision regarding the transferability of the findings in different contexts and case(s). Furthermore, the technique of thick description also applies to the write up of the methodology section. In their content analysis of 159 peer-reviewed published case study research studies, Gibbert and Ruigrok (2010) suggested that rather than referring to abstract criteria for rigour that researchers needed to:

focus more on transparency, that is, relaying to the reader the concrete research actions taken, so that he or she may appreciate the logic and purpose of these actions in the context of the specific case study at hand (talk the walk). (p. 725)

For my study, to ensure I provided a thick description of the methodology, I considered the what, why, and how of every action I took, which was a suggested action by Gibbert and Ruigrok (2010). For example, when writing about the various data collection methods I employed, I ensured that I addressed what the specific method was, why it was selected it, and how I applied it within the context of my study. I also ensured that in the findings chapter (Chapter four) a rich and in-depth description of the context and case, along with the findings were provided.

Although, it is important to note again, that this strategy was not employed when developing the short video and research brief. The limited space for content in the short video and research brief was what challenged my ability to adhere to a thick description for these research products. Also, it was important that I kept the audience’s interests in mind. For example, it was unlikely the
local community would want to hear about the intricate details of coding and theme construction during the analysis of my study.

In addition to the two techniques that were built into case study methodology, I employed three other strategies to ensure rigour. Firstly, prolonged engagement, which “require researchers to spend sufficient time in the case study site to gain a full understanding of the phenomenon being investigated,” was one way to ensure rigour, as the collection of data over a longer period of time can enhance the validity of the findings (Houghton, Casey, Shaw, & Murphy, 2013, p.13). In my study, the time at the research site was approximately seven months. This length was necessary to build trust and rapport with the participants and contribute to rigour. The relatively long period at the research site also allowed for opportunities to conduct many member-checks, which was the second strategy to ensure rigor that I employed.

Member-checks are opportunities for participants of a study to check for the accuracy and authenticity of the "constructions derived from data analysis" (Houghton et al., 2013, p. 14). In my study, member-checks were regularly conducted and integrated into the interviews (both individual and focus group interviews). As data analysis was ongoing, I always had some preliminary analysis to present back to the participants. While the primary purpose of focus group four and five were for member-checks, I routinely integrated a series of questions (in most of the semi-structured interview guides) that provided opportunities for the participants to evaluate the accuracy and authenticity of what I analysed thus far.

Third and lastly, I employed reflexivity as another technique to ensure trustworthiness of the findings. Reflexivity is the process of researchers making explicit their "assumptions, worldviews and theoretical orientation at the outset of the study," as they acknowledge that such elements affect all aspects of the research process (Merriam, 1998, p. 205). To adhere to
reflexivity, I described, in Chapter one and at the beginning of this chapter, my research paradigm, social location and identities, and social experiences that shape my beliefs, assumptions, and values that were relevant to my study topic. In this way, the readers of my dissertation are more able to assess potential biases of mine that may impact the interpretation of the findings.

3.12 Ethics

In this section, I review ethical considerations of my study and delineate the steps I took to ensure that the knowledge generated were done so in an ethical manner. I covered considerations relevant to procedural ethics and ethics in practice (Murray & Nash, 2017). Procedural ethics involves obtaining approval from an institutional review board (IRB), whereby there are standard ethical requirements that researchers must adhere to (e.g., delineating the risk and benefits to participation, ensuring participation is voluntary, ensuring confidentiality and anonymity). I obtained ethics approval from the University of Calgary Conjoint Faculties Research Ethics Board (CFREB) (see Appendix Q for the ethics approval certificate). Ethics in practice “refers to how individual researchers personally negotiate the practical ethical issues that can arise when they are conducting research” (Murray & Nash, 2017, p. 932). As good ethical practice in research is “contested, contextual, and dynamic,” (Prosser, Clark, & Wiles, 2008, p.3) it was necessary for me to consider and critically reflect beyond that of procedural ethics.

3.12.1 Confidentiality.

Ensuring confidentiality (which includes anonymity) is a prioritized and valued ethical principle in social science research, especially in studies that engage participants to share their personal life (Baez, 2002). The common expectation in institutional review board (IRB) ethics applications is for researchers to delineate the steps in which confidentiality and anonymity will
be achieved (Yu, 2008). Albeit, pursuing confidentiality is not a straight forward process, nor should it be automatically assumed as necessary in every study. Yu (2008) advised that confidentiality and its caveats should be discussed, consulted, and negotiated with participants during the research process. Furthermore, he purported that the (informed) decision to remain anonymous or not should be based on the participant's preferences.

In all the research products (including the short video, research brief, and my dissertation) and during any dissemination (e.g., the local community presentation and subsequent international conferences or presentations) all four participants were identified in a couple of ways. Pseudonyms were not used, rather participants chose to be identified with their full and nick names. The latter are names they were most commonly known by, in the local community. Furthermore, full-faced photos and videos of each participant were used. Each participant's decision to not remain anonymous was reached through a continuous process. This process involved, first, reviewing the content included (or would be included) within each research product and future disseminations. It was important at this stage to ensure that participants were not presented in an embarrassing or harmful way and to discuss this goal with the participants (Murray & Nash, 2017). Furthermore, it was critical to share content that was as close to the final draft of the research product as possible (e.g., reviewing drafts of the short video and not just general details of what might be included).

After reviewing the content, the process then involved a discussion regarding i) who would potentially receive the product, ii) the reasons for wanting anonymity (including a discussion of risks), iii) how they could remain anonymous in the study, and iv) reasons for wanting to be identified. In the discussion, consultation, and negotiation process regarding confidentiality it was important that I was specific as possible and provided multiple alternatives
so that the participants were informed when making their decision. For instance, before developing the video, I presented the participants with different examples (options) in which it could be created. The first example was an animated video of a research study. This example was presented as an option if all the participants wished to remain anonymous. For the second example, I showed them the video that was created from my MSW study (see Appendix R for the link to the video) whereby, the images and videos of the participants were included; Thus, the participants were readily identifiable. From this example, I explained that it was possible to accommodate those who wish to be identified and those who did not.

There was another group of people to consider when applying this principle of confidentiality to my study: the individuals who were interviewed or captured in the images and videos generated by the participants. Initially, the protocol developed (which was approved by the CFREB) was to train the participants on facilitating the informed consent process, which included providing them with a script to follow when conducting interviews or taking photos or videos of others (see Appendix S for the script). In practice, this was difficult to implement. While one of the PV/VV workshop sessions was focused on ethics and the informed consent process, I felt the time I allocated for this topic was insufficient to adequately train the participants to follow the protocol and to relay to others what the research is about, why the photos or videos of them would be taken, and all the various ways their image could be disseminated. Furthermore, the participants questioned the necessity to follow the formality of the script, with all its various questions. Lastly, as I mentioned earlier in this chapter only one of the participants was comfortable with using the video-recording function of the camera. This feature was necessary to record verbal consent. Thus, considering these challenges, I made the decision not include any photos and videos that would identify people other than the participants.
3.12.2 Not overburdening the participants.

Murray and Nash (2017) stated that "managing the burden of participation" (p. 932) should be a key ethical consideration in studies, and there were several ways that I practiced this principle. For instance, it was important that the interviews were conducted at a convenient location and time for each of the participants. The one-to-one interviews were mostly carried out at the participants' homes, except for the times when it was more convenient for the participant to meet somewhere else (e.g., my house was along the main road toward the market and sometimes it was easier to meet there if the participant wanted to conduct the interview prior to running an errand at the market). For the focus group discussions and workshops, it was harder to accommodate all the participants. Although, we managed to agree on a time (typically Sunday mornings) that worked well with all the participants and did not interfere with their regular activities and responsibilities.

Managing the burden of participation also meant honouring the work and time that they contributed to the study. The participants met with me weekly (sometimes twice a week) over the course of approximately seven months (April to October 2016). While field activities (e.g., data collection via field observation and document review) began in March 2016, the PV/VV and interview processes did not begin until April 2016 with the participants. Also, during these seven months we took a break for 2 weeks (last week of June to first week of July 2016), as I was out of the country participating in a conference. Recognizing this commitment was important. Honorariums (of PHP 3500, approximately CAD 100 for a total of about 50 hours over the course of their participation) were provided to participants. The cash payment may seem large at first examination given the economic circumstance of the participants, and as such, it was a concern raised by the CFREB. However, the amount adequately reflected and respected the time
commitment and expertise of the participants and was not too high to be considered a coercive payment (Grant & Sugarman, 2004).

Grant and Sugarman (2004) argued that such incentives to recruit or retain participants for a study are largely harmless unless any of the following factors were present: i) the participants were in a dependent relationship with the researcher, ii) there were particularly high risks in participating, and iii) “the research is degrading, where the participant will only consent if the incentive is relatively large because the participant’s aversion to the study is strong, and where the aversion is a principled one” (p. 717). None of these factors came into play for my study. I also sought to honour the participants in non-monetary ways. For example, at the end of the study, I compiled a photo album for each participant. This photo album was a collection of photos of our team throughout the research process that included a personalized letter (translated in the local dialect) of what I learned from working with each of the participants. The idea of the photo album came after the last focus group discussions, whereby participants asked me to take and print a group photo of us to be distributed to each of them, so that they would have a keepsake that reminded them of their participation and experiences in the study.

3.12.3 Informed consent with participants who have low literacy and are from a different cultural context.

Another ethical consideration in my study was the informed consent process. I adopted a multi-fold iterative approach to consent, and extended the process across three separate meetings, because of the likelihood that the participants have low literacy, and that the customs and cultural nuances of the host country and community could impact the consent process. Krogstad and colleagues’ (2010) argued that “(1) informed consent can be improved in both developed and
developing countries and (2) there is no logical reason to insist that informed consent be identical in countries with markedly different cultures, social traditions, and literacy” (p. 746).

Within the literature alternative strategies recommended, specifically for illiterate or low literacy participants, included: i) extending informal consent discussions (e.g., providing oral presentations and discussion sessions in the local language); ii) audio recording the consent transaction rather than signing a written document; iii) incorporating a teach-back method (which involve participants to recall and explain what has been discussed in their own words), amongst others (Krogstad et al., 2010; Tamariz, Placio, Rober, & Marcus, 2013). In a systematic review of various alternative strategies used to engage participants with low literacy, Tamariz and colleagues (2013) found that “interventions, where a study team member spent more time talking one-to-one to study participants, were most effective at improving research participant’s understanding” (p. 24). In consideration of these findings, I developed a consent strategy as outlined below.

The informed consent process began with conducting two one-to-one meetings with the participants. In the first meeting, I reviewed and discussed the elements that would typically be in a consent form (e.g., the purpose of the study, what they will be asked to do, what type of personal information will be collected, risks and benefits if they participated, and what happens to the information they provide). In the second meeting, the participants recalled and explained what had been discussed at the preceding meeting, and brought up any additional questions, issues, and concerns that arisen since then.

Following the one-to-one meetings were a general orientation for the participants, whereby the group had the opportunity to discuss further and ask questions about the study. Furthermore, participants were informed that their decision to participate, not participate, or
withdraw from the study would not impact their relationship with COSE or the local OPO (of Apitong). Participants were informed during the consent process the right to withdraw from the study, at any time without any penalties. Once this was done, participants were asked to provide audio-recorded consent.

3.13 Chapter Summary

In this chapter, I discussed and reflected on my methodological plan, modifications made while implementing the plan, and in hindsight what I had missed and should have considered. I have learned that methodology is a dynamic concept, as it can shift and change when practicing research. Thus, a detailed description of how I applied (sometimes) abstract methodological protocols and concepts in the context of my study was necessary. I provided such details to enhance the trustworthiness of the findings presented in the next chapter, and to highlight how methodology must be continuously negotiated and reflected on throughout the research process.
Chapter 4: Research Findings

4.1 Chapter Overview

In this chapter, I present the research findings with the supporting evidence. The purpose of my study was to identify the factors and processes (specifically during the mitigation phase of the disaster management cycle or non-disaster times) that shape and influence resilience for a specific cohort of older people (the case): older women living in poverty, who are widowed, head of household, and living in a disaster-affected community in the Philippines. As I outlined in Chapter three, I used a single instrumental case study methodology informed by PAR principles to collect qualitative data through individual and focus groups interviews, PV/VV processes, observations, and document reviews. I used thematic analysis to analyze the data.

When I reported the findings of my study, I was reminded by what Merriam (1998), one of the principal authors of case study methodology, said, "perhaps the major point about case study research to keep in mind, is that they are richly descriptive in order to afford the reader the vicarious experience of having been there" (p. 238). To provide you, the reader, with such an experience and noting that case study research is about providing context-based knowledge (Merriam, 1998; Stake, 1995; Yin, 2003), I begin this chapter with a description of the context, which includes the physical, demographic, political, economic, healthcare, and cultural setting. Then, I proceed to describe the case. Lastly, I present the research findings, where I identify and describe the key factors and processes that shape and influence the older women’s resilience in the context of disasters.

4.2 Description of the Context

From the findings of the literature review in Chapter two, I recognized that older people’s resilience should be examined or understood with the context in mind. The need to pay attention
to context, was a reason why (as I mentioned in Chapter three) I chose case study methodology, because “[I] deliberately wanted to uncover contextual conditions – as [I] believed that they may be highly pertinent to the phenomenon of the study” (Yin, 2003, p. 13). Therefore, it was essential to include a description of the context before presenting the case and findings.

4.2.1 Physical setting.

As I described in Chapter one, the Philippines is one of the most disaster-prone countries in the world (Bündnis Entwicklung Hilft and UN University – Institute for Environment and Human Security, 2016). It is situated along the typhoon belt of the Western Pacific and along the Pacific Ring of Fire, which makes it prone to typhoons, earthquakes, tsunamis, and volcanic eruptions (Asian Disaster Reduction Center, 2016). The Philippines is comprised of over 7000 islands and has a total land mass of about 300,000 square kilometers (Bündnis Entwicklung Hilft and UN University – Institute for Environment and Human Security, 2016). The terrain of the country is “mostly mountainous with narrow to extensive coastal lowlands” (WHO, 2011b, p. 2).

The climate in the Philippines is tropical, and it experiences "relatively high temperatures, high humidity, and abundant rainfalls" (WHO, 2011b, p. 2). The rainy season occurs from November to June; However, many parts of the country experience continuous rainfall during the entire year. For instance, in Tacloban City (where my research study was conducted) there are heavy rainfalls throughout the year. The city’s climate is categorized as Af under the Koppen-Geiger climate classification, which is “the most frequently used climate classification map” (Kottek, Grieser, Beck, Rudolf, & Rubel, 2006, p. 259). Af or "equatorial rainforest, fully humid" climates do not have a dry season and throughout the year there are minimum precipitation of 60 millimetres or greater (Kottek, Grieser, Beck, Rudolf, & Rubel, 2006, p. 260).
4.2.2 Demographic setting.

According to the Philippine Statistics Authority (PSA) (2017a) in the most recent census, conducted in 2015, the total population of the Philippines was an estimated 100,981,437 million, an increase of 8.6 million since the last census in 2010. The total number of households in the country was 22.98 million, and the average size of a household was 4.4 persons. The archipelago of the Philippines is organized under three island groups: Luzon, Visayas, and Mindanao. More than half (56.9%) of the country's population resided in Luzon; 23.9% lived in Mindanao, and 19.2% resided in the Visayas (PSA, 2017a).

Based on the 2015 census, the total population of Tacloban City was 242,089 persons; the total number of households was 50,547, and the average number of persons per household was 4.8 person (PSA, 2017a). Tacloban City is made up of 138 barangays (or communities). Aptiong (the community where my research was conducted in) is one such barangay and was the 13\textsuperscript{th} most populated barangay in the city (PSA, 2017a). The total population of Apitong was 4946 persons, comprised of 1008 households with 4.9 as the average number of household residents.

The Philippines has a relatively young population with the median age at 24.3 years old (PSA, 2017a). The largest age group in the country were children aged 0 to 9 years old. The age dependency ratio was 58 to 100, which meant that for every 58 persons who were of a dependency age (children aged 0-14 and older persons aged 65+) there were 100 persons who were of economically productive age (aged 15-64). Of those who were of a dependency age, 31.8% were children, and 4.7% were older people.

Regarding religious affiliation, based on the 2015 Census, 79.5% (or 80,304,061 persons) of the total population identified as Roman Catholic (PSA, 2017a). Islam represented the second
largest religious affiliation, accounting for 6%, of the total population. Iglesia ni Cristo and Evangelicals (Philippine Council of Evangelical Churches) were the third and fourth largest religious affiliations accounting for 2.6% and 2.4% of the total population, respectively. The remaining people were categorized by the PSA as “other religious affiliations” (para. 14).

There are 176 ethnolinguistic groups in the Philippines, which broadly fall under three ethnic groups: non-indigenous/non-Muslims, indigenous non-Muslims, and Muslims (Reyes, Mina, & Asis, 2017). The non-indigenous/non-Muslim group is further made up of 19 different groups and represent the majority of the population (approximately 85% of the total population) (PSA, 2017a). Furthermore, the 10 largest ethnolinguistic groups in the Philippines are non-indigenous/non-Muslims, including: Tagalog (which is the official language of the Philippines, along with English), Bisaya/Binisaya, Cebuano, Ilocano, Hiligaynon/Ilonggo, Bikol/Bicol, Waray, Kapampangan, Boholano, and Pangasinan/Panggalato, in descending order. The second ethnolinguistic group, indigenous non-Muslims, are comprised of 142 different groups and make up 8% of the total population (PSA, 2017a). The third ethnolinguistic group, Muslims, which make up 5% of the total population are comprised of 15 different ethnolinguistic groups, further categorized as either: indigenous Muslims (comprising of nine different groups) and non-indigenous Muslims (consisting of six different groups) (PSA, 2017a).

4.2.3 Political setting.

The present Constitution of the Republic of the Philippines, an amendment to the 1973 Constitution, was ratified on February 2nd, 1987 (Lejano, 2006). The constitutional changes were made as a result of the 1986 People’s Power Revolution, which was a non-violent movement that ousted the decades-long reign of president Marcos Ferdinand (1965 to 1986) who ruled under martial law from 1972 to 1981 (Lenjano, 2006). The 1987 Constitution marked the transition of
the political system from a unicameral legislation, whereby the President had legislative powers, to a bicameral legislative system (WHO, 2011b). The current political system mirrors that of the United States, with an "executive branch, bicameral legislation, and an independent judiciary under a supreme court" (WHO, 2011b, p. 7).

The 1987 Constitution marked the devolution of political decision-making to the local government units (LGUs) (WHO, 2011b), which was later strengthened by the 1991 Local Government Code. An LGU is comprised of provinces, municipalities or cities, and barangays or villages. While the LGUs enjoy a level of autonomy, the national government continues to hold political power and control over decision-making, because the majority of the LGUs’ budgets are derived from the International Revenue Allotment (IRA), which are disbursed by the national government. Unless the LGUs have other sources of income (e.g., property taxes), the independence and autonomy of the LGUs are limited.

Regarding governmental administration, the country has 17 regions, each of which is divided into provinces, which are then sub-divided into cities, municipalities, and barangays (PSA, 2017b). The regions exist merely for administrative purpose and do not hold political power except the Autonomous Region in Muslim Mindanao (ARMM, n.d.) (which has a regional governor and regional assembly).

The administrative region, province, city, and barangay in which my study was conducted is Region VII or Eastern Visayas, Leyte, Tacloban City, and barangay of Apitong, respectively. The barangay is the lowest political unit and consists of an elected barangay captain or chairperson, seven barangay councilors, and a youth councilor (The Local Government Code of 1991). The chairperson and eight-member legislative council govern through its local seat, which is the barangay hall.
Regarding specific legislation relevant to older people in the Philippines, the country has a national policy on ageing titled, the Expanded Senior Citizens Act of 2010 (or Republic Act [RA] no 9994). This act has gone through a series of amendments. The first iteration was in 1992 (Senior Citizens Act of 1992 or RA no. 7432), which was basic in its provisions such as affording older people (60+) medical-related privileges (e.g., 20% discount on the purchase of medicines, medical supplies and equipment, medical and dental services, professional fees of physicians and other licensed health workers, and home care). A provision of the RA no. 7432 was also to establish the Office for Senior Citizens Affairs (OSCA) in cities and municipalities, the purpose of which was primarily administrative, as it was responsible for issuing the senior citizen’s identification (ID) cards. The ID cards are necessary to present when availing any of the privileges and benefits detailed in the Act.

In 2003, RA no. 7432 was amended and retitled as the Expanded Senior Citizens Act (or RA no. 9257) to extend discounts and privileges to various sectors, including the transportation, recreational, and funeral services sector, amongst others. Other notable provisions in the amendment included, for example, exemption fees for older people to participate in social and economic related programs offered by both the private and government sector and exemption from the payment of individual income tax for minimum wage earners.

RA no. 9257 was amended in 2010 (known as the Expanded Senior Citizens Act of 2010 or RA no. 9994). A notable provision was the introduction of social pension, whereby all older people who were indigent, defined as 60 years of age and older who were “frail, sick or with disability, and without pension or permanent source of income, compensation or financial assistance from his/her relatives to support his/her basic needs,” were eligible for a monthly social pension of PHP 500 (approximately CAD 12.40) that was paid quarterly (Expanded Senior
Citizens Act of 2010, sec. 3). During the initial implementation of the program (in 2011), fiscal challenges limited the coverage to only older people who were indigent and were 77 years of age and older (COSE & HAI, 2016). However, it was later expanded in 2015 to include older people 65 years and older, which has not yet met the initial age (60+) set by the Act. In 2015, this means-tested social pension program made up only 0.08% of the total GDP and had a 20% coverage (approximately 940,000 individuals) (World Bank, 2016). This coverage was relatively low compared to Thailand and Vietnam (the Association of Southeast Asian Nations [ASEAN] counterparts of the Philippines), whose pension coverage was at 81.7% and 43.8%, respectively (HAI, 2015b). The ASEAN member states are Brunei, Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

In 2014, RA no. 9994 was further amended. The new provisions provided mandatory social insurance coverage (via the National Health Insurance Program [NHIP] detailed later in the description of the healthcare setting) for all older people. Furthermore, the amendments included a provision specific to older people and disasters:

Social safety assistance intended to cushion the effects of economic shocks, disasters and calamities shall be available for senior citizens. The social safety assistance which shall include, but not limited to, food, medicines, and financial assistance for domicile repair, shall be sourced from the disaster/calamity funds of LGUs where the senior citizens reside, subject to the guidelines to be issued by the Department of Social Welfare and Development (DSWD). (Expanded Senior Citizens Act of 2010, sec. 5c).

The role of People’s Organizations (POs), and specifically of OPOs in the Philippines was another important point to discuss regarding the political context of the country (Constitution of the Republic of the Philippines, 1987). POs were defined as "bona fide
associations of citizens with demonstrated capacity to promote the public interest and with identifiable leadership, membership and structure” (Constitution of the Republic of the Philippines, sec. 15). The role of the POs was institutionalized in the 1987 Constitution through Sections 15 and 16:

Section 15: The state shall respect the role of independent people’s organizations to enable the people to pursue and protect, within the democratic framework, their legitimate and collective interests and aspirations through peaceful and lawful means

Section 16: The right of the people and their organizations to effective and reasonable participation at all levels of social, political, and economic decision-making shall not be abridged. The State shall, by law, facilitate the establishment of adequate consultation mechanism. (Constitution of the Republic of the Philippines, 1987)

OPOs are voluntary organizations made up of and led by older people to promote the needs and interests of older persons (HAI, 2017). COSE’s (the NGO hosting my study) primary role as an NGO is to organize and support the development of OPOs across the nation. Since 1989, COSE has helped to organize 396 OPOs and provided support to these groups to develop community-based programs that focused on income-generation, home care, community drugstores, advocacy, and social activities, amongst others. The OPOs are formed at the most local level (the barangay level). Albeit, COSE has also helped to organize, at a more national level, the Confederation of Older People Association in the Philippines (COPAP, 2009), which was founded in 2006. COPAP is an accredited PO by the Department of Social Welfare and Development. The amendments to the Expanded Senior Citizens Act, described above, was largely due to the lobbying and advocacy efforts of COPAP and COSE (HAI, 2017).
Lastly, an important note regarding the political context of the Philippines is the phenomenon of political dynasties, described by Mendoza and colleagues (2016) as:

a situation in which an incumbent official has at least one relative in elected office in the past or the present government. Members of the same family, therefore, occupy elected positions either sequentially in the same political jurisdiction (e.g., municipality, district or province) or simultaneously across different positions. (p.180).

Since 1987 (post-Marcos era), the political institutions of the Philippines continue to be dominated by political families/clans, despite a provision included in the Constitution (Constitution of the Republic of the Philippines, sec. 26) that prohibits political dynasties (Tadem & Tadem, 2016). For instance, during the 2013 mid-term elections, the overrepresentation of these dynastic families in political positions was evident. Seventy-four percent of the elected members of the House of Representatives, 85% of the provincial governors, and 84% of the town mayors were from such families. Furthermore, 19 of the 23 sitting senators belonged to such groups.

4.2.4 Economic setting.

As I mentioned in Chapter two, the Philippines is a lower-middle income country, which is defined as a country with a GNI per capita between USD 1,026 and USD 4,035 (World Bank, 2018b). The country’s 2017 GDP per capita was at USD 3,550 (ADB, 2017). From 2010 to 2017 the country had experienced a GDP growth rate that averaged 6.3%, which made the Philippines, consistently, one of the fastest growing economies in Southeast Asia. However, concerning income inequality, the Philippines’ Gini Index remained relatively high at 40.1 in 2015, which was based on the most recently available data for the country (World Bank, 2018a). The Gini Index, the most commonly used measure of inequality in a country, measures the extent to which
the distribution of income or consumption expenditure of individuals or households deviates from perfect equality, whereby the number 0 represents perfect equality, and 100 represents perfect inequality (World Bank, n.d.). A measure of 40 “is widely considered the threshold for high inequality” (ADB, 2014, p. 23).

The poverty incidence in the Philippines was at 21.6% in 2015 (World Bank, 2018a), which meant that almost a quarter of the population fell below the national poverty line. According to the most recently available data for each country, the Philippines’ poverty incidence was also markedly higher than half of the ASEAN member states, which included: Malaysia (0.6% in 2014), Thailand (10.5% in 2014), Indonesia (10.9% in 2014), Vietnam (13.5% in 2014), and Cambodia (17.7% in 2012).

Regarding older people and poverty rates, HAI (2015b) showed in the data from the Global Age Watch Index (HAI, 2015b), an index measuring the quality of life and well-being of older people across different countries through various indicators (including old age poverty rate), that the Philippines had an old age poverty rate of 13.7%. That is 13.7% of older people (60+) had an income that was less than half of the country’s median income. The country’s old age poverty rate was also higher than some of its ASEAN member state counterparts including, Lao’s People Democratic Republic (4.5%), Cambodia (6.2%), Indonesia (12%), and Vietnam (12%).

Labour and employment figures also helped to provide a glimpse of the economic context of the Philippines. As of July 2017, the labour force population (which included people 15 years of age and older who were either employed or seeking employment/unemployed) was about 42 million or 60.6% of the total population of people aged 15 years and older (PSA, 2018). Of this labour force, 4.1% were 65 years of age and older. Underemployment in the Philippines, defined
as those “who express the desire to have additional hours of work in their present job, or to have an additional job, or have a new job with longer hours,” was at 16.3% (an estimated 6.5 million persons) of the total number of employed people (PSA, 2018, para. 8). The unemployment rate was registered at 5.6% (an estimated 2.4 million persons) of the total labour force population.

Shifting to the local economic context, Tacloban City was known as “the regional centre for trade, tourism, education, culture and government in Eastern Visayas” (PSA, 2013, p.1). In 2008, the city’s status was classified as a first class highly urbanized city (HUC), defined as a city "with a minimum population of two hundred thousand (200,000) inhabitants, as certified by the National Statistics Office, and with the latest annual income of at least Fifty Million [Philippine] pesos (PHP 50,000,000.00)" (PSA, n.d., para.1). According to the PSA (2016) based on 2012 data Tacloban City had one of the lowest poverty rates in the country, at 9.8%. However, as Tacloban was the hardest hit city with almost all of its basic infrastructure destroyed by typhoon Haiyan in November 2013 (Lagmay et al., 2015), the local economic context and, in particular, the poverty incidences may have changed.

4.2.5 Cultural setting.

In this section, I present several key concepts and ideas that provide an overview of the Filipino cultural context. It is important to note that my presentation of this context was limited in two ways. Firstly, as a cultural outsider (limited by my Western worldview) it was challenging for me to “see values in terms of the Filipino worldview, experience, and milieu” (as cited in Mangubat, 1999, p. 92). Secondly, the description of any culture at one point in time is limited by the fluid and dynamic nature of culture (Kashima, 2014). Therefore, it is important to keep in mind that, what Uricchio (2005) stated that “there are good reasons to think carefully about [cultural] concepts that seem almost naturally to bind our experience and define our institutional
In his description of the Filipino indigenous value system, Virgilio Enriquez, a leading scholar of *Sikolohiyang Pilipino* or Filipino psychology, explained that the core value of *kapwa*, which means shared identity, undergirds the whole value system (Mangubat, 1999). Kapwa refers to how the inner self and identity of Filipinos is shared among fellow human beings. There are two categories of *kapwa*, and each category is guided by a different set of values and social interactions (Pe-Pua & Protacio-Marcelino, 2000). *Ibang-tao* (which means other people or outsiders) represents one category, and social interactions and values are geared toward, for example, "*pakikitungo* (transaction/civility with), to *pakikisalama*ha (interaction with), to *pakikilahok* (joining/participating), and to *pakikibagay* (in-conformity with/in accord with)" (p. 56). In contrast, *hindi-ibang-tao* (which means “one of us”), the second category of *kapwa*, is guided by social interactions and values such as “*pakikipagpalagay-loob* (being in-rapport/understanding/acceptance with), or *pakikisangkot* (getting involved), or the highest level of *pakikiisa* (being one with)” (p. 56). The central and organizing value of *kapwa* is what drives and influences other dominant cultural Filipino values, including the three most commonly held Filipino values: *utang na loob, pakikisama*, and *hiya* (Mangubat, 1999).

*Utang na loob*, which means “a debt of gratitude,” is the value towards gratitude and solidarity (Pe-Pua & Protacio-Marcelino, 2000, p. 55). It is the idea that within all interpersonal relationships there exist “an opportunity to return a favor,” and this favor can be repaid in the immediate future or through the next generation (Pe-Pua & Protacio-Marcelino, 2000, p. 56). For instance, the expression of utang na loob can be witnessed through the Filipino perspective towards the elder care of the ageing parent, which ultimately rests on the child(ren) who in
adulthood have the opportunity to return the favour of caregiving (Kimura & Browne, 2009). Pakikisama, which means fellowship, is the value towards maintaining smooth interpersonal relationships, by “going along with the group or majority decision, i.e., conformity” (Pe-Pua & Protacio-Marcelino, 2000, p. 56). It is the idea of sacrificing the self (e.g., self-interest) to avoid conflict and ensure togetherness. Hiya, which means shame, is the value towards dignity and the avoidance of shame and it may be expressed, for example, in one’s reluctance to ask for help even though it is needed (Kimura & Browne, 2009).

Lastly, the Filipino culture prioritizes the kinship network over the self, other social relationships, and groups (Kimura & Browne, 2009). The kinship network includes the immediate family members, the extended family on each of the parents’ side, and the godparents (or compadrazo). The perseverance of the kinship network is achieved through the practice of the three key values: utang na loob, pakikisama, and hiya, described above.

4.2.6 Healthcare setting.

The Philippines' health profile can be characterized as a "hybrid or combination of health situations found in both developed and developing countries," whereby the country is still "struggling to eliminate hunger and infectious diseases while continually battling with non-communicable disease (NCDs)" (Department of Health [DOH], 2012, p. 14). In 2015, the healthy-adjusted life expectancy (HALE) was 61.1 years of age. HALE is the "average number of years that a person can expect to live in ‘full health' by taking into account years lived in less than full health due to disease and/or injury" (WHO, 2018a, para. 1). The WHO (2018a) shared that the disease trends among the older population in the country were lifestyle related and infectious. Albeit, the former was more prevalent as eight out of the ten most prevalent causes of death, in 2015, for older people were life-style related (e.g., cardiovascular diseases, cancer, and
chronic obstructive pulmonary disease) and the other two were infectious (e.g., pneumonia and tuberculosis).

The healthcare system in the Philippines is a mixed public-private system with the private sector playing a parallel role, in providing primary health care services along with additional or specialized services for those who can pay more (DOH, 2012). In the National Objectives for Health 2011-2016 agenda, the DOH (2012) reported that almost half of the country’s population utilized private health facilities, but it was largely those who are in the highest wealth quintile and who have insurance coverage. The extensive role of the private sector was further highlighted by the fact that 60% of all the hospitals in the country were privately owned and outnumbered public ones across all four hospital levels. At one end of the spectrum, are level one hospitals, which are the most limited in capacity, operating more as medical clinics. At the other end of the spectrum, level four hospitals have the highest service capabilities. This disparity in hospital services was more pronounced when comparing the hospitals with higher service capacities, whereby there were four times more private level three and four hospitals than public ones.

The delivery of public healthcare services and the provision, management, and maintenance of government health facilities (including hospitals, rural health units [RHUs], and barangay health centres [BHCs]) are devolved to the LGUs (DOH, 2012). The RHUs and the BHCs are the health outposts tasked to provide primary and basic care services. These two public facilities are of integral importance as they are the most frequently accessed health facilities across all regions of the Philippines, except for the National Capital Region (NCR) and Cordillera Administrative Region (CAR) (in which private hospitals and clinics are more frequently used). The devolution of the healthcare system in the Philippines was a result of the
Local Government Code of 1991. While health services have improved since the enactment of the code, service continues to vary across the LGUs (including variation in quality and the types of services offered).

Although the health system is decentralized in the Philippines, the DOH (2017) remains the national government agency that guides “the nation’s health system” and is “mandated to lead the health sector to assuring quality health care for all Filipinos” through adopting and implementing health reforms and setting national health agendas (p. 2). For instance, one of the goals of the most recent health agenda (2016-2022) was to continue the push (from previous health agendas) towards *Bayani ng Kalusugan* or universal health insurance (DOH, 2016).

The DOH's (2016) primary strategy towards achieving this goal was through the NHIP, which was called PhilHealth. PhilHealth was introduced in 1995 in response to the high amount of user fees that citizens were paying for health care services (DOH, 2012). Out-of-pocket spending was the major financing source for the healthcare system. PhilHealth was intended as a safety net for individuals and families who were most vulnerable to poverty, whereby medical challenges with high financial costs could further impoverish these groups. Older people (60+) are eligible for PhilHealth (2014) coverage, and their premiums are subsidized by the national government. Although, older people who are “gainfully employed or who remain to have regular sources of income” are exempt from premium subsidies (PhilHealth, 2014, para. 1).

The goal of PhilHealth was to transition the financing of the healthcare system to a single-payer premium-based insurance scheme (DOH, 2012). The insurance coverage had increased from 5% to 9% between the period of 1997 to 2007. However, at present, the coverage is not extensive and insufficient to serve as the main source of healthcare financing. Thus, in the Philippines, user fees continue as the main source of health financing. Furthermore, out-of-
pocket health expenditure had increased, whereby it accounted for 47% of total health expenditure in 1997 and increased to 57% in 2007, whereas, during the same period, national government subsidies decreased from 20% to 12%, and local government subsidies decreased from 18% to 11%.

Pharmaceuticals also play an integral role in the healthcare context of the Philippines (DOH, 2012). The DOH (2012) reported that between 2000 to 2009, the purchase of medicines made up more than half (varying between 65% to 68%) of the total out-of-pocket health expenditures and this share was higher among persons in the lowest wealth quintiles. Additionally, the DOH (2012) noted that the Philippines was the largest pharmaceutical market in the ASEAN region and the cost of drugs in the Philippines was more expensive than in any other country in Asia. As a response to the high costs of medicines, a number of legislations and policies were enacted that enhanced the accessibility and affordability of quality drugs, including the Generics Act (RA no. 6675), the Cheaper Medicines Act (RA no. 9502), and an executive order that set a maximum retail price allowed for a number of drugs. The Botika ng Barangay (BnB) program was another strategy led by the DOH which intended to enhance access to cheaper medicines. The BnB is a community-based pharmacy (which operates without a pharmacist) that provides drugs at a lower price than commercial drug stores. Despite such legislations and initiatives, the costs of medicines (even generics) in the Philippines continue to be higher than international markets.

At the local level of health care in the Philippines, the BHCs play an integral role in the delivery of and access to public healthcare services (WHO, 2011b). The BHCs are geographically located within the communities and act as the first point of contact for medical treatment or advice. The services of BHCs are primarily preventative, which include, for
example, "immunizations/vaccinations, health, and nutrition education, and family planning
services," but health care services and programs may vary across BHCs (WHO, 2011b, p. 93). Usually, the BHCs are staffed by “barangay health workers [BHWs], volunteer community
health workers, and midwives” (WHO, 2011b, p. 93).

In the barangay of Apitong, there was one BHC, but there was no local pharmacy (e.g.,
BnB) (R. Aguirre [Apitong homecare volunteer], personal communication, April 11th, 2016).
The centre was staffed by a nurse, a midwife, and volunteers. The volunteers included four
BHWs, four barangay nutrition scholars (BNSs), three barangay service point officers (BSPOs),
and two homecare volunteers. The focus of the roles and responsibilities of these volunteers
included health promotion and communicating to the community members about services and
programs offered at the health centre. In Apitong, the focus of the BHWs, BSPOs, and BNSs was
on family planning, maternal, and child care, while the homecare volunteers focused on older
people’s care in the community, for instance, they supported older people via basic health
monitoring (e.g., taking of blood pressure) and helped them to register for the PhilHealth
coverage. All volunteers, except for the homecare volunteers, receive an honorarium. The
BSPOs and BNSs receive an honorarium of PHP 3,000 (about CAD 74.40) per month (of which
PHP 2,000 are from the city's budget, and PHP 1,000 are from the barangay’s budget). The
BHWs receive an honorarium of PHP 1,500 per month (about CAD 37.20) (of which PHP 1,000
are from the city's budget, and PHP 500 are from the barangay’s budget). The BHC is opened
Monday to Friday with a nurse, midwife, BHW, and BNS on duty.

4.3 Description of the Case

The case for my study was a single group of older women living in poverty, who were
widowed, head of household, and living in a disaster-affected community (barangay Apitong), in
Tacloban City, Philippines. In this section of the chapter, I provide a thick description of the case by presenting the background information of each participant. Firstly, I describe the demographic profile of the four participants, which include their full and nick names (as I mentioned in Chapter three, pseudonyms were not used as participants choose to be identified by both their full and nick names), year of birth and age at the time of data collection, the ethnolinguistic group they identified with, living arrangements, employment or livelihood sources, highest education obtained, and religious/spiritual group they identified with.

Secondly, I delineate the poverty measures of each key informant using the adapted version of the MPI indicators, which included measuring poverty across four dimensions: education (two objective indicators), living standard (six objective indicators), health (one subjective indicator), and income (one objective indicator) (UNDP & OPHI, 2016). Poverty, based on this instrument, was defined as being deprived of three or more indicators, and the more indicators a household was deprived of, the more severe the poverty was considered to be.

Third and lastly, to complete the background profile of each key informant, I summarize the life review interviews (individual interview 3) in a narrative form to provide a glimpse of the participants’ personal and historical contexts. I provided the details of this interview in Chapter three, and Appendix L was the interview guide. Noting that the informed consent process was ongoing, I ensured that the participants had the opportunity to review the final written summary of their life story. I visited each of the participants with the translator and read back to them what I wrote. The purpose of the meeting (which was not audio-recorded) was to ensure the accuracy of the information, to provide an opportunity for the participants to add, remove, or change any information, and to receive their informed consent to share their life review story in my dissertation and other potential outlets. Furthermore, the participants received a printed copy of
their life review story (in both English and Waray) as this was requested from one of the participants who wished to share a copy of the summary with her grandchildren.

4.3.1 Nanay Aca.

In the Philippines, when addressing older people who are not part of your family the word Nanay for older women or Tatay for older men (which literally translates in Tagalog to mother or father) is said prior to their name as a sign of respect (K. Pagsolingan [COSE Staff], personal communication, March 17th, 2016). Therefore, throughout this section I referred to all the participants as Nanay (along with their names). Ceriaca Metela Martinez, known as Nanay Aca in the community was born in 1935 in Santa Fe, Leyte, Philippines. She was 81 years old at the time of data collection. Nanay Aca identified as a member of the Waray ethnolinguistic group, which was the local language/dialect spoken in Tacloban City. At the beginning of data collection (March to August 2016), she was living with her youngest son (who also resided in Apitong). However, near the end of data collection (September 2016), she moved into her newly built house, which was in a subdivision of Apitong (Purok 1) that was closer to the mountainside, where she lived alone. She had advised me about her plans to move prior to her recruitment (during the informed consent process when I confirmed that each of the participants met the recruitment criteria detailed in Chapter three) and therefore still qualified to participate in the study. There were seven subdivisions in Apitong titled Purok 1 to 7, and Purok 1 and 3 were closest to the mountain. Nanay Aca’s new house was built on the same land as the houses of some of her adult children and grandchildren, which made them neighbours.

Regarding work, she was engaged in the informal sector and her source of income was derived from a variety of livelihoods, which included: a sari-sari store (a neighborhood variety store that sold essential commodities such as soap, shampoo, salt, and sugar, in small and
affordable packages) operated within her house, selling cash crops from a small farm by her house, making and selling butchi (which was a Filipino deep fried floured snack), and raising chickens. In terms of education, grade six was the highest education level she obtained. Lastly, concerning religion/spirituality, Nanay Aca identified with the Roman Catholic faith.

**4.3.1.1 Poverty measures of Nanay Aca.**

Regarding the educational dimension of poverty, Nanay Aca was not considered deprived based on the two indicators. She had completed grade six, and she did not have any child in her household, whereby their schooling (grade one-eight) had been disrupted or halted, as she lived alone. Concerning the standard of living dimension, Nanay Aca was considered deprived in four out of the six indicators, which included deprived if the household 1) cooked with dung, wood, or coal, 2) lacked improved sanitation (or shared improved sanitation facilities with others), 3) had dirt, dung, or sand as floor, and 4) did not own more than one modern household asset (which included a radio, TV, telephone, bike, motorbike, refrigerator, and car) (UNDP & OPHI, 2016). In terms of the subjective health indicator, when I asked her to describe her overall health she stated:

I have a good body, though I have normal signs of aging like knees and I am also forgetting from time to time. It is all natural for my age, but it is just the knees that are my problem. That is why I always exercise my body and do things, like stretching.

She also mentioned experiencing body pains, “when I am feeling some pain, I need a massage, and I only want my daughter to massage me.” Therefore, based on what I described about health deprivation in Chapter three, she was not considered deprived. Regarding income, Nanay Aca estimated that her gross household income was about PHP 250/day (approximately CAD 6.20 or USD 4.75). At the time of data collection, she said she was not receiving a social pension. Based
on her income, she was not considered to be moderately poor, which was defined as living on less than USD 2.50/day (World Bank, 2013). Overall, Nanay Aca was considered to be deprived based on four indicators; all of which were related to living standards.

4.3.1.2 A summary of Nanay Aca’s life story.

When recalling significant events from her childhood, Nanay Aca spoke about World War II and the Japanese occupation of the Philippines. In 1941, when she turned seven years old she started attending school, but shortly after (about three months) the Japanese invaded the Philippines and she had to stop going to school because it was not safe. Nanay Aca said that she and her family had to evacuate their hometown of Santa Fe Leyte and move to Tacloban City, as the “Americans told [them] it would be safer there.” It was during this time that her mother fell ill and died. Her father and her five siblings arrived in Tacloban City safely and settled in Apitong by the mountainside, where she currently resides.

She recalled that in 1945 the “Americans recaptured the Philippines,” and she was able to return to school, which she continued until grade six. Her father remarried and she and her siblings were sent back to Santa Fe to live with their uncle and aunt, who had no children. They were there to work on his farm. She spoke about her teenage years as a time where she learned about farming but also a time of difficulty: “we were like orphans, and we needed to work for us to have food. Even though he was our uncle, we still had to help in order to get fed.” Being one of the eldest, she assumed the responsibility and care for her younger siblings, as she shared, “I had to work for my siblings, and for us, not to be thrown out by our aunt.”

When Nanay Aca was 17 years old, she met the man who would become her husband. Although he had asked her to marry him, she refused and advised him that he had one year to own a house and have a secure livelihood, and then she would marry him. Nanay Aca mentioned
that her responsibility of caring for her younger siblings, who were dependent on her, meant that she could not marry someone who was not financially secure. A year later, when he had acquired a house and a livelihood, they married. She recalled her wedding fondly, the ceremony was held at the St. Nino Church, which she described as “one of the most beautiful churches in Tacloban.” She recalled that the wedding was the beginning of more memorable moments with a marriage described as a harmonious one and when her life as a mother began. Together, they had nine children, and although she did not formally work, she would help her husband on the farm and also volunteer, occasionally, in the community.

In 1983, Nanay Aca became officially engaged in the civic life in Apitong, when she was elected as a barangay councilor, after two unsuccessful attempts. She recalled that when she was campaigning, she was a grandmother and always had her grandchild at her side while talking to the community members. Nanay Aca also discussed how her efforts to become a councilor were frowned upon by her husband’s family, who told her that she had already failed twice and questioned why she would persist, since she was already old and a grandmother. They insisted that she should stay home to be a caregiver. However, Nanay Aca was determined to pursue her campaign, because her interest in becoming a councilor was fueled by her desire to address the problems that she saw were affecting some of her children and her community.

She attributed her success in winning the election and becoming a barangay councilor from her time as a volunteer in the community. She spoke with great pride about this success as she shared:

I did not really expect that to happen because I was only an elementary graduate. At that time, there was a powerful family who had been holding those positions for a while, and they did not expect me to win. They said that I was not known, but they became surprised
when I did win. I was a volunteer that was dedicated to pure public service, and maybe the people had seen that. It was during this time that I realized this position was not only for those who have high educational attainment, but it could also be for people, like me, who was just an elementary graduate.

Nanay Aca was a councilor for two terms (1983 to 2003) and, during her tenure, she also took on the role as a BHW. It was the first time the government declared that each barangay should have a health worker and she was one of the first people in Apitong to be a BHW. In 2003, she was not re-elected, and she attributed this loss to vote-buying, which was, although illegal in the Philippines, a common strategy practiced in the country during political elections to obtain votes from citizens (Abocejo, 2014).

When asked about her life currently, Nanay Aca spoke about her family with pride and love. She said, "I am most proud of my children. They really respect me as their mother. Also, with my grandchildren they also respect me.” She identified they were the most important people in her life. She had nine children (two of whom have died), 48 grandchildren, and 33 great-grandchildren. Nanay Aca mentioned that as she continues to age into her elder years, she was aware that her physical mobility would decline. However, she would continue to farm and oversee her sari-sari store, because that was her way of exercising and maintaining her strength. Nanay Aca prided herself on her independence. At the same time, she acknowledged that she would need to rely more on her children as she ages. She expressed that they would take care of her and was not worried about being abandoned by them. At the same time, she wanted them to be happy and for her not to be a burden to them. Lastly, concerning her future, Nanay Aca said that she was not “hoping for a large number of years [of life] but for a peaceful trip back to Him [God].”
4.3.2 Nanay Pipay.

Pelipa Ogardo Martillano, known as Nanay Pipay in the community was born in 1948 in Guian, Eastern Samar, Philippines. She was 68 years old at the time of the data collection. Nanay Pipay identified with the Bisaya/Binisaya ethnolinguistic group, however, she also spoke Waray. She lived in subdivision 3 (Purok 3) of Apitong, and her house was on top of the mountainside (approximately 50 metres from the base of the mountain). She lived with her youngest son, who recently graduated from college with a scholarship, but was currently unemployed, and her orphaned grandson who was 11 years old and in primary school. She was employed in the formal sector as a barangay aide, which involved doing custodial work Monday to Friday. Although this was her main source of income, after her formal workday ended around 4:00 pm, and on weekends, she also sold vegetables and homemade fans in the market for extra income. Second-year high school was the highest education level Nanay Pipay had obtained as well as having some vocational training for dress-making. Regarding religion/spirituality, she identified with the Roman Catholic faith.

4.3.2.1 Poverty measures of Nanay Pipay.

Nanay Pipay’s household was considered educationally deprived. While she and her adult son had completed grade six, her grandson who was currently in school (grade four) had his schooling interrupted by typhoon Haiyan in 2013 and typhoon Ruby in 2014 (approximately 4 months after Haiayn and 3 months after Ruby). In terms of standard of living, she was deprived in five out of the six indicators, namely the household: 1) cooked with dung, wood, or coal, 2) lacked improved sanitation (or shared improved sanitation facilities with others), 3) lacked access to safe drinking water (or had to travel 30 minutes or more, roundtrip, to access safe drinking water), 4) had dirt, dung, or sand as floor, and 5) did not own more than one modern
household asset (which included a radio, TV, telephone, bike, motorbike, refrigerator, and car) (UNDP & OPHI, 2016). When asked to describe her overall health, she said, “I have this problem with my eyesight [referring to her cataracts]. During the night time, I cannot see, but I am used to it now, and I also have problems with high blood pressure.” Furthermore, she explained that sometimes she experienced aches and pains throughout her body. Based on her responses (e.g., untreated cataracts), she was considered health deprived.

Concerning income, Nanay Pipay’s gross household income was derived from her salary of PHP 1700/month (approximately CAD 42.20/month) as a barangay aide and any additional income she made from selling vegetables, which she estimated to be PHP 100/day to 120/day (approximately CAD 2.50-3.00/day). She clarified that there were times when she could not make it to the market to sell and times that she made less than PHP 100/day. Lastly, at the time of data collection, she said she was receiving a monthly pension of PHP 1000 (approximately CAD 24.80), as the beneficiary of her deceased husband’s social security system benefits. However, she mentioned that only her youngest daughter, Lorna, who was still in college (in another province) supported by a scholarship, used the money. I did not include the pension as part of her daily income, nor the little income (PHP 40/fan) she received selling homemade fans which was very infrequent and not a part of her regular income (e.g., she said she would make two to three fans in one month but then on another month she might not make any). Therefore, Nanay Pipay made PHP 60/day (approximately CAD 1.40/day or USD 1.20/day) and was considered to be experiencing extreme poverty, based on the UN’s definition of living on less than USD 1.25/day (UN General Assembly, 2014). However, when applying the national poverty standard in the Philippines, which was defined as a poverty threshold of an annual per capita of PHP 16,841 (approximately USD 1.00/day), she was not considered to be living in
poverty (PSA National Statistics Coordination Board, 2009). Overall, Nanay Pipay was deprived based on 8 indicators across all four dimensions of poverty (education, living standards, health, and income).

4.3.2.2 A summary of Nanay Pipay’s life story.

Nanay Pipay recalled her childhood memories growing up in Samar as the youngest of four daughters with her parents who were farmers. She remembered her mornings as a child having sweet potatoes for breakfast before heading to school. She discontinued school during her junior high years, due to financial challenges experienced by her family after which she began working by washing peoples’ laundry. She saved up enough to go back to school, but after the second year of high school, she again dropped out due to financial reasons.

At 17 years of age, her parents arranged for her to marry a man who lived in the same barangay as her in Samar. She did not want to be married, but she said that back then she had no choice. She and her husband then moved to Tacloban City, where they both found employment as live-in domestic helpers to a wealthier family. She was 20 years of age when she gave birth to her first child, and at the age of 49, she gave birth to her youngest child. They had 12 children together, but four are deceased. She mentioned that when her children were small, life was difficult as they struggled to support their children through school with a very limited family income. For example, she shared a time when she and her husband got into an argument, and he left the city while she was pregnant with her second child and she had to return to her hometown so that her family could support her. However, soon after they reconciled and moved back to Tacloban City where he found employment in the rice factory and she continued to wash people’s laundry.
In 2002, her husband passed away which resulted in her being the sole breadwinner and caregiver for her children. Life, she stated, became even more of a struggle. She recalled that during this time she had gone into debt by taking out loans, which she did not like to do, but she had to support her children. During, that time she was able to find employment as a barangay aide, which she continues.

When asked about her current life, Nanay Pipay articulated that life continued to be a struggle because of financial challenges. For example, as her youngest daughter was still in college, she needed money for school. She reiterated that was why she sold vegetables in the evening and on her days off, to make additional income for her daughter. When asked about what she was most proud of, she immediately responded her children. In particular, she explained that two of her children received scholarships to complete college. When asked about her thoughts for the future, Nanay Pipay focused on her immediate situation in that she hoped to move out of her current house located on the mountainside, which was not only a daily struggle for her to go up and down for work but was a dangerous place to live as it was prone to landslides during heavy periods of rain and typhoons. She also wished to work less in the future.

4.3.3 Nanay Corit.

Born in 1948 in Tacloban City, Anacorita Dacatimbang, was known as Nanay Corit in the community. Sixty-eight years of age at the time of data collection, Nanay Corit identified with the Waray ethnolinguistic group. She lived in subdivision 2 (Purok 2), which was on the main road of Apitong leading out to the highway, with four of her grandchildren, aged 10, 14, 17, and 19. The three youngest were in school and her eldest grandchild was working. Additionally, her youngest son (the father of two of the youngest grandchildren), a construction worker, was often away for extended periods (e.g., 4-8 months) working on construction
projects, although he sometimes stayed at the house when he was out of work. The two older grandchildren who lived with Nanay Corit were children to her other son who died and their mother (whom they do not have contact with) moved away to Manila.

Concerning work, Nanay Corit was engaged in the informal sector, operating as a food vendor, cooking and selling prepared food from the front of her house. This activity was the household’s primary source of income. However, her youngest son contributed financially, when employed he sends money to her. At the time of data collection, he was away in Manila for work, and he would send PHP 500-700/week (approximately CAD 12.50-17.50/week).

Regarding education, the highest education level obtained by Nanay Corit was grade six. In terms of religion/spirituality, she identified with the Roman Catholic faith.

**4.3.3.1 Poverty measures of Nanay Corit.**

Nanay Corit’s household was considered to be educationally deprived. While she had completed grade six and two of her oldest grandchildren did not have their schooling interrupted from year 1 to 8 (albeit after year 8 their schooling was disrupted due to typhoon Haiyan and Ruby), two of her youngest grandchildren had their schooling disrupted because of typhoon Haiyan in 2013 and then again by Ruby in 2014. Regarding the standard of living dimension, Nanay Corit was considered deprived in three out of the six indicators, which included the household 1) cooked with dung, wood, or coal, 2) lacked improved sanitation (or shared improved sanitation facilities with others), and 3) had dirt, dung, or sand as floor (UNDP & OPHI, 2016). When asked to describe her overall health, she said:

First, because I am already old, sometimes I have problems when I walk, and when I am riding in a tricycle [which is a motorbike with an attached sidecar that is situated lower to the ground], my knees sometimes feel weak. Second, I am not really prone to any
illnesses but because I am old I am feeling pain with my arm . . . [Also] when I sit down, that is the time that I am feeling the pain. That is why I just want to work because I cannot feel the pain when I am busy and working.

Based on Nanay Corit’s response, she was categorized (based on the measures I adopted in this study) as health deprived because of her experiences with chronic pain.

Nanay Corit’s gross household income was about PHP 700/daily (approximately CAD 17.50/day), which included the money sent to her by her son when he was working. Albeit, when he was not employed, then the gross household income was about PHP 600/day (approximately CAD 15.00/day or USD 11.50/day). At the time of data collection, she said she was not receiving any form of social pension. Based on this income, her household was not considered to be income deprived. Overall, Nanay Corit’s household was deprived based on four indicators (which fell under the living standard and health dimensions).

4.3.3.2 A summary of Nanay Corit’s Life Story.

Nanay Corit began her story by sharing fond childhood memories (before attending primary school) of following her mother to the market to sell crabs, while her father was farming. She completed grade six but could not continue as it was difficult for her parents to support 12 children. Thus, when she was 12 years of age she was sent to work as a live-in domestic helper for her godmother, who did not have any children. She was not paid a salary until she was 20 years of age, but they would feed her, buy her clothes, and other needed items. She lived with her godmother up until the age of 21 and described her life, up until that point, as carefree and problem free.

Nanay Corit moved out of her godmother’s house at age 21, when she married. She met her husband at a community benefit dance, and he also lived in Magallanes (the same barangay
where she lived with her godmother). After marriage, they lived in his mother's house until they had their first child, after which they lived in their own house. She recalled that this was the time that life became a daily struggle, particularly, when they had their second and third child (they had a total of five children). Her husband could not find a secure and regular job, and she washed people’s clothes for money while caring for her young children. With young children to feed and support, Nanay Corit said it was often difficult to make ends meet with their limited and irregular income. She explained that this was when “we really started to experience a hard life.” It was only when her children started to get older and were able to work that life became a bit better. For example, she mentioned that when her eldest son started his first job as a pedicab driver (a person who rides a tricycle transporting passengers or goods via small distances), and then later as a foreman construction worker, he contributed significantly more to the household income, than her husband.

At age 45, Nanay Corit recalled another significant event that occurred. Tired of washing people’s clothes as her sole source of livelihood and income, she took a risk and started her own business. She decided that since her children were now old enough to take care of themselves, she would take out a loan and start her own business, which continues to be her source of livelihood today. Operating as a food vendor from her house was described as a source of pride for Nanay Corit. She outlined that she woke up every morning at 3 am to go to the market to purchase the ingredients to prepare the food for the day. She described the trip to the market as her morning exercise walk. By 7 am the food was all prepared and was ready to be displayed in front of her house for sale and by 10 am all the food was sold to the community members, who purchased it for their breakfast, en route to work.
When asked about the future, she spoke about how she wants to continue to run her business, to make her income, and to support her children and grandchildren when they need her.

4.3.4 Nanay Fe.

Known as Nanay Fe in the community, Perpetua Aranas was born in 1947 in Calubian, Leyte, Philippines. At the time of the interview Nanay Fe was 69 years old. She identified with the Cebuano ethnolinguistic group but also spoke Waray. She lived alone but lived very close to her family (they were her neighbours). While she identified as a widow, Nanay Fe mentioned that she had a partner who she called her boyfriend. He lived in another barangay in Tacloban City but visits her on a weekly basis. She lived in subdivision 1 or Purok 1 of Apitong, which was close to the mountainside. Regarding work, Nanay Fe was engaged in the informal sector, as a sari-sari store operator. For extra income, she also provided massages for people in the community. Regarding education, grade six was the highest education level she obtained. In terms of religion/spirituality, Nanay Fe identified with the Born Again Christian faith.

4.3.4.1 Poverty measures of Nanay Fe.

Nanay Fe was not considered deprived regarding education because she had completed grade six and since she lived alone, there were no children in her household who had their schooling disrupted or halted. Regarding her standard of living, Nanay Fe was considered deprived in three out of the six indicators, which included the household: 1) cooked with dung, wood, or coal, 2) lacked improved sanitation (or shared improved sanitation facilities with others), and 3) had dirt, dung, or sand as floor (UNDP & OPHI, 2016). When asked to describe her overall health she explained “I do not have any severe illness, but I have some heart problems that always makes me feel tired.” Furthermore, she mentioned that she experienced pain in her knee pains from time to time. Based on Nanay Fe’s response she was categorized as
health deprived due to the chronic fatigue she identified (in Chapter three I detailed how health deprivation was defined in this study). Regarding income, Nanay Fe’s approximate household income was between PHP 200 to 300 day (about CAD 4.80-7.20/day or USD 3.80-5.70/day) and she reported not receiving any form of social pension at the time of the interview. Based on this information, she was not considered to be income deprived. Overall, Nanay Fe was considered deprived based on four indicators relevant to living standards and health.

4.3.4.2 A summary of Nanay Fe’s life story.

Nanay Fe began by sharing that life was “not hard” during her childhood years until she married at age 14. It was a marriage arranged by her mother and she described being forced to marry a 27-year old man. They had seven children and a month after giving birth to the seventh child, her husband left them. She was still living in Calubian (a different municipality in Leyte, where she was born), and her only source of income was through selling street foods (e.g., barbequed skewers of chicken hearts, gizzard, and liver) was insufficient to support all of her children. She asked her mother for permission to move to Tacloban City where she could find better employment, while her children remained under her mother’s care.

She was 30 years of age she moved to Tacloban City, and she described this time of her life as enjoyable; she said she was able to live the teenage and younger adult life that was taken from her. She explained, “It was here [in Tacloban City] where I could experience the sweetness of being young." During her time in Tacloban City, she was able to have a social life and bond with friends. However, financially speaking, she was still struggling. The salary from her first job, working at a store was not adequate. After paying for boarding and expenses, her income was not enough whereby she could send money to support her children. Luckily, another
boarding house resident was a security guard and helped her to secure the same job. Although the job paid a higher salary, it was still not enough to support all of her children.

Another significant event happened during Nanay Fe’s first few years in Tacloban City. At age 31 she met her second husband, who she married out of love. She described him as “a loving, caring, and supportive man.” He was previously married and had four children (who did not live with him). Nanay Fe and her second husband did not have children together; he had adopted her children and supported them, brought them to Apitong, and they became a family. This time was also when Nanay Fe ended her job as a security guard because her husband encouraged her to stop working as he could provide enough income as the sole breadwinner in his position as a construction foreman. She shared that during this time she focused on the children and began to operate a small sari-sari store. She said that raising her children, being a housewife, and operating her sari-sari store, was her life up until her husband past away in 2015.

When asked about life currently, she said that the most important people were her children and her boyfriend. They were always willing to be there for her and help her whenever she was in need. For example, she shared that sometimes when her boyfriend would visit he would bring rice for her. Nanay Fe stated that although she met her partner and the courtship began, shortly after her husband passed away, she refused to make it official until a year after the death anniversary as a sign of respect for her late husband. She described her current partner with the same characteristics (e.g., “loving, caring, and supportive”) that she valued in her late (second) husband. Lastly, when asked about her future, Nanay Fe stated, “I am hoping that I could have a better life, a better source of income, and to live better.”
4.4 Research Findings

In my study I sought to answer the following research questions: 1) during the mitigation phase of the disaster management cycle or non-disaster times, what are the key individual and environmental drivers of resilience for a group of older women living in poverty, who are widowed, head of household and living in a disaster-affected community in the Philippines? and 2) how do these factors and processes shape resilience? In this section, I present the research findings and supporting evidence. Through thematic analysis, I identified seven environmental (employment/livelihood(s), land tenure, housing, kinship relationships, healthcare disparities, spirituality/religiosity, gendered roles, norms, and stereotypes regarding older women) and one individual (value towards independence and dignity) drivers that were key in shaping these women’s resilience.

For each factor or process, I provide a short statement summarizing the theme or subtheme, and I outline how the theme was identified (e.g., either because it was presented in the discussions shared by all four participants or it was only evidenced in the discussions by some participants but "capture[d] something important about the overall research question(s)" [Braun & Clarke, 2006, p. 82]). The evidence I present were primarily derived from the individual and focus group interviews, and was therefore shown in the forms of quotes, attributed to the participant. Also, throughout this section, I have integrated participant and researcher-generated photographs that were relevant to the theme and contribute further to the vicarious experience characteristic of reading a case study report (Merriam, 1998). An important note regarding the participant-generated photos was that some are not taken by the participants as they were in the image itself, but I still referred to the photos as participant-generated media as it was taken from their cameras and directed by them.
In addition to providing the findings and supporting evidence for the research questions, in this section, I present the findings related to three additional topics: i) factors and processes that drove resilience during the response and recovery stages of the disaster management cycle, ii) the peer interviews, and iii) the research process. The main focus of my study was to understand factors and processes during the mitigation phase that shape and influence resilience. Albeit, as I mentioned in Chapter one, disaster management is not a linear process, and the disaster phases sometimes overlapped (Contreras, 2016). Identifying these themes contribute to a greater understanding of the interconnectedness of the disaster stages, and what drivers change or remain constant throughout the various stages, for example.

The objectives of the peer interviews were to provide an opportunity for capacity building, triangulation and for the participants of my study (peer interviewers) to gain more insight/knowledge into their own experiences, ideas, and perspectives about resilience. The findings from the peer interviews were presented in this chapter for triangulation and also to shed insight into how similar or different the experiences of the participants were from their interviewees. As I mentioned in Chapter three, the peer interviews were not audio-recorded but the participants were provided with a notebook with the interview questions (see Appendix M) and also to write notes concerning the responses of the interviewees. The notebook itself was not collected as data, because the participants referred to these notes when contributing to the focus group three discussion.

Lastly, throughout the interviews and focus groups I had integrated questions regarding the research process to make any changes (during data collection) necessary for the process to be more appropriate or comfortable for the participants. At the same time, identifying themes from
these responses provided methodological insights. Therefore, I also presented the findings and supporting evidence regarding the research process.

4.4.1 Factors and processes during the mitigation phase that shape resilience

4.4.1.1 Environmental drivers and themes.

The seven environmental factors and processes that were key to shaping the participants’ resilience during the mitigation phase of the disaster management cycle were: i) employment/livelihood, ii) land tenure, iii) housing, iv) kinship relationships, v) healthcare disparities, vi) spirituality/religiosity, and vii) gendered roles, norms, and stereotypes regarding older.

4.4.1.1 Theme: The participants’ income from their employment and livelihood(s) were used to meet critical needs.

I identified this theme in the discussions with all four participants. For instance, Nanay Pipay shared that it was difficult to rely on her salary as a barangay aide, to purchase food for daily consumption, because her salary was paid out monthly. She stated “I cannot rely on the salary because it is given monthly. I am also ashamed to borrow money from others.” Having the additional livelihood of selling vegetables was necessary for her to buy food. She shared:

I am always checking the container of our rice to see if there is still rice for us. If there is none, I will sell vegetables so that I can buy some. With the vegetables, sometimes I can make between PHP 100 to 120 [approximately CAD 2.50-3.00/day], and that is it, but I can already buy a kilo of rice and half a kilo of fish for us.

Selling vegetables was also a way for Nanay Pipay to support her youngest daughter, who occasionally asked her for money to pay for school-related costs. Nanay Pipay stated, “my youngest comes here and asks for some money for her studies. That is why I still sell
vegetables.” Furthermore, during a visit to Nanay Pipay's house to remind her of an upcoming focus group I came across her making fans. She told me that she learned this skill in her hometown of Samar and when she had time she would make some to sell at the market to supplement the family’s income. During this visit, I took the photo below, which showed Nanay Pipay making the fan.

![Nanay Pipay making fans](image)

**Figure 3. Nanay Pipay making Fans to Supplement her Family Income**

Similarly, Nanay Corit spoke about the importance of her livelihood for buying food for consumption. She shared, “the most important is my livelihood. I do not want to stop working because it will make me weak if I stop. I need my own income to be able to buy food.”

Another example of how the participants’ livelihoods were used to meet daily needs was highlighted by Nanay Fe. In addition to operating her sari-sari store, she occasionally did massages for others to enhance her income to use for daily living, as she stated, “sometimes someone comes here for massages, and that adds up my money for everyday living.” The two
photos below were taken by Nanay Fe, and the photos captured her main livelihood source, which was the sari-sari store.

![Figure 4. Nanay Fe’s Sari-Sari Store from the Inside](image)

Furthermore, two of the participants added that they also used the income gained from their livelihoods to meet another critical need which was to enhance their income potential. For instance, Nanay Aca explained how she saved her profits from her sari-sari store to invest in pig-raising. She stated:

> From my sari-sari store, I was able to save PHP 2,500 [approximately CAD 62.00], and I used the money to buy a pig, and now my pig is already big and ready to be sold.
Someone recently asked me to sell it at PHP 6,000 [about CAD 149.00], but I did not sell it because I did not know what to use the money for yet.

The photo below was directed by Nanay Aca and taken with her camera. In the photo she showcased one of her livelihoods, which was the sari-sari store operated from her house.

Figure 6. Nanay Aca showcases her Sari-Sari Store

Nanay Corit agreed with Nanay Aca, as she shared that she was always looking for opportunities to enhance the income potential of her canteen. She stated, “I am always thinking of finding money to build my livelihood, like buying more [cooking] pots so that I can cook more food to sell so that I can have more income." The photo below was directed by Nanay Corit and taken from her camera. In the photo Nanay Corit showcased her livelihood as a food vendor.
4.4.1.1.2 Theme: Land tenure insecurity contributed to an ever-present threat of eviction and living in a hazard-prone area.

I found this theme to be present in the stories shared by all four participants. Although all of participants in the study lived in Apitong for at least 30 years, they did not have any formal title or ownership of the land on which they had built their house. The threat of eviction, while ever-present was perceived differently by the participants. For instance, Nanay Corit shared her concern that she might need to relocate in the immediate future:

Yes, I might need to relocate soon, because this place [referring to her house] is also a part of the road as you can see this land here is part of the road, and once the government will build a larger road we will have to move out, but I do not know when, because no one has told me about the relocation or anything.

Nanay Corit’s house was built on the main road (which was a government-owned land) that leads out to the highway. At the time of data collection, the road was under-construction to be widened, and she suspected that the rest of the road would eventually be under-construction,
necessitating her to move. If Nanay Corit was forced to evict, it would significantly impact her livelihood, as she elucidated:

My livelihood is selling food, and it is my advantage that I am here in this location because it is near the road where there are so many people who pass by. My canteen is convenient for people to grab breakfast before they go to work.

Similar to Nanay Corit, Nanay Aca also faced an ever-present threat of eviction. During data collection, Nanay Aca was building her house on land that her family lived on, including the daughter she was closest too. Nanay Aca explained that this land was owned by her aunt, but their family had no formal land titles, as she explained:

After WWII, I came here because the sister of my father was living here. She was the youngest sister of my father, and she told my father that we could live here. This land here is ours, but we do not have the declaration [land title] of this land. During that time, you did not need to have a large amount of money to buy land. Way back then, you could buy land with just one sack of rice.

She further shared that because they did not have a formal land title, the land was claimed by someone else:

The current owner has an official title, and he came over and said that he owned this land because someone sold it to him. My family here were telling me that we should challenge him because it really belongs to our family. I am a witness to that as I am the oldest living person who really knows who owns this land, but then the other party has the titles. So, my family and I do not have any hold on this land.
However, the person who claimed the land had not taken any actions, yet, that would force her family to relocate. Furthermore, before building her new house, Nanay Aca had even asked permission from the new owner to settle on the land. She stated:

I am not really thinking about the ownership of this land; I just want a place where I can build a house and live in it. But the problem between my family and the new owner of this land continues. Before building my house, I asked permission from the current owner of this land.

Therefore, unlike Nanay Corit, Nanay Aca did not perceive the threat of eviction as immediate or severe.

Like Nanay Aca, Nanay Fe’s house was also built on private land that was not owned by her. She was however, not sure who legally owned the land as she explained:

I do not really know who owns this land. Someone said that it belongs to Dr. [name], but it is being argued that Dr. [name] just arranged some papers and he does not really own it. He does not have a title, just a tax declaration.

She also shared how in the past she was approached by someone who claimed he owned the land and asked her to leave in return for a lump sum of money:

We were even asked by [name] to leave the land, and that he will give me PHP 3000 [approximately CAD 74.50]. At that time, we had a secure livelihood. That is why I told him that I would be the one to give him PHP 3000 and he could destroy his house and see how it feels not to have a place to transfer to. I was not afraid of him or anyone, and yes, I told him that. I may not have a proper education, but I can face them.

Furthermore, Nanay Fe expressed how she was not as concerned about the threat of eviction because of her discussions and interactions with a National Bureau of Investigation (NBI)
Although, it was important to note she had this conversation with the NBI officer about 20 years ago, as she recalled:

An NBI officer had talked to me before and said that if someone comes to claim the land, they could not make me move because he [the NBI officer] said that I was there for a long time and I already had a share of the land. Also, they did not have a title for this land. This happened when we were just 10 years living here, how much more now that it has been 30 years living here?

Unlike all three of the participants (Nanay Corit, Nanay Aca, and Nanay Fe) Nanay Pipay’s house was built on the mountainside. Her experiences and struggles with being forced to relocate numerous times over more than 40 years living in Apitong had led her to settle within a hazard-prone area, as she outlined:

I have lived here since 1969, and because we just did not own any land, we have transferred from different parts of Apitong five times, since being here for over 40 years. It was very tiring that every time we settle down, we would be asked to move.

Also, she shared that before moving to the mountainside she had settled at the base of the mountain, which was land owned by the government. She had to move because a new road was being built (a similar situation to which Nanay Corit currently faces), but she was reimbursed by the government for relocating, as she explained:

Yes, our house was just down there [pointing to the base of the mountain], but because of the road construction, we were forced to transfer up here. Since there was this road construction, we needed to move out, but we were given an amount of money for the relocation.
Furthermore, she explicated that they moved to the mountainside because they could not find any other land within Apitong to settle on nor afford to pay rent on such lands:

Our main problem was that we did not own any land where we could build a house, so we were forced to build it here [referring the mountainside] because the others did not allow us to build on their lands. Also, we could not afford to pay for rent if we lived down there. The house up here - no rent to be thinking about.

Despite being rent-free, living on the mountainside was neither ideal nor safe, as Nanay Pipay shared:

I am most concerned that when a typhoon happens that we are all going to roll down this hill with our house. I am also afraid that one day, walking up and down the mountain, I will slip and fall. I prefer to move down there because living up here is not convenient for my job especially now that I am getting older. I am not as good with climbing up and down the mountain.

Figures 8 and 9 are two images that were taken by me to illustrate the mountain and the base of the mountain where the road was located. The third photo (Figure 10), was taken by Nanay Pipay with her camera, and it showed the physical environment immediately outside her house.

Figure 8. A View of the New Road that was Constructed at the Base of the Mountain
4.4.1.3 Theme: The participants’ houses were not physically resilient and were vulnerable in the face of disasters.

I noted this theme in the stories shared by all four participants. For example, Nanay Corit expressed how she felt about the safety of her house during a typhoon:

Actually, this house is not safe for us if another typhoon happens. If there will be a typhoon coming, we will be finding a house that is safer. We will go to a neighbor that has stronger walls and a roof that we can stay in. Just like during Yolanda [the local name for typhoon Haiyan], we stayed there [pointing to a nearby house] in that house, because
it was new. It was newly built and fully furnished, and the owner allowed us to stay there during the typhoon, and that was why we were safe.

Furthermore, she explained how her current house was rebuilt using old parts that were gathered from other houses and her own, in the aftermath of typhoon Haiyan, noting:

It was the reused parts from the other houses after the typhoon that we used to rebuild this house. But this roof is from my house, and this roof is of good quality I had it for 15 years.

The photo below depicted in Figure 11 was taken by Nanay Corit with her camera, and it captured the roof of her house.

![Figure 11. The Roof of Nanay Corit’s House from the Inside](image)

Nanay Fe echoed Nanay Corit’s thoughts, as she identified that while she was able to do minor changes to her housing structure after typhoon Haiyan, her housing structure was vulnerable when typhoon Ruby struck the Philippines on December 1st, 2014. Typhoon Ruby, categorized as a super typhoon, occurred less than a year after typhoon Haiyan hit the Philippines (National Disaster Risk Reduction and Management Council [NDRRMC], Republic of the Philippines, 2014). There are five categories of typhoons in the Philippines: tropical depressions,
which have “maximum sustained winds of up to 61 kilometers per hour (kph)”; tropical storms, which have “maximum wind speed of 62 to 88 kph”; severe tropical storms, which have “maximum wind speed of 89 to 117 kph”; typhoons, which have “maximum wind speed of 118 to 220 kph”; and super typhoons, which have a “maximum wind speed exceeding 220 kph or more” (Philippine Atmospheric Geophysical and Astronomical Services Administration [PAGASA], n.d., para. 2). Nanay Fe said,

> After the experience of a strong typhoon like [typhoon] Yolanda we decided to tie the roofs with nylon or any ties so that it would not be flying away again. We also doubled the nails on the roof. After Yolanda, another strong typhoon came, [typhoon] Ruby, and our roof stayed this time, but the walls did not.

She further reasoned why she was unable to make further improvements to her house:

> Yes, there is a difference to having a stronger and more secure house. Like ones made of cement will be safer. But since I do not have money for that, I am fine with this house until the end.

The following photos depicted in Figures 12 and 13 were taken by Nanay Fe, with her camera, to highlight the structure of her house.
Similarly, Nanay Corit shared the same idea as Nanay Fe, whereby she wanted to improve her house but was unable to due to financial limitations, she advised:

I cannot improve my house because I do not have money for it. If I do have the money, I will be building a house that is made of cement and that way it will not be crushed by any typhoons. That is what I want if I just had the money - a safer house.

Furthermore, Nanay Corit explained how her house was continually being restored because of reoccurring disasters, as she articulated:
After Yolanda, we made a temporary house, which was this house. Slowly after Yolanda, we were able to build a new part, so that it could be back to how it was before, but then there were typhoon Ruby and Senyang [both occurring on December 2014] that came, and that was why we could not build our house to what it was before. Even up to now it is not yet done.

Unlike the other three participants, Nanay Aca’s house was recently built, and this house was not where she had lived during the disaster. While she had already moved into the new home (near the end of data collection), she mentioned that there were still improvements she wished she could do to improve the structure of her house. She shared, “you see I am living in this house now, but it is not finished yet. I want stronger walls and a roof that will hold this house down when the typhoon comes.”

Lastly, while Nanay Corit, Nanay Fe, and Nanay Aca discussed how they would want to invest in building more resilient housing structures, Nanay Pipay shared that this was not something she would do and provided the following reason why: “For me, I am not building a stronger and better house because I do not own the land.” Through this quote Nanay Pipay showed how the theme of resilient housing structure was interconnected with land tenure security, which was the next individual driver I presented.

4.4.1.1.4 Theme: Kinship relationships were the primary source of social support for the participants, but such relationships could also produce adverse interactions or effects.

Kinship relationships, namely with adult children and grandchildren were the primary source of social support for the participants. Also, these relationships could produce adverse interactions or effects. I identified that this theme, which comprised of three subthemes, was elucidated by all the participants when sharing their experiences. The three subthemes were:
participants were recipients of social support, participants were providers of social support, and adverse interaction or effects of kinship relationships, respectively.

I found the first subtheme, participants were recipients of social support, to be present in all four participants’ responses. The participants in my study expressed how they received various types of social support from their adult children and grandchildren, which included what Kraus (2006) called tangible (e.g., helping you with household chores or errands and includes financial support) and anticipated (e.g., being able to count on someone to help you out if you were sick in bed) forms of support. Albeit, the majority of examples provided by the participants were of the former category.

For instance, Nanay Aca, who at the time of data collection was building her new house, shared that one of her sons, who lived in Manila, sent her money to help with the costs associated with building her new house. She referred to kinship ties expressing:

They [referring to her children] really provide great help to me, because I am their mother. I have my son, who would just text my daughter to inform her that he had sent the money to me, and I would use it for building my house.

Nanay Corit, who was the caregiver of four of her grandchildren, provided a similar example, whereby her son and one of her grandchildren would sometimes give her money. She shared:

My youngest son, who travels for work all the time, is giving me some money – PHP 500 or 700 [approximately CAD 12.40-17.40] a week because two of my grandchildren that live here are his. Also, my eldest grandchild works but his salary is for his own consumption, but sometimes he gives me PHP 200 [approximately CAD 5.00].

Alternatively, rather than providing money, Nanay Fe, expressed how one of her sons recently helped to improve her house, by replacing the current roof (which was made up of tarp material)
with a stronger one (made of metal sheets). She stated, “even yesterday, Mimi, [her 4\textsuperscript{th} oldest son] built my roof. He changed it to a harder roof.” Similarly, regarding non-monetary tangible support, Nanay Pipay, explained how her youngest son, who lived with her, helped out around the house, “my son, he is the one in charge of cooking, cleaning, and also fetching water because he does not have a job.”

Examples of anticipated support were provided by two of the participants. For instance, Nanay Aca said that as she ages and becomes more physically dependent on others, she anticipated that her family (in particular, one of her daughters) would take care of her. She noted:

The most important people in my life now are my family. I always think that as I age, I want to be near my daughter's [referring to the daughter she is closest too] house or at their house, because there will be a time that I will be weak and I will not be able to do things that I used to do, even with my own body. I want to be assured that someone takes care of me when that time comes. I want my daughter to always be with me because I trust her in taking care of me.

Nanay Fe also anticipated that she could rely on her kinship support if she fell ill, as she indicated her belief that her “grandchildren would be the ones that help me around the house when I am sick.”

Regarding the second subtheme, participants were providers of social support, which I identified in all four participants’ responses, it was evident from the interviews and focus groups that the participants offered social support to their families, in the form of tangible, anticipated, and informational support (e.g., providing advice or information to help you with a problem [Krause, 2006]). Although most examples provided by the participants referred to tangible
supports. For instance, Nanay Aca explained how she accompanied her son, who was ill, to Manila (a nine-hour bus ride from Tacloban City) for a particular diagnosis and explained:

My other son is sick, and sometimes I am the one who gives him the money for the [transportation] fare when they have to go to the hospital. The other day we went to the [bus] terminal and asked for help [to negotiate a discount on the fare to Manila], and I got him a free fare. I did not get a free fare but, good thing, I was able to use my seniors’ discount. I said it was fine, as long as one of us was free. His wife cannot not accompany him, because she is the one who is working for their living, and their children will have nothing to eat here [if she is gone].

Nanay Corit described a similar situation where she provided tangible and informational social support to her son who had health problems. She explicated:

. . . just like my son here, I was the one getting the papers for his operation. I was the one who found a way to have the operation for free, and I found a sponsor [to fund] his operation. During that time, my son could not work, and I could. So, I was the one who supported his family for the meantime.

The other two participants also shared how they provided tangible support. For instance, Nanay Fe expressed how she was able to contribute to her grandchild’s tuition fees: “I have this grandchild who is already now in college, and I actually helped him with his fees – PHP 1000 [approximately CAD 24.80].” While Ninay Pipay noted how, as previously mentioned in the discussion of the employment and livelihood theme, she offered tangible support to her youngest daughter by providing her money to pay for her school-related costs.

In addition to the examples provided by all four participants regarding how they afforded social support to their adult children or grandchildren, two of the participants further shared that
their ability to assist their family, gave them a sense of pride and made them feel needed or valued. For example, Nanay Corit mentioned, “I am also proud that I can help, even though I am old I can still help my children.” Nanay Aca offered a similar sentiment, in referring to her children, she stated, “they usually come here [referring to her house] and ask for help, financially or anything, and of course I help. Sometimes, I cannot help myself but say, ‘see, you still need me.’”

Lastly, I found that the third sub-theme, kin relationships could also lead to adverse interactions or effects, was evidenced in the responses of two participants. While, the majority of evidence regarding social relationships supported the finding that such relationships were a key source of social support, at times, there was testimony that supported the idea that social relationships with the immediate family could have adverse interactions or effects. For example, Nanay Pipay shared that the burden of responsibility fell on her to support her children and grandchildren:

You see, I still have a son that is single and is still living with me. I still need to take care of him. In other words, he is still my responsibility. I have a lot of mouths to feed. I also have my orphaned grandchild with me too.

While for Nanay Fe, she experienced adverse interactions with one of her sons as a result of having a boyfriend, as she explained:

I actually have this son of mine . . . we are not really that okay, because he is not in favour of me having a boyfriend, [and] he has talked to me regarding this issue. So now that I have him [referring to her boyfriend], my son has not supported me like how he used to. It is always him [referring to her boyfriend], now, that supports me.
On the other hand, Nanay Fe also mentioned how another son was still supportive of her, “My fourth son and his family are the ones I am closest to because I can tell that they really love me.”

4.4.1.1.5 Theme: The accessibility of healthcare services influenced the participants’ health-related decisions, behaviours, and actions.

I identified this theme in all four participants’ stories. This theme was comprised of five subthemes. I found that the first subtheme, accessibility was related to the participants’ financial situation, was present in two of the participants’ stories. The participants shared how their financial situation was a barrier to accessing healthcare services. For instance, Nanay Fe said, “the most important thing is money because if you have it, you will go to the doctor or buy the medicine you need.” Furthermore, she recalled the last time she was sick and needed to go to the doctor but did not, due to financial reasons. She stated, “during that time it hurts when I am breathing deep, and it feels like something is preventing me from breathing. My children wanted me to go to the doctor, but we do not have money.”

In agreement with Nanay Fe, Nanay Aca further added that despite the 20% discount on medicines for senior citizens, she was unable to afford to pay for any medicines or other out-of-pocket costs that would occur as a result of a health visit. She said, “If it is really not needed to go to the hospital, I really will not [go] because I do not have money for the bills [related to] the hospital and for the medicines. Yes, we have a discount, but still, I need to pay for it.”

I noted that the second subtheme, accessibility was related to the local barangay health centre, was present in two of the participants’ stories. The local BHCs, were, as previously discussed, the first points of access for primary care services for the public (WHO, 2011b).

However, participants shared that Apitong’s BHC had limited services that were specific for
older people. For example, when asked about regular healthcare programs and services at their local BHC, Nanay Corit responded:

Yes [Apitong’s BHC has a regular health program], but it is only every Wednesday, and it is vaccination for the babies and pregnant women. It is just for kids, for the immunization, and [prenatal] care for pregnant women, and blood pressure check-up.

There is none for seniors.

Similarly, Nanay Aca also noted that there were no regular senior health programs or services. However, she did recall a time when she received free vaccination services:

There are none [referring to regular health programs or services for older people], but I had this vaccination three to five years ago, and if ever someone was telling me to go there [referring to the BHC] for something, I am going there.”

I noted that the third subtheme, the accessibility of healthcare services was related to the communication of health information, was present in data related to two participants. Specifically, the participants' commented on how health information was communicated to them, and how such communication affected accessibility. For instance, Nanay Pipay shared that a regular source of health information for older people in the community was the OPO as she illustrated, “In our [OPO] meetings for the seniors, every last Friday of the month we are always talking about seniors’ health.” Other sources of health information the participants enumerated, included word-of-mouth, volunteers, or the radio. For example, Nanay Corit shared how she heard about a recent medical mission that occurred in Tacloban City:

Someone comes here to tell us that there is a medical mission. Just like last Saturday and Sunday, there was a medical mission at the Leyte Progressive high school, but I was not
able to go there. [name of volunteer] was the one informing us because she was a volunteer there. It was also broadcasted on the radio.

Through this quote, Nanay Corit also highlighted the next subtheme, which concerned the role of medical missions.

I found that the fourth subtheme, the use and challenges of medical missions to meet health concerns and needs, was described in discussions with three participants. For example, Nanay Fe explained in the following statement how some of her health needs were met through participating in such missions, “I am going to medical missions for check-ups. Like if I have a cough, I will be going there to be checked then they will give me free medicines for my cough and free vitamins.” At the same time, the participants provided examples of how accessing such medical missions could be challenging due to time-conflicts and other priorities (e.g., attending to their livelihood/employment or caring for grandchildren). For instance, Nanay Pipay, who had cataracts, explained that she was aware of a medical mission conducting cataract surgeries, but could not attend due to time conflict with work, “there was this time that this foundation had this medical mission for the cataract operations, but I was not able to attend that one because I had these duties [referring to her work as a barangay aide].” Nanay Corit shared how the way in which she learned about a medical mission was sometimes unreliable, as she stated "there are no permanent dates for these. It is just that sometimes I hear it on the radio, and they would say it is on the 9th at 9 am to 4 pm or something like that.” Another issue regarding the reliance on medical missions was highlighted by Nanay Corit, who stated, “I have high blood pressure problems. I know [this] because I have attended a medical mission and they gave me free maintenance medicine for it, but I did not maintain the medicine when it ran out. Now, I am just
taking the herbals.” Through this statement, Nanay Corit, also pointed to the next subtheme which was concerned with the use of herbal remedies.

I identified the fifth and final subtheme, participants relied on herbal remedies to address some of their health concerns and needs, in the experiences of all four participants. For example, Nanay Corit offered that she drank a particular herbal tea for her high blood pressure:

I am taking the patola [loofah vegetable]. Most of the seniors use it. I learned this from my elders. My mother taught me that the patola leaves - young patola leaves, and lemongrass could lower the blood pressure when boiled and drunk.

She further explained her reasoning for using herbal remedies:

It [referring to herbal remedies] is easy. For those medicines [referring to pharmaceutical drugs and medications], if you do not have money, then you cannot take them, but if you use the herbals you can just go to your neighbors and get some leaves then boil it, and you already have your medicine.

Nanay Aca also preferred using herbals, but acknowledged that she would take pharmaceutical drugs when necessary:

I prefer to heal myself just with the herbals . . . . I am not using the medicines that are brought to me by my children, though I am taking some herbals. And yes, I am only taking medicines [referring to pharmaceutical drugs and medications] when the pain is overtaking me.

Similarly, Nanay Fe identified a preference towards herbal remedies:

I am not on any maintenance medicines now, but once, I went to a doctor, he gave me these medicines [referring to Diclofenac, an anti-inflammatory drug used to treat signs or symptoms of arthritis] for my knees, but after 30 tablets, I stopped because someone
suggested the I should use the herbal medicines at Orion [a commercial health store that sold herbal remedies in Tacloban City], it is a cleansing tea. That is what I am using, and I can see the good effects of it, I have been using it for a year. Now I can walk far distances. It really helps me, even with my knees, but sometimes it hurts a lot, and that is why I had to take medicine [pharmaceuticals] but, someone told me that it damages the bones more, so that is why I stopped using it.

Finally, Nanay Pipay, also highlighted that she was taking herbal remedies, “Yes, I am also taking the herbals. I use lagundi leaf for my cough”. The image in Figure 14, taken by me before an individual interview, depicted Nanay Pipay showing me the supply of herbal remedies she had just received for free from the OPO.

![Nanay Pipay showing the supply of herbal remedies she was provided](image)

**Figure 14. Nanay Pipay Showing the Supply of Herbal Remedies she was Provided**

4.4.1.6 Theme: Religious/spiritual beliefs and practices played a role in shaping how participants perceived their current and future situations.
I noted that this theme, resonated in interviews with all four participants. For instance, both Nanay Corit and Nanay Fe highlighted how religion/spirituality influenced their perceptions of their current and future health profiles. Nanay Corit stated:

We do not know what will happen next because we are just borrowing this life of ours. I am just praying that I will always have a healthy body and a longer life so that I will still be able to work and have an income. That is just what I am asking

Similarly, Nanay Fe illustrated:

Sometimes, I just pray to God, and I ask him to keep my body healthy so that I can work or find a way to have money for myself. Especially since I am a widow and I have no one to depend on - I really need to work.

Additionally, Nanay Pipay and Nanay Aca shared that they turned to their faith and used prayer as a way to cope with challenging situations, both during times of disasters and in daily life. In explaining her use of prayer, Nanay Pipay stated: "It is during these times that I am encountering problems, that I just hold to him and pray, because He is the only one that can help me, during calamities, or if I am sick.” Similarly, Nanay Aca offered:

Right after the disaster [typhoon Haiyan] I was able to work for the cash-for-work [program], and that money was used to help me with re-building my livelihood, but I still needed also to feed my grandchildren during that time, and it was with God's grace I was able to cope with it.

4.4.1.7 Theme: Gendered roles, norms, and stereotypes regarding older women (both internalized by the participants and socially imposed on them) contributed to the participants’ experiences of ageism, limits to livelihood and employment opportunities, and adverse interactions from social relationships.
I noted that this theme was present in all four participants’ stories. For example, three of the participants explained how attending to daily activities (e.g., related to their livelihood/employment or household chores) brought about ageist remarks from others. Nanay Aca offered her thoughts about ageing and why she continued to stay active, despite ageist comments from others:

Right now, since I am older, what I am thinking of is that if I do not move it will make me weaker. That is why I am always exercising my body through gardening, and also [attending to] my sari-sari store. Someone even said that I am too old for those [referring to her gardening and operating her sari-sari store] and that I should be doing easier tasks, but I do not want just to sit down.

Nanay Pipay expressed how others felt that her job as a barangay aide was not age-appropriate:

Some people tell me that I should apply for other jobs and not as a barangay aide because it is hard work and it is so hot, but I just do not answer back, because I do not want any arguments. And also, I do not allow them to have any part in my decisions.

Nanay Corit opined that even though she did physically-demanding house chores out of necessity, she pointed out that she intentionally wanted to challenge the ageist attitudes and beliefs regarding her physical capacities:

When I am fetching water, most people would say that I cannot do that by myself because I am too old to do that, but I am proving them that I can do it. I can carry two pails of water, and I prove to them that I can do it because I just cannot wait here until my grandchildren are home because sometimes they come home late because they are attending school. I am the one who does all the household chores like washing dishes and
doing the laundry, so I need water to do it. That is why I am doing it on my own, and also proving them that I still can. I also can cut woods [for firewood].

In addition to experiences with ageism, all four of the informants provided examples of how they internalized gendered roles, beliefs, and attitudes regarding senior women and men. For instance, Nanay Aca described specific gendered roles and tasks around the house for senior women and men, as follows:

I can say that senior women can do more things inside the household like cooking and washing and also taking care of their grandchildren. But with senior men, they are more into hard things, I mean difficulties like, carpentry and such, until the time that they cannot do it anymore.

Nanay Fe also referred to the physical dimensions of gender differences between older women and men and its impact on livelihood and employment opportunities:

It is easy for senior men to look for a job if they are still strong. I mean guys were born to have the strength, unlike women. It is really difficult [for women] because women cannot do the same things that men usually do. Well, women can still do the laundry for other people, but for seniors like me, it is tiring to do that work. I guess it would be difficult for me to look for a job especially as a senior woman, even if it is just selling vegetables – it is hard work because I am already old.

Nanay Pipay added that most older women who were widowed in the community had limited opportunities for making their livelihoods, “most women widows here get their incomes from selling, maybe vegetables or whatever else, or sari-sari stores.”

Additionally, Nanay Corit and Nanay Pipay offered similar perspectives on gender differences in the work ethics of older men and women. Nanay Corit illustrated:
There is a difference between a male senior and a female senior. Most of the male seniors here when they reach that age sometimes they do not work. They really do not work, and they just stay at their house, but female seniors we still work, even if we are already seniors.

Ninay Pipay noted, “sometimes male seniors are lazy. With me, when I wake up, I am already thinking of where I can find money for our food for the whole day.”

An example of how gender norms, roles, beliefs, and attitudes regarding older women could contribute to adverse interactions in a social relationship was highlighted by Nanay Fe, who explained that having a boyfriend as an older women widow was unconventional. This rather unique situation resulted in her being subjected to negative interactions within some of her social relationships. For instance, she stated how she was the focus of gossip among some of her peers in the community:

Our society is not into open-minded things, so that is why most of the people are judgmental and also [because of] their insecurities. You know, seniors are checking on each other about my issue, but there are some who defend me against the others – telling them that I have my own unique story, telling them that it was not actually I who looked for someone to be with, but it was my boyfriend who found me.

Furthermore, as previously described, Nanay Fe’s situation also caused a strain in her relationship with one of her children, as she indicated:

Yes, people usually judge people like me. I actually have this son of mine who talk things about me regarding that issue, but what can I do? I cannot stop that thing to happen because I believe that if it is really meant to be, then it is. It is not my choice, it just happened.
Nanay Fe noted how initially she also felt uncomfortable with the idea of having a boyfriend:

He would always come back here, courting me, almost every week . . . . He asked if he could court me, and it sent me goosebumps because I did not expect it, most especially since my husband just passed away. I told him that I would agree with the relationship, but we have to wait for a year to respect my husband.

She also commented how her situation would be perceived differently if she were a widowed older man, “Yes, there is a difference. Society would accept my situation if it were done by a widow guy because it is normal for them.”

4.4.1.2 Individual driver and theme.

4.4.1.2.1 Theme: Maintaining independence and dignity were important to the participants and this process was related to employment and livelihood, living arrangements, and social relationship with children.

I found evidence from all four participants’ discussions to support this theme. For example, Nanay Corit expressed that her livelihood allowed her to not financially to depend on her children. She articulated:

I am always thinking about my livelihood because it is the way to have my income so that I will not depend on my children. I am not asking anything from them because I know that they have their own families to feed now. That is why I always want to have my own livelihood, and I do not like asking for money from my children.

Nanay Aca shared the same sentiment as she said, “I am really ashamed to ask for help from my children because they already have their own families to support, and children that attend school.” She further shared how she would instead consider taking out a small loan to build her livelihood. She explained:
You know we [referring to the Apitong OPO] have a livelihood committee that allows seniors to have loans for their livelihood, and if I needed it, I would take out a loan. It will not be a big amount, just an amount that I can pay back because it is hard for me to earn a lot of money especially because I am old now. I just want to have my own money and to be independent.

Additionally, Nanay Aca shared two reasons why she wanted to move out of the house she shared with her children and grandchildren and live alone. First, she wanted to understand the strengths of her relationship with her children and grandchildren, as she stated:

I bought a lumber [of wood] worth PHP 900 [approximately CAD 22.40] to build this house because I want to have my own house so that I can know who among my children and grandchildren really love me. I just want to have my own house, where I can live alone and see who among my children will be visiting me.

Second, she had different lifestyle perspectives than some of her children, as she stated, “And oh, another reason why I built my own house is because some of my children still do not know how to manage their own lives, and I do not want to scold them and hurt them.” The photo below was taken by Nanay Aca on her camera, and it captured her house being built right next to one of her daughter’s house.
Another example of how social relationships with the family and the need for independence and dignity motivated the participants to move into their own house, was highlighted by Nanay Corit, as she shared the reason why she enjoyed living in her house:

Now that I am in my own house no one can scold me. No one can scold me if I am just sitting, or just sleeping, or just watching TV. I can do whatever I want without anyone telling me to do this and that.

Furthermore, Nanay Corit explained that she moved into her own house to avoid personality conflicts with in-laws, as she stated:

I want my own house and not to live in my son and daughter’s houses because I do not know the attitudes of their wife or husband. If it is just my daughter or my son, it will be fine. And also, there is the part of marriage where there will be fighting and such, and I do not want to be a part of that.

Nanay Fe, who lived alone, shared a similar thought to that of Nanay Corit. She explained how her current living arrangement facilitated her independence and dignity, and as well was a way to avoid negative social interactions with her family as she explained:
I like it here, because it is peaceful, and I have space there [pointing to her garden] where I can grow plants. Yes, I am enjoying it here, especially now that I have a boyfriend. No one can tell me that he cannot come and visit and that it is wrong. They cannot do that because this is my house and I am not asking money from them for food or anything.

4.4.2 Factors and processes during the response and recovery phase that shape resilience

Exploring factors and processes specific to the response and recovery stage was not the original objective of my study. However, among the dataset, I found evidence to support themes that were relevant to this stage (namely, the earlier stages of recovery). In particular, I identified two themes, categorized as environmental drivers of resilience. The first concerned social relationships; the second focused on the role of NGOs and the government.

4.4.2.1 Theme: Kinship relationships were a significant source of social support that contributed significantly to building a temporary shelter and to the process of restoring the participants’ houses post-disaster.

I identified that this theme was shared in the stories offered by all four participants. Participants’ provided examples of the reciprocal nature of social support during this time, whereby the participants were both recipients and providers of support. The types of social support both received and provided during this time were tangible in nature. For example, Nanay Corit shared that having a temporary shelter in the aftermath of the disaster was a priority for her because they did not wish to continue to stay at the evacuation shelter, as she explicated:

What we did first was gather the roof and some parts of the walls that we could still use to build a small temporary house for us to sleep in. We could not stay at the school [referring to the evacuation centre] because they lacked water and there were so many
families there. It was so hard to cook [there and] that was why my son built this temporary shelter and one day after the typhoon we were able to sleep here again.

For Nanay Corit, her son was instrumental in helping her to build the temporary shelter.

Similarly, Nanay Aca, who lived with one of her children at the time of typhoon Haiyan, indicated the ways in which her family worked together to restore the house:

It was our family that helped each other. Two of my granddaughters would help to gather materials [wood, roof, etc.], and every day my son would work to rebuild this house.

Food was not a problem, because of the relief goods we received, so he was able to focus on building the house for us to have a place to stay.

Furthermore, she shared how she contributed to the family unit during this time:

Since my son was busy building a place to stay for us, I was the one running around and checking if there were NGOs or if the government were providing relief goods or any other help. Someone even told me that I should rest because I was too old to lift heavy things [referring to the relief goods given] and I told them that if I did not do this than my family would have nothing to eat.

Another example, offered by Nanay Fe, who lived alone, illustrated how her children assisted her in rebuilding her house:

During that time, I could not afford to hire someone to re-build this house because I only had limited money [and] that was why my children helped me. My sons are carpenters. We just re-used any of the old materials we were able to gather to build a house for me to stay in. It did not take long because my children were here to help. So, it just took them one week to build this [referring to her house].
4.4.2.2 Theme: The disaster assistance from various NGOs and the government played an integral role in restoring the houses and livelihoods of the participants.

I noted that this theme was evidenced in the experiences shared by all four participants. Most of the examples provided by the participants focused on the disaster assistance provided by the NGOs rather than the government. For example, in addition to re-using old materials, all four of the participants shared that some of the NGOs provided them with the necessary materials to rebuild and restore their houses. For instance, Nanay Aca shared, “a few days [after typhoon Haiyan], there were supports from the NGOs. Our house was still broken, and they gave us materials to help rebuild it.” A similar example was offered by Nanay Corit, “Then the [name of NGO] came to see us and gave us the materials, like wood and roofing sheets, that we could use to build back our house.”

In addition to materials, some of the NGOs provided disaster assistance in the form of financial aid. For example, Nanay Fe shared how the financial assistance given to her by an NGO assisted her in restoring her house and livelihood:

What has helped us to rebuild is the [name of NGO]. They were the first NGO who really helped us after the typhoon [Haiyan]. They gave us money, and that was what I used for capital to rebuild my sari-sari store and to build our house.

Likewise, Nanay Pipay explained how she also used the financial assistance from an NGO to purchase more materials to rebuild her house, “This time, it did not take long to rebuild the house because right after the typhoon [Haiyan], [the name of the NGO] gave us the financial assistance and we were able to buy materials, wood, and nails.”
Another means of providing financial aid was through a cash-for-work program, offered by one NGO. Some of the participants in the study participated in the program. For instance, Nanay Corit explained how participating in the program helped her during this time:

We were able to join that [referring to the cash-for-work program] because we heard about it from the people here in Apitong who were talking about it. I asked them how much was the salary and they answered PHP 500 [approximately CAD 12.40] a day. That was why my granddaughter and I went there and worked. We cleared the roads, and then we were assigned at the Magallanes [another barangay] to clear that part also. It helped us because it gave us a salary. My granddaughter's salary was the one that we used to buy fish or vegetables, coffee, and other things that we needed for every day. While for my salary, it was saved and used to restore my livelihood. At that time my son could not participate in the program because he had to help his cousin rebuild their house and he worked for free for that.

While the participants shared examples of how the NGOs were integral to restoring their houses and livelihoods, they also highlighted challenges associated with the disaster assistance. For instance, Nanay Aca revealed that she initially had some trouble with availing of the aid:

I was almost not given those materials by the NGO because my papers were lost. Good thing that one of the barangay councilors and the barangay captain had stood up and supported me. He told them that I was really a resident here and I grew up here. I was really almost not given the support. If those materials were not given to me, it would have been really hard for us to build our house at that time.

Nanay Corit also explained that she was unable to receive disaster assistance under one particular program from an NGO:
For the [name of NGO] they had a program for helping people to rebuild their houses, but you needed to have a land title. I was not given that support because I did not have a title for this land.

This problem was also reiterated by three participants. For instance, Nanay Fe disclosed her frustration with the requirement to have a land title as a condition of receiving aid:

[Name of NGO] did not help us during this time. They required a title of the land before they would help you to build a new house. That is why I was so mad during that time. Nanay Pipay echoed this sentiment, “same with us [that NGO] did not help us to rebuild.”

However, Nanay Aca noted that while she was unable to access the disaster assistance from that particular NGO, the local barangay officials helped her to find other NGOs that could assist her, as she illustrated:

Yes, we could not avail that assistance either, because we did not have a land title, but the barangay officials really helped us to find NGOs that could help us. Also, we were always notified by the officials, if there were relief goods that would be given out, like a half sack rice or sometimes 12 kilos of rice with other canned goods and biscuits.

Another problem highlighted by the participants regarding the disaster assistance provided by the NGOs was the alignment of such assistance with their actual needs. For example, Nanay Corit commented, “We will ask for help, for any help, because we do not really have a choice for they [the NGOs] can only help on what they can give, but sometimes it is not really the exact thing that we need.” Nanay Aca also opined that while any help was good the provision of financial assistance was the best source of help, as it contributed to the individual’s autonomy in the rebuilding process:
All of it is really important. If it were material, it would be used for the house, but for me I would need to hire men that can do the work for me, and that is why the most important is the cash, because you can decide on what can you do with this or that, or what you can do first.

Additionally, Nanay Fe related a story that highlighted how the type of disaster assistance provided during typhoon Haiyan was not easily aligned with the actual needs or capacities of the recipient. She explained that an NGO provided one of her peers a sari-sari store as a livelihood source, however, this individual never had a sari-sari store before and as she did not have the knowledge or skills to maintain it, she subsequently went bankrupt:

She was also given a sari-sari store, but she did not maintain it. It went bankrupt. She does not know how to count, so she could not give correct change. Also, she was marking down her prices too low, and that was why she had to close it down. That is why it is important for seniors to know how to read and write really and to also have knowledge in managing their livelihoods.

Another challenge that was highlighted by all the participants was that the disaster assistance provided by the NGOs and government were limited to typhoon Haiyan. For instance, Nanay Aca shared that the NGOs were absent during typhoon Ruby and that disaster assistance was left to the government who only provided relief goods. While typhoon Ruby was not as intense as typhoon Haiyan, it was still categorized as a super typhoon, which affected 944,249 families, led to 18 causalities and 916 injuries, and damaged 290,670 houses (National Disaster Risk Reduction and Management Council, 2014). Nanay Aca explained: “for typhoon Ruby, we were given reliefs goods again, by the government, like biscuits and soaps, but this time there was no cash given to us or materials by the NGOs.”
Another example, depicted by Nanay Corit related to her experience with subsequent typhoons following typhoon Haiyan:

There were no NGOs that helped us after [typhoon] Ruby, someone just came here and listed our family, but after that, no one returned. After [typhoon] Yolanda there were [typhoon] Ruby (December 1st, 2014) and then [typhoon] Senyang (December 29th, 2014) and the other ones after. The NGOs and the government did not give any financial assistance for the rebuilding of our houses, it was just after typhoon Haiyan.

Government disaster assistance, as indicated by the participants of my study, was limited to providing relief goods, such as canned foods and sacks of rice. However, one participant, Nanay Corit, was a recipient of the Emergency Shelter Assistance (ESA) program operated by the government, as she demonstrated:

We also had received money from ESA to rebuild our house [after typhoon Haiyan]. We were given money based on the damages to our house which [in our case] was classified as totally damaged. We were given this amount without any requirements, not like the [name of NGO]’s program.

At the same time, Nanay Corit identified that she had a problem accessing resources from ESA, “the shelter assistance from the government was given a year after typhoon Haiyan. This was after typhoon Ruby and Senyang too. Only then we received the money.”

4.4.3 Findings related to the peer interviews.

As I mentioned in Chapter three, the participants were paired up to conduct the peer interviews. They were advised to interview 1-2 older women who were widowed, head of household, and living in the same disaster-affected community. The multiple indicators for poverty were not applied to the recruitment of peer interviewees for sake of simplifying the
selection process. Three peer interviews were conducted. Nanay Pipay and Nanay Corit, who were a team, conducted two peer interviews, while Nanay Aca and Nanay Fe, together, facilitated one peer interview. The three interviewees were aged 64, 68, and 73, respectively. Two of the interviewees lived alone (but close to their adult children, which were similar to Nanay Aca and Nanay Fe’s living arrangements), while the other woman lived with one of her sons. Like all four of the participants in my study, all three of the interviewees were engaged in the informal sector, and they either sold vegetables or operated a sari-sari store.

From the data regarding the peer interviews I found evidence that corroborated two themes previously identified: 1) kinship relationships were a primary source of social support during the mitigation phase and 2) disaster assistance from various NGOs and the government played an integral role in the restoration of houses and livelihoods. Regarding the first theme, I found examples of how the interviewees were both recipients and providers of social support. For instance, Nanay Pipay and Nanay Corit shared that one of their interviewees’ main problem was not having a permanent livelihood and thus relied on one of her daughters to give her money for food and also to purchase maintenance medicines:

With [name of interviewee] she said her problem was her livelihood, she does not have permanent livelihood. She sells vegetables in the morning and in the afternoon, but it is not enough. She mentioned about her daughter, who has a job, that goes to her house and gives her food or sometimes money for the medicines, but if her daughter does not give her money she will have no money to buy the medicines.

In contrast, Nanay Aca and Nanay Fe, expressed how their interviewee, who operated a sari-sari store, was a provider of social support, “She is also the one who is feeding her brother-in-law, who is also a senior.”
Concerning the second theme, participants of my study shared how their interviewees expressed that it was the NGOs that really helped them during the response and (early) recovery stage post-typhoon Haiyan through different forms of disaster assistance. For example, Nanay Pipay and Nanay Corit, shared that their interviewee said, “the one that helped her was the [name of NGO] [as] they gave her the capital for her sari-sari store.” Similarly, Nanay Aca and Nanay Fe echoed that their interviewee also was provided disaster assistance from the NGOs and was a recipient of the ESA program from the government, as they shared “she was helped after the disaster by the [name of NGOs] and also by ESA and the distribution of the relief goods.”

Regarding similarities and differences between their experiences and that of their interviewee’s, two of the participants shared their opinions. Nanay Fe said “it is also the same problems, just like the lack of food, shelter, and also the livelihood.” Albeit, Nanay Corit highlighted a difference in terms of health between her and one of their interviewees, by sharing “the persons that helped us and the NGOs are the same, but we have different problems. Like we said, her main problem is the money for the medicines, but for us we just use herbals.”

4.4.4 Findings related to the research process.

From the data collected, I identified three themes regarding the research process: 1) learning new technology and skills; 2) communication challenges; and 3) perspectives on dissemination.

4.4.4.1 Theme: Learning new technology and skills.

I noted that this theme was present in the ideas shared by all four participants. As mentioned in Chapter three, the participants engaged in four workshop training session, three of which were focused on the PV/VV process and the final session was on conducting peer-interviews. As part of the PV/VV training, the participants were taught basic camera use and
photo/video taking skills. It was the first time for the participants to use a digital camera. Three participants found this task to be difficult, as Nanay Aca shared:

For me, it took time to learn that. Remember that I always asked you where do I press or how do I open this? Maybe because I am old, and it was my first time. It was like I was a grade one student again.

Ninay Pipay also expressed that although it was difficult to learn how to use the camera, she appreciated the learning opportunity:

I am thankful that I was a part of the four that were selected. For the camera, it was difficult to learn because I really did not know how to use it. I am thankful that I have learned now.

Also, Nanay Corit shared how she enjoyed practicing her new camera skills, as she took photos of her family for her own personal reasons. These personal photos were developed and given to her afterward. She stated, "I was thankful that I learned how to use a camera, I was able to take a picture of my grandchildren." For Nanay Fe, unlike the other three participants, learning this new technology was not difficult as she expressed “it was not hard for me to learn how to use the camera … and what I liked the most was learning how to take a picture.”

In addition to learning new technology, the participants shared how they enjoyed the peer-interview experience. For instance, Nanay Corit stated, “we were really happy that we were able to give you a report [referring to the notes they wrote].” Her peer-interview partner, Nanay Pipay, echoed this idea adding, “yes, I was happy that I experienced doing an interview, especially that I got to do the writing.” Below were illustrations of the practice photos participants had taken during the workshop training on basic camera use. The first photo, depicted in Figure 16, was taken by Nanay Pipay and showed the translator, Alona, helping
Nanay Aca with the camera, while Nanay Corit looked at the camera. The second photo, Figure 17, which was taken by Nanay Aca, captured Nanay Corit becoming familiar with her camera. Figure 18, was taken by Nanay Pipay, and showed me helping Nanay Aca with the camera and Nanay Corit, again, was familiarizing herself with the camera.

Figure 16. The Translator, Alona, Teaching the Participants how to use the Camera

Figure 17. Nanay Corit Learning how to use the Camera
I found that this theme was evidenced in the responses shared by three participants. One of the communication challenges was related to recruitment, whereby the participants expressed how they initially were not sure why they were asked to attend the orientation session, while others were not. In referring to me, Nanay Aca said, “I was surprised because she was from another country, and I did not know why we were just four that were chosen . . .” She further added that this might have caused jealousy among other older people in the community, as she stated, “and maybe the other seniors would have bad comments about it.” Similarly, Nanay Fe shared, “with me; someone said that we were just chosen because we were close to the [OPO] president, and at that time I did not know the reason for that. I even told them that they could have my position if they wanted. And I told them that we did not decide on that." Also, Nanay Corit expressed her surprise as well on being invited to the orientation and to participate in the study, as she stated “I was also shocked. They just said that the four of us were called and they also did not know why.” To address the negative perceptions in the community, I asked the OPO president if I could attend their next monthly meeting to speak briefly about my research study. In that meeting I introduced myself and my study to the OPO members and explained that I only
needed four participants and that I had specific criteria that was met by Nanay Aca, Nanay Pipay, Nanay Corit, and Nanay Fe. After my brief presentation I invited the participants to ask questions, and interestingly the focus of the questions was not on my study nor on the rationale for selecting the four participants, but were centered on my personal background (e.g., how old I was, did I have a partner, and was my what ethnicity).

Another challenge regarding communication was related to the language barrier and the necessity to use a translator. For instance, Nanay Corit offered:

I am enjoying our talks [individual interview] and also when we see each other during the [focus group] meetings. The difficult part is when you are talking in English; sometimes I cannot understand, [and] I still need to wait for Alona to translate.

In a similar vein, Nanay Fe outlined the challenge she experienced in communicating with me through the translator:

It is not hard for me in learning how to use the camera, but the difficult part is sometimes I cannot answer directly on your questions, and it takes time to process. The difficult part is on expressing myself and explaining further about the ideas I talked about, but I like the research.

4.4.4.3 Theme: Perspectives on dissemination.

I found this theme present in two of the participants’ comments. The participants expressed how they felt about sharing the research video that we produced to the community. For example, Nanay Fe expressed that the video was a way to show others the challenges and strengths that older people experience, as she stated:

I also like to add that through this research she [the researcher] is making, we can show the things that we have done, and it is not just left hidden. If she [the researcher] has not
done this, they will not know that we can do things also. That video showing on the 5th will show what seniors can do and not do, and also help give advice or alternatives for seniors here.

Similarly, Nanay Aca noted that she appreciated how the video highlighted the strengths and independence of older people, as she said:

Each of us has explained the things that we are able to do or how we can help other people and co-senior citizens [and] how we have accomplished to build back after the disaster with our own determination to stand, without depending on other people.

4.5 Chapter Summary

In this chapter, I presented a detailed description of the context and the case, which Merriam (1998) suggested were important elements in the reporting of case study research. Then I delineated the findings and supporting evidence related to my research questions (e.g., drivers of resilience during the mitigation phase) and also to three additional topics which included: 1) drivers of resilience during the response and recovery phase, 2) the peer interviews, and 3) the research process. In the next chapter, I discuss how the findings relate to my research questions and the literature; recommendations for future research; implications of my research; and limitations of my study.
Chapter 5: Discussion

5.1 Chapter Summary

The purpose of this chapter is to interpret and discuss the findings presented in Chapter four. I start this chapter by discussing how the study findings help to answer my research questions. Then, I compare and contrast the knowledge claims I make, with the literature specific to older people and disasters, and to resilience and disasters more broadly. After I outline how my knowledge claims reinforce, diverge, or build on previous studies, I suggest recommendations for future research. Then, I provide the implications of my research to the local context and social work profession. Lastly, I identify limitations in my study, and provide concluding remarks.

5.2 The Relevance of Study Findings to Addressing the Research Questions

In my study the older women, who are living in poverty, widowed, head of household, and residing in a disaster-affected community in the Philippines, constructed that their capacity to build back better after a disaster were related to seven environmental factors and processes (employment/livelihood(s), land tenure, housing, kinship relationships, healthcare disparities, spirituality/religiosity, gendered roles, norms, and stereotypes regarding older women) and an individual one (value towards independence and dignity). Regarding how these factors and processes influence and shape resilience within the context of disasters, I assert nine knowledge claims. Importantly, these knowledge claims are aligned with and support the theoretical framework of resilience adopted in this study that espouse resilience as: i) a set of intersecting factors and processes that occur at the individual and environmental level; ii) a fluid and dynamic construct that is malleable to personal, circumstantial, and cultural variation (Ungar, 2013); and iii) a process that is also aligned with addressing longer term sustainable development challenges/issues (Drolet et al., 2015; Mannakkara & Wilkson, 2014).
First, employment/livelihood(s) can bolster the older women’s capacity to build back better after a disaster if such employment/livelihood(s) provide, for example, an adequate and regular income and opportunities to increase earning potential. Employment and livelihood(s) are the main source and/or sole source of income for the women’s households. The participants were neither receiving social pension, nor financial transfers from their kin, that were regular and sufficient to meet their basic daily needs. To understand how employment/livelihood(s) can influence and shape the older women’s resilience within the context of disasters, it is important to consider certain features of their work, such as the salary amount or their earning potential, and the regularity in which salary is paid or income is received. For instance, if the income earned by the women is only sufficient to meet daily basic needs, then their capacity to invest in mitigation efforts or to set aside income to meet their needs in the event of a disaster are limited. Therefore, while having employment/livelihood(s) may prevent some of the older women from falling deeper into poverty during non-disaster times, it does little to facilitate their capacity to reduce the impacts of future disasters. Furthermore, when a disaster occurs, the older women in this situation have enhanced vulnerability as they have little to no savings to fall back on. Also, they may fall deeper into poverty and be worse off than their pre-disaster situation, as employment/livelihood(s) can be interrupted by disasters and damages to houses can occur.

The second knowledge claim from my study is that limited access to or weak land tenure security can hinder the older women’s resilience in the pre-disaster context by subverting mitigation efforts, and in the post-disaster context, when disaster assistance is attached to land titles. None of the women in the study have formal/legal land titles, for which their houses are built on, and this can lead to adverse implications in a pre and post-disaster context. For women in the
study this meant having an ongoing fear of relocation or indeed relocation numerous times, most often to a more hazard-prone area of Apitong (the mountainside).

During the pre-disaster context, the older women's capacity to mitigate the impacts of disasters can be challenged by the ever-present threat of (or actual) eviction. For instance, the older women determined that even if they had financial resources to improve their houses’ physical structure, efforts/investments directed to this end could be wasted with the frequent need to relocate. Also, as all of the older women in the study were engaged in home-based livelihood(s) as their main source of income, both the threat of and actual eviction could adversely impact their livelihood(s). With respect to the post-disaster context, such as the aftermath of typhoon Haiyan, study participants were unable to avail disaster assistance from one specific NGO because they did not hold a legal land title, and this then negatively impacted their capacity to build back better.

The third knowledge claim arising from my study concerns housing. The older women in the study have limited access to financial and material resources which, in turn, contributes to living in houses that are made of provisional construction materials (e.g., the walls and roofs are made from materials such as plywood, tarp, and tin), that are unable to withstand the intense winds or storm surges of a typhoon (Morin, Ahmad, & Warnitchai, 2016). This then renders them vulnerable to greater disaster exposure. Furthermore, their limited resources may entail that, in the post-disaster context, the older women’s houses are rebuilt to the same conditions as pre-disaster, whereby the physical structures are no stronger than before and continue to remain vulnerable to future disasters. Importantly, while the women in the study expressed interest in investing in more resilient housing infrastructure, their limited income thwarted their ability to
make any significant improvements to mitigate the damages to their houses in the face of future disasters.

The fourth knowledge claim relates to social support and specifically kinship relationships. The older women’s kinship relationships are their most valued social relationships and the primary source of social support throughout the disaster management cycle that, for the most part, strengthens resilience. The reciprocal nature of social support was evident in my study, whereby the older women frequently provided support to their kin in both pre and post-disaster contexts. The reciprocity of kinship relationships helped to bolster resilience in both the older women and their kin. This mutual social support was especially crucial in the post-disaster context and, in particular, during less high-profile disasters, whereby the assistance from INGOs, NGOs, and the government was less pronounced. An important caveat to consider, however, is the potential adverse implications of these relationships that may hinder resilience. As an example, the impact of strained kinship relationships and the ensuing loss of social support, during non-disaster times, can be expressed within a disaster context that hinders the resilience of both the older person and their kin.

With respect to knowledge claim five, the focus is on healthcare disparities. “Healthcare disparity typically refers to differences between groups in health coverage, access to care and quality of care” (Edlin & Golanty, 2016, p. 437). The older women in my study experienced various barriers to accessing healthcare related to their socio-economic status and age. These barriers can contribute to persistent unmet healthcare needs or delayed care and lead to poorer health and functional statuses, which ultimately hinder the women’s resilience within the context of disasters. Also, pre-existing health conditions/problems can be exacerbated within the stressful environments of disasters.
Knowledge claim six is that the older women’s spiritual/religious faith, beliefs, and practices can contribute to positive mental well-being and adaption during non-disaster and disaster times; and thus, bolstering their resilience during disasters. The women in the study provided examples of how spiritual/religious faith, beliefs, and practices were used as a resource in both the pre and post-disaster context. Such faith, beliefs, and practices were activated in a way to foster positive mental well-being and positive adaptation through times of adversity and, to foster hope and perseverance, both of which can contribute to positive mental well-being and adaption within the context of disasters.

Regarding knowledge claim seven, I assert that the older women are constrained, in various ways, by socially constructed gendered roles, norms, and stereotypes, that can hinder their resilience within the context of disasters. The older women in the study provided examples of how their roles and tasks challenged the stereotype of the ‘weak older women’, and hence they were subjected to sexist and ageist remarks from community members. Within a disaster context, such stereotypes about frailty and weakness can be particularly harmful, whereby older women are excluded from potential opportunities to better mitigate, prepare for, respond to, and recover from the impacts of disaster. Also, the gendered norms and stereotypes that dictate that older widowed women should remain single can hinder their capacity to expand (or can strain) their social support networks, a critical driver that bolsters resilience within the context of disasters. The participants’ employment/livelihood(s) are also limited by the gendered roles, norms, and stereotypes of older women, as the socially accepted categories of older women’s work frequently provide less than adequate income, security, and stability, which are necessary to bolster resilience within the context of disasters. Importantly, these gendered roles, norms, and stereotypes about older women, are both internalized by the women themselves and also imposed on them by others.
Through knowledge claim eight, I assert that resilience for the older women within the context of disasters, includes building back better pathways for preserving and fostering independence and dignity. The participants in the study both valued and prioritized their independence and dignity, particularly as head of the household. Thus, within a disaster context, building back better also includes a focus on building back better opportunities for them to maintain and foster their independence and dignity, including the ability to make their own income through employment/livelihood(s), to continue to live alone or as the head of the household, and foster kinship relationships in which they are not only recipients of social support but also providers of it.

Lastly, knowledge claim nine relates to the main finding in my study, that is the pre-eminence of employment/livelihood(s) in influencing and shaping the older women’s resilience within the context of disasters. There are a couple of reasons to support this essential finding. First, the topic of employment/livelihood(s) is the only factor and process that intertwined with all other critical drivers of resilience. For example, the older women's employment/livelihood(s) were deeply connected to housing and land tenure. All of the women in the study were engaged in the informal work sector and home-based livelihoods, which meant that for the older women, their livelihood(s) could not be separated from their houses nor the land on which they are built. Consequently, within a disaster context, adverse impacts on their house and the possibility of relocation/eviction also has implications for their livelihood(s). Additionally, even in the discussions that highlighted the role of religiosity/spirituality in shaping and influencing resilience, the topic of employment/livelihood(s) was raised. For example, some of the women noted how their prayer was directed at maintaining good health so that they could continue to work and make an income. The second reason why I suggested that the older women’s
employment/livelihood(s) play a central role in shaping and influencing resilience within the context of disasters, was the way in which all their expressed future expectations and aspirations were related to their employment/livelihood(s). Maintaining their livelihood(s) was advanced by the older women as a way for them to stay physically active and to remain independent.

To summarize, I made nine knowledge claims concerning the older women’s resilience within the context of disasters, based on my interpretation and discussion of the study findings.

1. Employment/livelihood(s) can bolster the older women’s capacity to build back better after a disaster if such employment/livelihood(s) provide, for example, an adequate and regular income and opportunities to increase earning potential.

2. Limited access to or weak land tenure security can hinder the older women’s resilience in the pre-disaster context by subverting mitigation efforts, and in the post-disaster context, when disaster assistance is attached to land titles.

3. Limited access to resources (financial and material) can contribute to the older women living in houses that are made of provisional construction materials, which render them vulnerable to greater disaster exposure and perpetuate the cycle of rebuilding the same housing vulnerabilities post-disaster.

4. The older women’s kinship relationships are their most valued social relationships and also the primary source of social support throughout the disaster management cycle that, for the most part, strengthened resilience.

5. During non-disaster times, the older women’s experiences of healthcare disparities can contribute to the development or worsening of poor health and well-being, which in turn can hinder their resilience within a disaster context.
6. The older women’s spiritual/religious faith, beliefs, and practices can contribute to positive mental well-being and adaption during non-disaster and disaster times; Thus, bolstering resilience within the context of disasters.

7. The participants are constrained, in various ways, by gendered roles, norms, and stereotypes about older women (both internalized and imposed on them by others), that can hinder their resilience within the context of disasters.

8. Building back better after a disaster also entails building back better pathways for preserving and fostering the older women’s independence and dignity.

9. Among the eight factors and processes identified, employment/livelihood(s) play a preeminent role in influencing and shaping the older women’s resilience within the context of disasters.

Next, I discuss how the knowledge claims I made relate to the literature specific to older people and disasters, and to resilience and disasters more broadly. I also point out recommendations for future research.

5.3 Study Findings in Relationship to the Literature

5.3.1 Knowledge claims one and nine regarding employment/livelihood(s).

Concerning the literature on older people and disasters, the knowledge claims in my study about employment/livelihood(s) are relatively novel. Among the 33 studies examined in the scoping literature review described in Chapter two, only in two studies did researchers investigate the relationships between employment/livelihood(s) and resilience for older persons (Ardalan et al., 2010; Cherry et al., 2015). However, the salient features of employment/livelihood(s) such as salary, earning potential, and regularity in which salary or income is received, that can shape and influence resilience were not elucidated. The centrality of
employment/livelihood(s) in my study was likely due, in part, to the context and population group. Philippines is a lower-middle income country with minimal social protection provisions for older people. Therefore, many older people continue to work well into old age because, for example, as they have typically worked in the informal sector for their working lives, they have no access to pension. Thus, they need to remain economically active to both meet their needs and to contribute to family income, including supporting family members who are dependent (e.g., sick relatives or grandchildren) (HelpAge, 2010).

In contrast, the role of employment/livelihood(s) was more frequently examined within the broader literature on disasters and resilience (e.g., not specific to older persons). For example, several researchers argued that the promotion of decent work and sustainable livelihood(s) is a viable approach to both bolster resilience within the context of disaster and to reduce poverty (e.g., Drolet et al., 2015; Gaillard, Maceda, Stasiak, LeBerre, & Espaldon, 2009; Le De et al., 2018; Sanderson, 2000). Equitable wages/salary, a focus on well-being and capabilities, diversification, adaptability, decent work hours, health insurance, sick pay, and natural resource base sustainability, amongst others, are features of sustainable livelihood(s) (Gaillard et al., 2009; Le De et al., 2018; Sanderson, 2000). Also, the ILO (2016) stated that decent work is the “bridge between humanitarian assistance and development solutions” and advocated that during non-disaster times, there is a need to create and strengthen decent work (p. 23). The ILO (2016) further contended that “decent work can be a critical factor in breaking cycles of fragility and can lay the foundations for constructions of stable communities affected by disaster and conflict” (p. 23). My study findings concerning employment/livelihood(s) support this idea that developing and strengthening sustainable livelihood(s) and decent work should be a focal point within the DRR field. This type of work not only contributes to resilience
building but also to longer-term development goals. Access to sustainable livelihood(s) and decent work, is particularly important to the older women in my study to interrupt their chronic cycle of vulnerability and risks.

Through comparing these knowledge claims with the literature, specific recommendations for future research can be proposed. There is a need for more research focused on resilience within the context of disasters with the “forgotten workforce,” that is “older people in low and middle income countries” who continue to work well into old age (HelpAge, 2010, p. 5). Specifically, research is needed regarding older people who “have lived a life of poverty, working for low pay in informal sector jobs (farming, fishing, street vending or domestic work) with no entitlements to pensions or benefits”, and live in contexts with limited or no social welfare protections measures for older persons (e.g., universal pension) (p. 7). Specifically, there needs to be a more fullsome understanding about the needs, capacities, contributions, and potential of this workforce and how these factors intersect with resilience. For example, what are the employment/livelihood options available for older people in specific contexts and how does this impact their resilience within the context of disasters? What are the barriers faced by older people to access decent work and sustainable livelihoods, and the implications to resilience? In what ways does this workforce contribute to the household, community, and the economy, and what are the implications to resilience at the individual, household, community, and wider economic level? What are examples of employment/livelihood options that are both age-friendly and sustainable?

5.3.2 Knowledge claim two regarding land tenure security.

Land tenure security was not examined in any of the studies included in the scoping review specific to older people’s resilience within the context of disasters. Land tenure security,
defined as "the terms and condition on which land is held, used and transacted, within a particular system of rights and institutions that govern access to and use of land" (Reale & Handmer, 2011, p. 160), is relevant in the context of my study because the older women are informal dwellers. Informal dwellers, defined as people who are occupants of houses that were constructed on land that they have no legal claim to, who have occupied the land illegally, or people who reside on "unplanned settlements and areas where housing is not compliant with current planning and building regulations" (Organisation for Economic Cooperation and Development [OECD], 2001, para. 1). Informal dwellers and settlements are a common phenomenon in developing countries (Morin et al., 2016). The absence of consideration of this factor in the available body of literature may be related to the majority of the studies specific to older populations were conducted in high-income and developed countries.

In contrast, within the wider literature on disaster and resilience, land tenure was an issue that was analysed and this knowledge claim reinforces ideas made by some scholars. For instance, researchers support the association between land tenure insecurity and a reduced capacity to mitigate the impacts of disasters (e.g., Doberstein, 2013; Dominelli, 2014a; Morin et al., 2016; Oxfam, 2014; Orcherton, Mitchell, & McEvoy, 2017; Reale & Handmer, 2011; Rumberg & Shirgaokar, 2016). Specifically, people who have no tenure are more likely to face various challenges, including: i) living in hazard-prone and unsafe areas (e.g., "deforested or degraded land, flood plains, landfill sites, steep or unstable slopes" [Doberstein, 2013, p. 29]); ii) living in “houses that are constructed from makeshift/temporary materials that are unable to withstand the forces from waves or flood inundation and typhoon winds” (Morin et al., 2016, p. 694); and iii) less of a likelihood to invest in land or housing improvement that can reduce the impacts of disasters (Reale & Handmer, 2011).
Furthermore, there is literature that augment this knowledge claim that land tenure insecurity is related to challenges during the response and recovery phases of a disaster (e.g., Alston, 2013; Dominelli, 2013; Arnall, Thomas, Twyman, & Liverman, 2013; Chen, Tan, & Luo, 2017; Garibay et al., 2010; Keraminiyage & Piyatadsananon, 2013; Bang & Few, 2012). For instance, people who have no or weak land tenure security are more likely to encounter in the post-disaster context: i) difficulties in reclaiming their original occupied property, especially if all the physical assets were destroyed by a disaster (Garibay et al., 2010); ii) relocation by the government to settlement sites that were not ideal and potentially in sites that were worse than their pre-disaster context (e.g., far distance away from access to employment/livelihood(s), lack of or limited basic infrastructure, limited access to health facilities, and overcrowded) (Bang & Few, 2012); iii) loss of employment/livelihood(s), especially if such work were home-based and they were forced to relocate (Chen et al., 2017); and iv) displacement from their community, which leads to tangible losses (e.g., shelter and basic infrastructure) and intangible losses (e.g., belonging, identity, social capital, and spiritual connections to the land) (Alston, 2013).

In reviewing this knowledge claim against the backdrop of the body of literature, there are several recommendations for future research that arise. First, is the need to focus on research with older persons who live in informal settlements and have weak or no access to land tenure security. In particular, it is important to engage older persons in research who have settled on land that is prone to disasters (e.g., droughts, typhoons, and landslides) to better understand, for example, how land tenure insecurity directly impacts their capacity to mitigate, prepare for, respond to, and recover from disasters. Furthermore, another essential focal point for research is the relocation process and experience of older people who have been resettled due to disasters. As this study identifies, older people, particularly women, without land tenure security are
frequently subjected to relocation. Importantly, it is worth investigating how older people in various contexts conceptualize the idea of ageing in place (e.g., “what is [their] ideal place to grow older?” [Wiles, Leibing, Guberman, Reeve, & Allen, 2011, p. 359]) and how relocation can impact this idea. “Ageing in place’ is a term that is widely use in aging policy and research,” (Wiles et al., 2011, p. 359) but how the idea of ageing in place intersects with the challenges brought about by the environmental crises is largely neglected in the literature; this is a starting point for future research.

5.3.3 Knowledge claim three regarding housing.

Overall there were few studies (6 out of 33 studies) within the literature regarding older people and disasters, in which researchers investigated the connections between housing and resilience. The focus of most of the studies were more broadly on the concept of built assets, rather than exclusively on housing per se. Albeit, the study conducted by Kaluarchichi’s (2013) was related to this knowledge claim as he explored what motivated older people to make improvements in their houses to be more disaster-resilient, noting the failure to invest in mitigation efforts was related to the “lack of personalisation of the risk and avoidance behavior” and that older age increased the likelihood to invest in mitigation practices (p. 297). Albeit, in my study the older women’s limited access to financial and material resources was the primary driver in constraining their capacity to make home improvements, thus diverging from Kaluarchichi’s (2013) findings.

In contrast, within the broader literature on disasters and resilience, topics related to housing and specifically of post-disaster housing reconstruction were more widely deliberated. For instance, the knowledge claim regarding housing in my study aligned with two ideas developed by scholars in the literature. First, housing within a disaster context was more than a
technical challenge (e.g., building a dwelling unit); it encompassed multiple and intersecting
economic, social, cultural, political, and environmental variables (Ahmed & Charlesworth, 2014;
Davis, Krimgold, & Thompson, 2015). Karunasena and Rameezdeen (2010) and other scholars
(e.g., Davidson, Johnson, Lizarradle, Dikmen, & Sliwinski, 2007; Davis et al., 2015; Roosli &
O’Keefe, 2013; Vahanvati & Mulligan, 2017) pointed to the need for stakeholders (e.g.,
humanitarian aid workers, organizations, and government) involved in post-disaster housing
reconstruction to examine housing through a long-term development perspective rather than a
relief lens, to “avoid rebuilding structures which reflect, sustain and reproduce patterns of
inequality and exploitation” (Karunasena & Rameezdeen, 2010, p. 175). Further, Davis and
colleagues (2015) argued that “until it is fully and widely understood that shelter is a process
rather than a product, many housing programmes, however well-meaning, will fall short of
expectations – in the developing countries” (p. 17). In my study, poor housing was also
intimately connected with wider patterns of inequalities. For the participants, building back
better housing was less about “the house as a product” (Davis et al., 2015, p. 17) and more
importantly was concerned with addressing existing inequalities.

Second, this knowledge claim reinforces the proposition within the literature that housing
construction within a disaster context is constrained by land tenure insecurity. The Global Shelter
Cluster (GSC, 2017) stated that “access to land still remains a substantial concern and
impediment to access adequate shelter” (p. 2). The GSC (n.d.) “is an inter-agency standing
committee coordination mechanism that supports people affected by natural disasters and
internally displaced people affected by conflict with the means to live in safe, dignified and
appropriate shelter” (para. 1). The GSC is co-chaired by the International Federation of the Red
Cross and Red Crescent Societies (IFRC) and the United Nations High Commissioner for
Refugees (UNHCR), with the former as “the convener of the Shelter Clusters in natural disasters” while the latter in conflict situations (para. 2). Davis and colleagues (2015) echoed the idea from the GSC and stated the “essence of effective shelter and housing following a disaster,” included a focus on resolving issues related to land tenure (p. 34).

When considering this knowledge claim within current gaps in the literature, I suggest several recommendations for future research. There is a substantial body of research devoted to age-friendly housing (e.g., Bigonnesse, Beaulieu, & Garon, 2014; Elsawahili, Shah Ali, Ahmad, & Al-Obaidi, 2017; Frochen & Pynoos, 2017; Parekh, Adorno, Fields, Magruder, & Felderhoff, 2015; WHO, 2007) and disaster-resilient housing (e.g., Ahmed & Charlesworth, 2015; Gautam, Prajapati, Paterno, Bhetwal, & Neupane, 2015; Rosowsky, 2011; Tran, 2015), specifically. Albeit, the number of studies concerned with the intersections between these concepts are slight. Age-friendly housing is usually explored through a development lens and within non-disaster environments, while disaster-resilient housing is commonly understood through a relief lens and in the post-disaster context. However, the connections between the two are intimate, and researchers should examine, for instance, the points of overlap and divergence between age-friendly and disaster-resilient housing, that is: How housing can be developed (e.g., in the post-disaster housing reconstruction process) to be both age-friendly and disaster resilient in contexts and situations whereby older persons have limited resources (material and financial); how age-friendly and disaster-resilient housing looks across different cultural and social contexts; and the barriers and challenges (specifically unequal land tenure policies) to developing and accessing age-friendly and disaster-resilient housing.
5.3.4 Knowledge claim four regarding social relationships.

This knowledge claim concerning social support from kinship relationships reinforces the findings in the literature specific to older persons and disasters, that concludes that social support bolsters resilience in the pre and post-disaster context (e.g., Acierno et al., 2006; Ashida et al., 2016; Bei et al., 2013; Bockie & Miller, 2016; Cherry et al., 2015; Claver et al., 2013; Hikichi et al., 2016; Hrostowski & Rehner, 2012; Lin et al., 2002; Loke et al., 2012; Seplaki et al., 2006; Stanko et al., 2015; Tuohy et al., 2014). At the same time, the focus in my study was on kinship relationships, which is an under-examined type of social relationship in the literature. Only in three studies (Bei et al., 2013; Bockie & Miller, 2016; Tuohy et al., 2014) did researchers explicitly identify kinship relationships as a source of social support, and within these studies, kinship relationships were not denoted as a distinct type of social relationship, they were categorized together with others such as neighbours and friends. Also, only Ashida and colleagues (2016) described the reciprocal nature of social support, whereby older persons were both recipients and providers of such support.

Beyond the studies related to older persons, there also exists a paucity of literature concerning kinship relationships and resilience. In support, Henderson and Hildreth (2011) argued that "we do not fully understand the importance of studying disasters using a developmental and familial lens" (p. 1278). Also, several scholars (e.g., Cao, Jiang, Li, Lo, & Li, 2013; Felix, et al., 2015; Kilmer & Gil-Rivas, 2010; Lindgaard, Iglebaek, & Jensen, 2009; Walsh, 2007) suggested that the focus of the literature is on understanding risk and protective factors occurring at the individual or the community level and in doing so fails to recognize the role of the family and the interactions between the individual, family, and community. Notwithstanding, there are notable insights found within this body of literature that contributes to an understanding concerning the
role of kinship relationships. For example, Walsh (2007) pointed to how individual family members can experience "secondary traumatization and compassion fatigue in learning about and responding empathically to, a loved one's trauma experiences and also through ongoing contact when disruptive symptoms and harmful behaviors persist" (p. 208). At the same time, she noted that the family can be a resource to tap into and mobilize during disaster recovery.

Also, another example that showcased the significance of the family unit for resilience within the disaster context, was provided by Cao and colleagues (2013) in their study whereby they investigated the relationships between family functioning and post-disaster mental health, among people affected by the Wenchuan earthquake in China. They found that positive family functioning, comprised of high levels of family cohesion or “emotional bonding among family members,” family adaptability or “ability of the family to change its rules, role relationships, and power structure in response to developmental changes or situational stressors,” and family communications, which is the “facilitating factor to cohesion and adaptability” (p. 1), significantly predicted better self-rated health statuses post-disaster. Similarly, other researchers (e.g., Kilmer & Gil-Rivas, 2010; Lindgaard et al., 2009; McDermott & Cobham, 2012; Osofsky & Osofsky, 2018; Vigil & Geary, 2008; Wickrama & Kaspar, 2007) also highlighted this connection, whereby pre-disaster family functioning (e.g., positive/healthy vs. dysfunctional) was related to post-disaster mental health and the capacity of the family members to respond to and recover from the impacts of disasters.

The variances in family structures was another important insight noted by Cao and colleagues (2013). For instance, most of the available studies focused on the traditional or nuclear family, in which members were cohabitating in the same household, and the specific focus was on the parent-child/adolescent relationship (e.g., Felix et al., 2015; Kilmer & Gil-Rivas, 2010;
McDermott & Cobham, 2012; Osofsky & Osofsky, 2018; Vigil & Geary, 2008; Wickrama & Kaspar, 2007). In contrast, Cao and colleagues (2013) argued that across different contexts and cultures, family structures varied. For example, in their study conducted within rural China, they stated that “in Chinese society, especially in rural areas, the extended family is the dominant family structure” (p.7). Furthermore, they suggested that to capitalize on the strengths of a family and mobilize the family network as a resource for its members to better mitigate, prepare for, respond to, and recover from the impacts of disasters, it is essential to attune to such variances in family structures. This more closely aligns with my own research, whereby the family structures consisted of older women either living alone or as the head of a single-headed household and the relationships of importance were between the older person and the adult child and/or grandchild.

In terms of future research concerning social support and resilience within the context of disasters, I offer several recommendations. Overall, in addition to further research which identify the nature of the different types of social support (e.g., tangible, emotional, informational, and anticipated support) that are pertinent to resilience, the different types of social relationships (e.g., kinship, spousal, and peer relationships) needs to be examined. For instance, while it was evident that kinship relationships were of prominent importance to the older women in my study, the social support received was limited to tangible and anticipated types of assistance. Emotional and informational support have been clearly identified in the literature as critical types of social support throughout the disaster management cycle (e.g., Budosan, O’Hanlon, & Aziz, 2014; Dückers et al., 2018; Rao, 2006; Sellnow, Seeger, & Ulmer, 2002; Tasic & Sulfikar, 2016). To that end, researchers should seek to uncover how older persons’ various needs for tangible, emotional, informational, and anticipated support are (or are not) being met through different types of social relationships, and the various implications of this to their resilience. Furthermore,
and scholars that seek to explore resilience through a familial lens, should take note of what Cao and Colleagues (2013) suggested that variances in family structures are considered. Specifically, a focal point should be on multi-generational households (that include older persons) and households headed by older persons.

5.3.5 Knowledge claim five regarding healthcare disparities.

The assertion that pre-existing health conditions can hinder resilience within the context of disasters is demonstrated in the literature specific to older people and disasters (e.g., Al-Rousan et al., 2014; Ardalan et al., 2010; Acierno et al., 2006; Bhalla et al., 2015; Bockie & Miller, 2016; Dostal, 2015; Kohn et al., 2005; Hikichi et al., 2016; McGuire et al., 2007). Albeit, within these studies the authors fell short in discussing how pre-existing health conditions were related to unequal access to “health coverage, access to care and quality of care” (Edlin & Golanty, 2016, p. 437). Often healthcare disparities are experienced by people who have been systematically marginalized “based on their race or ethnicity; religion; socioeconomic status; education; gender; age; mental health; cognitive sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion” (Edlin & Golanty, 2016, p. 437).

When reviewing the broader literature on resilience within the context of disasters, the same gap was apparent, whereby healthcare disparities is an under-examined topic (Davis, Wilson, Brock-Martin, Glover, & Svendsen, 2010). For instance, in their systematic literature review concerning disasters, health, and healthcare disparities, Davis and colleagues (2010) concluded that “there has been extensive research published on disasters, health disparities, health care disparities, and medically underserved populations individually, but not collectively” (p. 1). The few scholars that deliberated the impacts of healthcare disparities within the disaster
context, have suggested that it was a predictor of post-disaster physical and mental health and that such disparities were either created or exacerbated during and after disasters (e.g., Arosemena, Fox, & Lichtveld, 2013; Davis et al., 2010; Fonseca et al., 2009; Lichtveld, 2018; Moreno-Walton & Koenig, 2016). Researchers also found that healthcare disparities throughout the disaster management cycle were related to differences in race/ethnicity (Bethel, Burke, & Britt, 2013; Jones, 2012), socio-economic status (Davis et al., 2010; Fonseca et al., 2009; Lichtveld, 2018; Nicogossian et al., 2012), age (Moreno-Walton & Koenig, 2016), gender (Arosemena et al., 2013; Moreno-Walton & Koenig, 2016), and immigrant status (Collins, Jimenez, & Grineski, 2013). In my study, the older women highlighted how barriers in accessibility and quality of care were related to age and socioeconomic status, and as such reinforced the need noted in the literature to focus on healthcare disparities within a disaster context.

Additionally, the essential role of primary health care services within a disaster context also concurred with findings from the broader literature on resilience and disasters (e.g., Davis et al., 2010; Runkle, Brock-Martín, Karmaus, & Svendsen, 2012; WHO, 2013). For instance, Runkle and colleagues (2012) argued that following the immediate impact of a disaster, the healthcare system experiences a "secondary surge," which is a period where "the demand for primary care services dramatically increases in the extended period following the acute response" (p. e28). However, if primary healthcare services, pre-disaster, were fragile (e.g., shortages of primary health care providers, quality of primary health care is lacking, and/or lack of age-appropriate care), then within the post-disaster context, the health risks of populations who were already experiencing disparities would be further amplified. These authors further contended that within a "market model" of health care services, the "medically vulnerable
subgroups lack power . . . and are therefore less equipped to compete for necessary services after a disaster in elevated unmet primary care need” (p. e25). My study findings reinforced this necessity to focus on the accessibility and quality of primary health care and its implications for resilience in a disaster context.

In reference to the literature and with this knowledge claim in mind, various directions for future research are proposed. Overall, there is a need for more researchers investigating the relationship between healthcare systems (including health care coverage, access to care and quality of care) and resilience within the context of disasters. Specifically, researchers should focus on medically underserved groups, such as older people who are living in poverty. The focus of future studies can include for example, the barriers and challenges older people living in poverty face to access healthcare; how healthcare disparities are experienced by marginalized groups of older persons in a disaster context; the role of primary healthcare services, post-disaster, in meeting specific needs of older persons; and how healthcare services can be enhanced to mitigate the impacts of disasters on medically underserved older persons.

5.3.6 Knowledge claim six regarding spirituality/religiosity.

The knowledge claim that spiritual/religious faith, beliefs, and practices bolster resilience throughout the disaster management cycle supports findings in the literature specific to older people and disasters. Specifically, Bei et al. (2013), Henderson et al. (2009), and Stanko et al. (2015) found that activating spiritual/religious faith, beliefs, and practices during and after a disaster was therapeutic because it helped participants to manifest positive attitudes that enabled them to cope with adversity. At the same time, evidence in the literature suggested that spiritual/religious faith, beliefs, and practices could negatively impact older people’s ability to cope with disaster (e.g., Cherry et al., 2015; Silva Brown et al., 2010; Wang et al., 2012; Stanko
et al., 2015). An essential caveat within these studies was determining the various types of spiritual/religious coping strategy employed. For example, Stanko and colleagues (2015) found that while most of their participants in their study adopted positive adaptive coping strategies, some utilized their spiritual/religious framework to reason that Hurricane Katrina was God’s way of “punishing and purifying New Orleans,” which represented a maladaptive coping strategy (p. 567).

The focus on identifying and understanding different types of spiritual/religious coping strategies that could bolster or hinder resilience was also discussed in the broader disaster literature (e.g., MHum, Bell, Pyles, & Runnels, 2011; Peres, Moreira-Almeida, Nasello, & Koenig, 2006; Sipon et al., 2015). For example, Peres and colleagues (2006) outlined the following seven positive spiritual coping strategies:

- benevolent reappraisal (seeking a lesson from God in the event); seeking spiritual support (searching for comfort and reassurance through God’s love and care); active religious surrender (doing what one can and then putting the rest in God’s hands); seeking spiritual connection (thinking about how life is part of a larger spiritual force), and seeking religious direction (prayed to find a new reason to live). (p. 348)

MHum and colleagues (2011) advanced that these types of strategies were recognized as positive as they represented pathways for positive outcomes such as a renewed sense of meaning and purpose, “inner peace, self-esteem, perseverance, and helping others” (p. 297).

On the other hand, maladaptive coping strategies included, for example, “spiritual discontent, punishing God reappraisal, interpersonal religious discontent, demonic reappraisal, and reappraisal of God’s power” (Sipon et al., 2015, p. 359). Such strategies were considered negative or maladaptive because the strategies were related to worse health and well-being.
outcomes including, for example, stress, depression (and other psychopathological symptoms), "deficits in social functioning," and mortality (Peres et al., 2006, p. 347). In my study, the type of spiritual/religious strategies used was also important to identify whether or not this factor bolstered or hindered resilience. It was evident that the older women activated their spiritual/religious faith, beliefs, and practices in an adaptive way, in the pre and post-disaster context, that contributed to positive outcomes such as having a positive attitude (e.g., thoughts of gratitude and hopefulness), and modified thinking/positive reframing (e.g., ideas of acceptance and moving forward).

Through examining this knowledge claim in the context of the literature, there are noteworthy areas for future research. For instance, there is strong evidence (which is also reinforced by my study findings) to suggest that spirituality/religiosity can play a key role in shaping and influencing older people’s resilience. What is less clear and should be a focus for future studies, is, for example, the ways in which older persons activate their spiritual/religious faith, beliefs, and practices that either serve to bolster or hinder their resilience; what are the various spiritual needs of older persons within a disaster context; what is the role of spiritual care within a disaster context and what are the capacities (and willingness) of humanitarian agencies (specifically secular-based INGOs or NGOs) to provide spiritual care for older persons within a disaster context (Ha, 2015).

5.3.7 Knowledge claim seven regarding gendered roles, norms, and stereotypes.

When comparing and contrasting this knowledge claim with the literature on older people and disasters, there are two significant points for consideration. First, my findings reinforce the proposition that within a disaster context, gender differences (specifically favouring males over females) exist throughout the disaster management cycle (e.g., Acierno et al., 2006; Hickchi et
Second, in all of the 13 studies included in the scoping review in which gender was investigated, the researchers conceptualized it as an objective measure based on sex, which “refers to the biological characteristics that categorises someone as either female or male” (Madaha, 2012, p. 284). There was no explicit exploration about the impacts of gender, as a complex socially, culturally, and contextually based concept, on older people’s resilience. As such, important gender-related factors and processes such as sexuality, intimacy, embodiment, gender relations, practices, norms, attitudes, beliefs, and roles, were not examined in relation to resilience.

In contrast, the topic of gender as a “complex socially-constructed factor” (Alston, 2013, p. 223) and its impacts were more widely discussed in the broader disaster literature (e.g., Alburow-Canete, 2014; Alston, 2013; Dominelli, 2013, 2014, 2017; Drolet et al., 2015; Juran, 2012; Juran & Trivedi, 2015; Liu & Hyde, 2017; Madaha, 2012; Mason & Agan, 2015; Neumayer & Plumpert, 2007; Ofreneo & Hega, 2016; Reyes & Lu, 2017). From this body of research there were several knowledge claims concerning gender that aligned with my study findings. First, it was advanced within this body of literature that gender differences exist throughout the disaster management cycle and that these largely hinder women’s resilience. Specifically, the unequal burden of roles and responsibilities of women in family, community, and productive work were highlighted (e.g., Alston, 2013; Drolet et al., 2015; Madaha, 2012; Neumayer & Plumpert, 2007; Ofreneo & Hega, 2016). For example, Drolet and colleagues (2015) found, in their case study examining the impacts of gender roles and power relations within a disaster context (“flooding in the Bodin district of Sindh, Pakistan”), that “changes and strain on women’s gender role in families and communities were evident post-disaster, . . . [whereby the] women’s workload had effectively doubled . . . In contrast, men’s workload
remained largely unchanged” (p. 439). The women in their study, post-disaster, had “to take on additional roles in the reconstruction of family life as well as reconstruction of their homes” (p. 440). My study findings reinforced this idea that often women were overburdened with multiple roles that were only exacerbated within a disaster context. Despite the differences in living arrangements (e.g., two of the older women lived alone) it was evident that all of the women in my study played a dual role as carers and as primary (or sole) breadwinners. Furthermore, the older women in the study provided examples of how they took on additional roles, post-disaster (e.g., soliciting NGOs and government for disaster assistance for their adult children and grandchildren and physically helping out with the reconstruction of their houses).

Second, some scholars identified how gendered divisions of labour, pre-disaster, were perpetuated in disaster relief and recovery processes (e.g., Alston, 2013; Juran, 2012; Ofreneo & Hega, 2016). As an example, Juran (2012) argued in his assessment of the role of gender in post-tsunami Tamil Nadu, India, that women’s needs were “rendered semi-invisible . . . in terms of livelihood rehabilitation,” because the focus was on “‘productive assets’ such as fishing boats and nets which were predominantly male-owned” (p. 13). The assumption was that the males were the primary breadwinners and contributors to the household. However, the women were critical economic contributors to the households in the pre-disaster period as well, vis-à-vis, running “petty shops, tea stalls, tailoring units, [cultivating] small gardens, [selling] dairy products and fish in the markets, etc.” (p. 13). Juran (2012) noted that many of these women were also members of self-help groups, which enabled them to build and develop their livelihood(s), but were not usually “aided in restoring the assets of their members; meanwhile men were able to obtain fishing equipment from several sources” (p. 14). Similarly, Alston
(2013) used an example to note an important point about gender assumptions and livelihood rehabilitation:

men may be provided with new fishing boats to help them re-establish their lives. In the same village women may receive spinning wheels or cooking stoves demonstrating how resource distribution based on uninterrogated assumptions can result in inequalities being perpetuated in disaster crisis responses. (p. 224)

Gendered divisions of labour were also evident in my study, as the older women expressed that their employment/livelihood(s) were limited to selling vegetables, operating a food vending business, doing other people’s laundry or operating a sari-sari store, which offered limited livelihood options and were further compromised and uninterrogated post-typhoon Haiyan. In terms of livelihood rehabilitation, only the women with sari-sari stores were provided with assistance to restore the assets lost, but other livelihood(s) (and associated assets) and the need to diversify livelihood options were largely unrecognized and unsupported.

Third and lastly, a key message purported by various scholars was the importance of recognizing intersectionality (e.g., how gender intersects with other identities such as age, socioeconomic status, education, religion, sexual orientation, and ability, amongst others) and the diversity of women’s experiences throughout the disaster management cycle (e.g., Alburo-Canete, 2014; Alston, 2013; Drolet et al., 2015; Liu & Hyde, 2017; Neumayer & Plumpert, 2007). As an example, Neumayer and Plumpert (2007) found that socioeconomic status was a mediating factor in terms of gender differences in mortality rates from disasters. They found that while “disasters lower the life expectancy of women more than that of men,” the higher the women’s socioeconomic status the weaker the effect on the gender gap in life expectancy (p. 551). Juran (2012) also noted the importance of recognizing intersectionality in his study, stating
that “the effects of gender protruded even deeper among several marginalized categories such as widows, female-headed households and single and elderly women” (p. 8). In my study, it was also evident that other identities such as age, socioeconomic status, living arrangements, and marital status intersected with gender to influence and shape the older women’s capacity to mitigate, prepare for, respond to, and recover from disasters.

In reviewing this knowledge claim with the literature, several areas for future research are proposed. Overall there needs to be more of a focus on how gender, as a socially constructed phenomenon, impacts the resilience of older persons. While there is literature that suggest older women (as compared to older men) are disproportionately impacted by disasters, there is a need for scholars to continue to explore the varied experiences and dimensions of resilience among older women and men, across (and within) cultures and contexts, in order for a deeper understanding of how other identities (e.g., socioeconomic status, ability, sexual orientation, religion, age, culture, and ethnicity) intersect to impact resilience. For instance, if socioeconomic status is a key mediating intersecting factor in how gender impacts older people (e.g., as evidenced by Neumayer and Plumpert [2007]), then it is also essential to explore how older men living in poverty encounter gender related issues and challenges in times of disasters that hinder their resilience (Juran, 2012). Another important focus point for future research is to investigate the implications of ageism and sexism on resilience. For instance, what are assumptions about older women and men across various context and cultures that remain uninterrogated and adversely impact their capacity to mitigate, prepare for, respond to, and recover from disasters. Also, it would be important to understand the extent to which older people themselves adopt gender and age-related stereotypes that adversely impact their resilience, and what are pathways to combating such beliefs.
Finally, future research should be directed at investigating how disaster relief and recovery can be provided in ways that address rather than perpetuate existing patterns of gender and age inequalities. For instance, an important consideration within the body of literature (not specific to older persons and disasters) that was not identified in my study but critical to highlight were knowledge claims and findings concerning gender-based violence (GBV) against women within the context of disasters. GBV is “an umbrella term for any harmful act that is perpetuated against a person’s will and that is based on socially ascribed (i.e. gender) differences between males and females” (IFRC, 2015, p. 13). While men and boys may also be victims of GBV (and more research is needed to explore this facet of the issue), most GBV is perpetuated by men and directed to women and girls, which reinforces the “systemic inequality between males and females [favouring the former over the latter] – which exists in every society in the world” (IFRC, 2015, p. 13).

A recent study by the IFRC (2015) exploring gender-based and sexual violence within a humanitarian context, found that both domestic violence and sexual violence increased in a post-disaster context and that access to resources and support for victims were even more limited. Furthermore, they found that displacement from one’s home (e.g., living in temporary shelters) and disruptions (or damages) in livelihood(s)/employment that lead to further impoverishment can increase the rates of GBV. The lack of awareness of GBV by responders of disasters (e.g., practitioners and policy-makers) and the “stigma and shame associated with GBV” further contributes to the under-reporting and lack of interventions in addressing the issue and supporting the victims (IFRC, 2015, p. 8). While numerous studies in the peer-review literature substantiate these knowledge claims (e.g., Enarson, 1999a, 1999b; Enarson & Fordham, 2001;
Fisher, 2010; Nazhat Shameem Khan, 2016; Rahill, Joshi, Lescano, & Holbert, 2015), GBV within the context of disasters remains a relatively neglected area of inquiry.

The lack of awareness and knowledge surrounding GBV within the context of disasters is also evident in the Philippine context, specifically (Alburo-Canete, 2014; Delica, 1998). Alburo-Canete (2014), for example, ascertained that “gender/sexuality policy research is a relatively less explored academic area of interest in the Philippines, especially in terms of its intersection with disaster risk management and development” (p. 35). In her qualitative study case study investigating the sexual and gendered dimensions of “the disaster response and rehabilitation efforts carried out in southern Philippines after . . . the tropic storm Washi (locally known as Sendong) in December 2011,” that in one of the relief camps GBV “remained a perennial problem” and she “was able to record 97 cases of various incidences of [GBV] . . . in four evacuation camps . . . [and] more than 80 percent of such cases were against women and girls” (p. 41). Furthermore, Alburo-Canete found that service providers lacked sensitivity in handling GBV cases. While GBV was not an issue identified in any of the literature specific to older persons and disasters, it remains a critical point of discussion and exploration for practitioners, policy-makers, and researchers. In particular, there is a need to understand GBV within the context of disasters as it relates to older women, as most of the research on GBV generally focuses on younger women (Straka & Montminy, 2006). Furthermore, the intersections between GBV and elder abuse within the context of disasters is important to determine, as the two issues are most often examined independently of one another (Gutman & Yon, 2014).

5.4.8 Knowledge claim eight regarding independence and dignity.

In the body of literature concerning older people and disasters, only two studies (Ardalan et al. 2010; Tuohy & Stephens, 2011) considered the role of independence and dignity in
determining resilience. Knowledge claim eight is consistent with the findings of these two studies, as the researchers highlighted that within a disaster context the need for independence and dignity was strong and perhaps as important as physically tangible basic needs (e.g., food and shelter). For example, in Ardalan and colleagues’ (2010) study the need for preserving dignity and the role as a respected elder in the community helped to explain why their participants were not actively seeking out disaster assistance, namely because such support was provided in a way that conflicted with these personal values.

Within the broader disaster literature, the topic of independence and dignity (or related concepts such as autonomy, choice, and respect) also received limited attention. An interesting point raised by some scholars, relevant to this knowledge claim, was the use of cash transfers within a disaster context as a means to promote and preserve independence and dignity (e.g., Angle, 2015; Doocy, Gabriel, Collins, Robinson, & Stevenson, 2006; Harvey, 2006; Overseas Development Institute [ODI], 2015; Mattinen & Ogden, 2006). Pega, Lui, Walter, and Lhachimi (2015) defined cash transfers as “cash payments that are provided by formal institutions (governmental, INGOs, or NGOs) to selected recipients, generally to enable them to meet their minimum consumption needs” (p. 8). Cash transfers are considered a form of social protection intervention and is increasingly used within a humanitarian context (such as a disaster), because of its potential to accommodate diverse objectives, such as meeting basic needs, stimulating economic activity, and supporting social activities while at the same fostering the dignity and autonomy of the beneficiaries (Angle, 2015; Harvey, 2006).

In Angle’s (2015) mixed method study the impact of unconditional transfers within a humanitarian context across three countries (Democratic Republic of Congo, Nepal, and the Philippines) from the perspective of the beneficiaries, found that the most useful aspect of an
unconditional cash transfer, was that it respected and afforded the beneficiaries to maintain their dignity. Other vital elements included: "maintenance of privacy, support meeting priority needs, support action improving the situation, return to normalcy, and achieve long-term stability" (p. 16). In my study, the older women shared how they received disaster assistance in the form of cash (albeit, not all were unconditional cash transfers and included cash-for-work programs), and they also noted that this type of aid was most helpful (as compared to, for example, disaster assistance in the form of building materials for their houses) as it provided them with the choice and freedom to attend to their priorities in the rebuilding process.

In terms of future research concerning independence and dignity and resilience within the context of disasters, there are several recommendations of importance. Generally, there needs to be more research that investigates the impact of intangible factors (such as the need for independence and dignity) on the resilience of older persons. Research that examines how older people themselves prioritize their needs in the rebuilding process and elucidate the various pathways to foster independence and dignity throughout the mitigation, preparedness, response, and recovery phases are necessary. Also, studies that determine how such pathways are similar or dissimilar between sub-populations of older people within their diverse contexts are required, as is a more fulsome understanding of the impacts of cash transfers on older person’s resilience pre and post-disaster.

5.4 Research Implications

5.4.1 Research implications for the local context.

5.4.1.1 Research implications for the older women in my study.

The European Commission (EC, 2001), defined lifelong learning as “all learning activity undertaken throughout life, with the aim of improving knowledge, skills, and competencies
within a personal, civic, social and/or employment-related perspective” (p. 9). Lifelong learning encompasses and values the whole spectrum of learning modalities including formal (e.g., “learning typically provided by an education or training institution [that is] structured [in terms of learning objectives, learning time or learning support] and leading to certification”), non-formal (e.g., “learning that is not provided by an education or training institution and typically does not lead to certification [that] is however, structured [in terms of learning objectives, learning time or learning support]”), and informal (e.g., “learning resulting from daily life activities related to work, family or leisure [that] is not structured . . . and typically does not lead to certification”) (EC, 2001, p. 33). Additionally, formal and non-formal learning “is intentional from the learner’s perspective,” while informal learning “may be intentional but in most cases, it is non-intentional (or ‘incidental’/random)” (EC, 2001, p. 33). Fostering lifelong learning in older adulthood has been recognized by numerous gerontological scholars (e.g., Jamieson, 2012; Merriam & Kee, 2014; Perkins & Williamon, 2014; Ramscar, Hendrix, Shaoul, Milin, & Baayen, 2014; Tam, 2014) and international organizations (e.g., EC, 2001; WHO, 2007; UNFPA & HAI, 2012) as a critical dimension that contributes to individual, family, community, and societal well-being.

As noted in Chapter three, this study was informed by PAR and thus incorporated opportunities for the participants to learn and develop new skills and knowledge throughout the project. As such, this study can be seen as a lifelong learning activity (incorporating both informal and non-formal attributes). The workshop training sessions, which were more structured and represented non-formal types of learning, focused on learning basic camera photography, conducting peer interviews, developing a dissemination video, and planning a dissemination activity. Also, various unstructured times throughout the study that enabled
informal conversations and socialization can be considered informal learning opportunities for the older women.

Additionally, Field (2009) argued that often a focus on the benefits of lifelong learning is on the economic gains, but an equally important outcome is the promotion of personal well-being and happiness, such as the joy in pursuing one's sense of curiosity and the adventure of learning something new. It can be suggested from the findings of the research process, that the older women enjoyed the learning activities offered by the study. Specifically, all four participants talked about how they appreciated their experiences in learning to use a digital camera for the first time. Furthermore, some of the older women shared how learning this new technology and associated skills intersected with family life (e.g., taking practice photos of their children and grandchildren).

The findings of the study demonstrate that integrating lifelong learning opportunities within a research study with older persons can be one way to actualize the value of reciprocity and mutual benefit to the participants in a research program (Banks et al., 2013). However, it is important to note that lifelong learning discourses are primarily developed from a Western perspective and in the context of higher income and developed countries (Preece, 2009). Preece (2009) drew attention to the “dangers of theoretical transfer across contexts [especially in countries of the global south that have been formerly colonized nations],” and the importance of integrating “indigenous knowledge, cultural, spiritual and social values” in the lifelong learning agenda (p. 586). Concerning this study, I recognized (in hindsight) that most of the lifelong learning opportunities built into this study were limited by teaching and learning modalities based on western pedagogical ideas, concepts, and norms (e.g., structured styles of teaching and learning through workshops and training sessions). In the future, and as recommended by Preece,
(2009), scholars (including myself) who wish to integrate lifelong learning within a research program across different cultures and contexts need to deeply reflect on different “cultural value systems, as well as social and political histories,” and their impact on learning (e.g., teaching and learning practices and frameworks) (p. 597).

5.4.1.2 Research implications for the broader community.

The research implications for the broader community were related to two principal activities: a local dissemination event held on October 5th, 2016 in the barangay of Apitong (the community where this study was conducted) and a project, entitled, *Healthy Ageing Service Leaders Training*, that was implemented from October 2018 to January 2019 that engaged community members from Apitong, as well as nine other barangays in Tacloban City, and a research brief that was provided to COSE to disseminate to their staff and networks.

As this study was informed by PAR principles, it was thus essential to include a local dissemination activity, co-organized with the participants, as an integral component of the study design. A meeting was held with the participants and the OPA president of Apitong on September 3rd, 2016 to plan for this event. The planning meeting included brainstorming and discussing: the presentation of study findings, logistical plans (e.g., budget allocation, date, time, length, and venue), other activities, the types of food and refreshments to serve and who should cater the event, and who should be invited, aside from older persons living in the community.

The event brought together various stakeholders (e.g., older persons living in the community, local barangay officials (including the barangay captain), COSE staff, and local barangay health workers) to learn about and discuss older people’s resilience through the presentation of the short co-created video of the study findings (see Appendix T for the link to video). The four participants also shared their experiences. In addition, there were other notable
implications for the wider community. For example, the event was planned as a social participation activity, with opportunities for the participants to socialize and have fun. Social participation is one of the eight priorities identified by the WHO (2007) that is integral to developing age-friendly communities. Social participation is defined as “the engagement of older people in recreation, socialization, and cultural, educational and spiritual activities” (WHO, 2007, p. 9) with others “in the community, as well as, with the family” (WHO, 2007, p. 38). Aside from informal opportunities to socialize, the event included a dancing competition (using Kuratsa, a courtship style of dancing that is well known among older persons in the Visayas region, where Tacloban is located (A. Aguirre, personal communication, September 3rd, 2016). Figure 19 is a photo of Nanay Pipay participating in the dance competition.

Figure 19. Nanay Pipay doing the Kuratsa

The event engaged representatives from the local barangay health centre, one of whom delivered a presentation related to health and ageing and another provided blood pressure and weight checks. Figure 20 depicts Nanay Corit having her blood pressure checked by a local barangay health worker.
There are limitations to the extent to which the event was able to disseminate the findings of the study. As the event was only one-day, it did not permit an in-depth discussion of the various issues, challenges, experiences, and possibilities related to older people's resilience in their community. For example, the gender implications that were identified as a key finding in the study, is a complex and sensitive topic that would have required more time and space to discuss with the various stakeholders. Particularly, as the local policymakers (including the barangay captain and most of the barangay officials) were males. Future research that integrates local dissemination activities must consider the time and resources necessary to implement dissemination activities (that cover potentially more sensitive topics, including potentially GBV) that could have a more extended impact. Another limitation of the event concerns the people who did not attend the event. For instance, while all older persons in the community were invited, the study participants and the OPA president invited the guests during one OPA monthly meeting. Thus, older persons who were not members of the OPA may have been inadvertently excluded from the event. Furthermore, while the event was held within the community, depending on
where one lived in Apitong, it could be a far travel distance to the venue, and older persons with mobility issues who do not have the funds to take a pedicab may have been excluded as well.

The Healthy Ageing Service Leaders Training project, implemented from October 2017 to January 2018, was not formally part of this dissertation (as field activities directly related to my study concluded on October 7th, 2016). However, I include a discussion about this project, because key findings related to this study inspired its development. Mainly, the findings related to healthcare disparities (knowledge claim five) that highlighted a need for the local barangay health centres to be more engaged in assisting with meeting the needs and overcoming the challenges experienced by older persons in the community. The Healthy Aging project was co-developed and co-implemented by myself and COSE, the local NGO that hosted this study. Details of the project (e.g., objective, target area and beneficiaries, budget, outcomes, and activities) can be found in the concept note in Appendix U.

In brief, the Healthy Ageing project aimed to recruit and train a group of 30 volunteers to serve as healthy ageing service leaders. The service leaders went through a 16-week training session (half day sessions) to develop their skills, knowledge, and experience in planning and facilitating activities and events related to healthy ageing in their barangays. The Healthy Ageing project site was in Tacloban City and involved ten barangays (including Apitong). Three volunteers (a representative from the local barangay health centre and two other community members, one of whom had to be an older person) were recruited to co-facilitate four service days related to health and ageing, during the 16 weeks training session, in their respective barangays. In the Healthy Ageing project, the WHO's (2018b) definition of health, as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (para. 1), was adopted and integrated with the volunteers’ perspectives and ideas.
regarding health and ageing. Also, the three final three weeks of the Healthy Ageing project were allocated to brainstorm and plan the sustainability of the project (see Appendix V for the planning session agendas).

Significant implications of the Healthy Aging project for the broader community included: nurturing relationships between local barangay health workers and older persons in ten participating barangays; building the capacities of community members and local healthcare workers to address local issue and challenges, and pursue possibilities related to healthy ageing; promoting the engagement of older adults in healthy ageing activities (a total of 40 activities were held, whereby each barangay facilitated four service days over the course of the 16 weeks). These service days encompassed a wide variety of activities that were organized and implemented by the volunteers and included, for example, a focus on physical activities (e.g., Zumba classes for older persons) or learning activities whereby the volunteers planned a discussion style meet-up for older persons in the community on topics related to healthy ageing (e.g., mental health, dementia, social participation, and nutrition).

5.4.1.3 Research implications for local community practitioners and policy makers.

Local community practitioners and policy-makers play a key role in shaping resilience within the context of disasters. Thus, it is important to support these critical stakeholders by enhancing their awareness and knowledge concerning unique issues/challenges experienced by older persons and engaging them in more effective ways of allocating resources to address such issues/challenges. For instance, a recommendation arising from the findings of my study is that local practitioners and policy-makers should support the diversification of employment/livelihood opportunities for seniors by providing technical education and skills development programs that are age-friendly and sustainable. In my study, the
employment/livelihoods of the participants were critical to their (and the overall household’s) sustenance. However, the income gained were often inconsistent insufficient to build savings and capital. This is particularly important if older persons’ employment/livelihoods are affected or destroyed by a disaster (as in the case of Typhoon Haiyan). Further, the types of employment/livelihoods available to these older women were limited. Broadening the possibilities for what they can do in terms of employment/livelihoods can help to diversify (and potentially increase) their income sources, and, in turn, could potentially enable them to better adapt to changes in situations and contexts brought about by a disaster. To support the diversification of employment/livelihoods for older persons like the participants in my study, local practitioners and policymakers can seek to partner and engage the Technical Education and Skills Development Authority (TESDA, 2018), a government agency that oversees the development of technical education and skills in the Philippines, to create, enhance, and foster specific learning and training opportunities that are both age-friendly and sustainable.

Additionally, local community practitioners and policy makers should capitalize on existing, or develop, OPAs in order to build protective processes for older persons at the community level. The study findings highlighted that resilience within the context of disaster is linked to wider development initiatives. The OPAs have the potential to enhance resilience, as the purpose and objectives of OPAs are to galvanize older persons at the community level to address development issues/challenges. Such activities and interventions facilitated through the OPAs, can include for example a focus on building peer-relationships, developing micro-loan programs, and educating older persons on their rights (e.g., rights from forced evictions). In order for local community practitioners and policy-makers to realize the potential of OPAs to bolster resilience within the context of disasters, the recruitment/inclusion of marginalized
seniors in the community as members of the OPAs must be emphasized. Consideration of and creative ways to include and engage older persons living in poverty as members of OPAs are needed, especially for those older persons who are over-burdened with multiple roles and responsibilities and do not have the privilege of time and resources to participate in such activities and programs.

Another recommendation for local community practitioners and policy-makers is to ensure that resilience building practice, programs, and policies are developed in ways that both address the collective situation of older persons, and remain flexible to adapting to the particular and unique situations of older persons. Older persons are often generalized into one homogenous group in practice, programming, and policy documents. While it is helpful in understanding older persons’ issues, challenges, and possibilities in generalized contexts, it is equally important that the particular situations and contexts of older persons are acknowledged. For instance, while the findings of my study represented the collective voices of four older women, each risk and protective factor or process identified, varied in degree for each participant and thus illustrated the need to consider multiple layers of complexity and diversity in older persons’ resilience to disasters. Thus, the meaningful inclusion and participation of diverse voices in the development, implementation, and evaluation of resilience building practices, policies, and research are essential to reflect the heterogeneity of the older population.

Lastly, the role of the family and the importance of strengthening relationships between older persons and their families is an important focal point for local practitioners and policy-makers to consider when developing and implementing resilience building interventions with older persons. The study findings highlighted that family relationships were the most important source of social support for the participants, regardless of whether the older women lived in the
same household as her family members. In times of disaster, family strengthening programs and policies can play an important role in bolstering resilience of older persons. As such local practitioners and policymakers need to integrate such a focus with a disaster risk reduction context. Furthermore, such programs and policies need to focus beyond the nuclear or immediate family/household to include older family members.

To engage local practitioners and policy-makers, I created a research brief that was provided to COSE to disseminate to their staff and networks, vis-a-vis their Facebook page (see Appendix W for the research brief). Within the brief recommendations were made (including the points above) concerning resilience building interventions with older persons living in poverty. Importantly, the research brief is a more passive form of dissemination, as compared to face-to-face engagement with local practitioners and stakeholders to share the brief and engage in a follow-up conversation, and thus is likely limited in its impact. Additional time and resources set aside for the local dissemination of the findings may have enhanced the impact.

5.4.2 Research implications for resilience building interventions within the context of disasters: The case for social work’s holistic practice model.

The findings of this study highlight a need and demand for social workers to contribute to resilience building interventions within the context of disasters. This recognition is not novel, as green social work scholars have made this case, and indeed continue to advocate the unique role that social workers can and do play in addressing environmental crises, such as climate-related disasters (e.g., Alston, 2013; Coates, 2005; Dominelli, 2012; Hetherington & Boddy, 2013; Drolet, Wu, Taylor, & Dennehy, 2015; Lysack, 2012; Miller, Hayward, & Shaw, 2012; Molyneux, 2010; Postigo, 2008; Schmitz, Matyok, James, & Sloan, 2012). For example, Dominelli (2012, 2013, 2014a, 2014b, 2015, 2017), a leading scholar in green social work,
contended that environmental crises such as disasters should be a preoccupation of the profession, as interventions in such contexts are intimately related to social worker’s knowledge, skills, and experience in conducting needs assessments, providing psycho-social support to individuals and families, facilitating community organizing, mobilizing resources, and advocacy, which are all competencies within the repertoire of social work. Also, Dominelli (2014a, 2015, 2017) provides examples of how and in what contexts (e.g., in Sri Lanka after the 2004 Indian Ocean tsunami and in contemporary China) social workers have and can contribute in such situations. My study provides another case example that adds to the evidence base calling for our own profession and international humanitarian aid organizations, such as the UN and IFRC, to realize social work’s potential and unique contributions to resilience building in humanitarian crises (Dominelli, 2015).

Based on the study findings, it can be suggested that resilience-building interventions in the context of disaster require a holistic practice model that prioritizes: intersectionality, working alongside the disaster-affected population, interventions at the micro and macro level, and collaborative work across various sectors. The nature of social work practice is holistic; indeed it is a defining characteristic of our profession (Goldstein, 1973; Hutchinson, 2014). This holistic practice model is particularly well suited to support the complex, cross-sectoral, and multi-directional process of resilience building. Putting such a model into practice means “striving to get the broadest possible understanding of [an individual’s] situation and what is creating the [issues]” and reviewing all possible significant factors and processes in any given situation (Hutchinson, 2014, p. 6). To conduct such a multi-dimensional assessment, a social worker is required to be fully engaged with the individual and their environment “rather than taking an analytical and detached stance” (Hutchinson, 2014, p. 6).
A holistic social work model of practice also entails intervening at multiple levels (e.g., working with and supporting the individual, family, community, and organizations), with an appreciation for utilizing both micro (e.g., individual and family therapy) and macro-level (e.g., community organizing, mobilizing resources, and advocacy) competencies, in tandem (Krogsrud, O’Meila, & Dubois, 2017). A focus on both micro and macro issues is necessary to appreciate the multiplicity of effects and experiences of individuals (and how everyday interactions and daily life impact resilience) and to address the root causes of vulnerabilities (such as poverty and gender and age inequalities).

Lastly, another essential attribute of social work's holistic model of practice that is beneficial to resilience building interventions is the encouragement to practice collaboratively across sectors and disciplines (Wilson & Setturlund, 1987; Quinney 2006). Often a critique (and misconception – even within our profession) is that the holistic social work practice model is unyielding and unrealistic, demanding that the worker be all and end all (McBeath, 2016). While this practice framework necessitates the social worker to have a broad and diverse knowledge base and skill set (e.g., a generalist practice perspective and competencies) it does not require (nor is it possible for) the worker to be an expert/specialist across all (micro and macro) competencies and practice areas. No one discipline, profession, or sector can adequately address the complex and multiple challenges that hinder resilience and realize the variety of possibilities and pathways to bolster it. For instance, in my study, resilience was found to be related to a multitude of cross-cutting issues, and as such resilience building for the older women would require multi-sectoral/disciplinary interventions.
5.4.3 Research implications for social work education, research, and practice: Greening and gerontologizing the profession.

This study is an example of social work research, in which issues that lie at the margins of the discipline were explored; namely, concerns related to green and gerontological social work. Dominelli (2012) defined green social work as:

a form of holistic professional social work practice that focuses on the: interdependencies amongst people, the social organisation of relationships between people and the flora and fauna in their natural habitats; and the interactions between socio-economic and physical environmental crises and interpersonal behaviours that undermine the well-being of human beings and planet earth. (p. 25)

Similarly, gerontological social work is a form of holistic and integrated social work practice (Richardson & Barusch, 2005). Gerontological social work is about understanding and addressing issues related to older persons, the ageing process, and age as a structure of society (Putney, Dawn, & Bengtson, 2005) through an approach that integrates intervention, social policy, service-delivery, and capacity building (Morrow-Howell et al., 2005). Also, a central focus of gerontological social work is on diversity and inequalities, and thus a focus of research and practice is working with marginalized and underserved older persons.

Traditional social work education, research, and practice has yet to integrate and mainstream the issues, ideas, perspectives, and experiences raised by various green (e.g., Androff, Fike, & Rorke, 2017; Bowels, Boetto, Jones, & McKinnon, 2016; Gray & Coates, 2012; Dominelli, 2012; Drolet et al., 2015; Lysack, 2012; Ramsay & Boddy, 2017) and gerontological (e.g., Kaplan & Andersen, 2013; Naito-Chan, Damro-Rodriguez, & Simmons, 2005; Olson, 2011; Ray et al., 2015; Richardson & Barusch, 2005; Sanders, Dorfman, & Ingram,
social work scholars and practitioners. Albeit, there is a great need for such integration, as the contexts in which social workers are practicing in have and are radically changing. Mainly, population ageing and climate change, two of the major global issues of the 21st century that profoundly impact international, national, and local contexts, pose challenges for individuals, families, communities, and the welfare state. These are focal points of social work practice. Social work, its boundaries and the nature of its practice are heavily influenced by the broader environment, as Gibelman (1999) argued, the context-based element of social work practice is, “both appropriate and positive; it signifies awareness of the dynamism of social work as it evolves to respond to and address a changing world” (p. 299).

With respect to both green and gerontological social work, my study contributes to the re-envisioning of contemporary social work to rightly encompass these issues as “the concerns and focus of professional social work practice” (Bowels et al., 2016, p. 10). Mainly, my study calls on the profession to revisit the intersecting issues that are relevant to both green and gerontological social work. In this way, the social work profession is invited to develop a deeper understanding of the interaction between climate change on the built environment and the concept of ageing in place, for example. Social work should consider, how the model of ageing in place can be applied with older persons living in disaster-prone communities and how low-income seniors' housing (and continuing care institutions) could be better prepared for extreme weather events. Other intersecting issues worthy of examination include: the consequences of food scarcity on the food and nutrition security of older people; the adverse impacts of a neo-liberal model of development on the social and economic well-being of older people (e.g., retrenchment or lack of social protection measures such as universal social pension for older persons); the psycho-social needs of older persons and their families displaced by climate-related
factors (e.g., environmental refugees); and promoting sustainable livelihood(s) throughout the life course (e.g., livelihood(s) that are age- and environmentally-friendly).

Mainstreaming green and gerontological social work issues and concerns, does not require an overhaul of the profession’s values, identity, and competencies (Ramsay & Boddy, 2017; Rosen et al., 2003), instead, it necessitates building on and creatively applying existing social work values, skills, and knowledge to address these pressing problems (Ramsay & Boddy, 2017). For instance, Androff and colleagues (2017) highlighted, through three case studies of student-led, social work projects, how social work community practice, a long-standing methodological tradition within the profession, could be effectively applied to "address various social facets of environmental issues" (p. 401). The focus of these projects included: "increasing low-income access to farmers markets through community education" (p. 402); "building a community garden with homeless families" (p. 404); and organizing a grassroots campaign to block a mining project that "threatened to degrade the local ecosystem on public lands" (p. 407). The authors noted that community practice, “with its focus on working with communities to address macro social, economic, and political forces, is a natural point to incorporate green social work" (p. 400), whereas, micro social work practice skills could be useful to help individuals and families who have been adversely impacted by climate change. Crisis work could be applied with families "trapped in poverty unable to pay rising energy costs" (Bowels et al., 2016, p. 2) or grief and loss interventions for environmental refugees who have lost their home, community, and, loved ones (Dominelli, 2015). Additionally, green social work scholars have noted the need to apply a social justice lens to environmental issues and concerns, as marginalized groups, often, experience the most significant impacts of environmental problems (Dominelli, 2012; Beltrán, Hacker, & Begun, 2016).
Similarly, gerontological social workers have also suggested that the knowledge and skills set of social work can be effectively used to address contemporary gerontological matters. As an example, policy advocacy is increasingly essential in supporting socio-economically marginalized older persons in the current neo-liberal milieu, which encourages the retrenchment of the welfare state, “acceptance of market-driven inequality”, and the practice of valuing individuals by how much they contribute to the market economy (McBride & Merolli, 2013, p. 302). Mosely (2013) defined policy advocacy as efforts “directed at changing policies or regulations that affect practice or group well-being,” and contended that the profession's emphasis on social justice and its historical origins in policy advocacy (e.g., the pioneering work of Jane Addams), was evidence that “advocacy is clearly part of social work’s professional identity” (p. 231).

Furthermore, Kaplan and Anderson (2013) have argued that social work’s strengths-based practice perspective is relevant and needed in specific practice contexts, such as dementia care, which is dominated by a biomedical lens. Saleeby (1996) described the strengths perspectives as:

a different way of looking at individuals, families, and communities . . . . The strengths approach requires an accounting of what people know and what they can do, however, inchoate that may sometimes seem. It requires composing a roster of resources existing within and around the individual, family, or community (p. 297).

Importantly, within this perspective practitioners are not encouraged to ignore problems, as "it is as wrong to deny the possible as it is to deny the problem," rather they are directed to have a parallel focus on strengths and assets (Saleeby, 1996, p. 297). In referencing the biomedical model as “the most authoritative and widely accepted model of understanding dementia among
health care and social service professionals, as well as the general public” (p. 172), Kaplan and Anderson (2014) contended that a strengths perspective could be transformational in dementia care, by going beyond the management of illness to include interventions that suggest that, “even persons affected by dementia can have a future” (p. 409). Indeed, adopting a strengths perspective in dementia care invites practitioners to focus on interventions that, for example, support a sense of purpose and quality of life (Kaplan & Andersen, 2014).

Re-envisioning contemporary social work research, education, and practice in the 21st century requires integration and mainstreaming of green and gerontological issues. There is a need for more social work educators (and students), scholars, and practitioners who are concerned about (or actively addressing) such issues to share their ideas, perspectives, and experiences of how and in what contexts social workers do and can contribute to solutions and possibilities. The dissemination of my study findings through various outlets (e.g., peer-reviewed publications in social work journals, social work conferences, and through invited lectures with social work students) is an attempt to share my ideas, perspectives, and experiences of re-envisioning contemporary social work research, practice, and education.

5.5 Limitations of Study Findings

There are four major limitations of the study findings. First, concerns the differences in social identities, location, and experiences between myself and the research participants. For instance, I am in my early 30s, born and raised in a high-income country, and have a graduate-level education. I am of Chinese-Canadian ethnicity, English speaking, and I do not live in a disaster-prone community. These differences create power dynamics and relations throughout the research process that could have impacted the data. Power dynamics and relations are defined as “how power works in a specific context such as who has (and who does not have) the ability
(or agency) to influence others, to negotiate, to affect change, and to make decisions . . . before, during, and after a . . . a study” (Joanou, 2009 as cited in Kwan & Walsh, 2018, p. 375). While I noted in Chapter one and three the educational training and experience and the measures I took to help mitigate the impacts of the power differentials between myself and the participants, I acknowledge that “regardless of [my] training, [my] perceptions and understandings of social issues cannot be divorced from who [I am] and how [I am] perceived in the community” in which I conducted the research (Drolet, 2005, p. 129).

The second limitation of the study’s finding is related to my criteria related to recruitment. Namely, the criterion that the participants were older women. As discussed in Chapter three, the rationale for focusing on older widowed women, as opposed to older men was based on the literature review which highlighted that older widowed women experienced less favourable outcomes post-disaster, were more likely to experience old age poverty, and widowed women who were poor were more likely to experience negative health-related outcomes (e.g., physical disability, lower mental health status or decreased accessed to health care utilization) than older men living in poverty. Despite this limitation, including older widowed men who are living in poverty, head of the household, and living in the same disaster-prone community may have led to a deeper understanding of the gender implications to resilience.

The third limitation regards the transferability of the study findings. While some of the study findings may be relevant in a variety of contexts, such as the findings related to healthcare disparities and religiosity/spirituality, some findings are peculiar to the local conditions such as the results regarding housing and land tenure, that may not be as transferable, for example, to high-income developed countries. To reduce this limitation, it was important to write up the findings in a richly descriptive way to provide the reader with a vicarious experience and
sufficient details so that they can make an informed decision regarding the transferability of the findings in different contexts and case(s) (Merriam, 1998).

The fourth and last limitation I note is that this case study was bound by time; specifically focusing on understanding resilience within the context of disasters during the mitigation phase of the disaster management cycle or non-disaster times. As such the results are most pertinent to an understanding of older person's resilience during this phase and may have overlooked unique issues, challenges, ideas, and experiences related to resilience in the post-disaster context (specifically, in the aftermath of a disaster). A longitudinal study that engages the participants throughout a disaster management cycle would provide a more fulsome understanding of the unique needs and experiences within each phase and how resilience is realized throughout the phases.

5.6 Concluding Remarks

There are two concluding remarks I end the dissertation with. First is regarding the salient take-home message related to my study findings. The challenges brought about by climate change, disasters, and population ageing in the 21st-century context necessitate a focus on resilience building with older persons to address the adverse impacts and realize alternative solutions. Discourses on older people's resilience within the context of disasters are limited in the literature. This study highlighted the complex, multi-directional, and dynamic process of resilience building regarding a specific cohort of older women. More precisely, the findings point to how resilience within the context of disasters was deeply interconnected with wider development issues (e.g., poverty and patterns of gender and age inequalities). Resilience building within the context of disasters must, therefore, be seen through a development, rather than a relief lens, to be sustainable and to address the root causes that hinder resilience.
Second and lastly, while I identified some research implications for the participants in this chapter, my extended engagement with the women throughout data collection has affected me personally and afforded me with personal life lessons and insights that I will carry much beyond my engagement with these remarkable women. From Nanay Fe, I respect her courage in challenging socio-cultural norms about love, intimacy, and partnership in the elder years for older women (especially taboo in her local context). Nanay Corit’s passion for entrepreneurship and pride in building her livelihood remind me that livelihood(s) and work are not merely about income but, are pointedly intertwined with one’s sense of self-worth and meaning. Her passion for continuing to work in old age encourages me to reflect on what the concept of work means for me and how this meaning may evolve as I age. A life lesson I learned from Nanay Aca is the importance of nurturing family relationships throughout the life course. Throughout my time in the field she shared, and I also witnessed, the deep bond between herself and her adult children, grandchildren, and great-grandchildren and the importance of continually nurturing the growth of such relationships through respect, care, and love. A life lesson I took away from my time with Nanay Pipay is the importance to always have room in the day to smile, laugh, and play. It was clear she knew how to have fun and enjoy the moment. She was always the first to sing karaoke or dance (when local folk music was playing); during our informal gatherings throughout the research process, she encouraged others to smile, laugh, and play. These reflections are a reminder that engagement in research (especially PAR-informed qualitative research) can lead to personal insight and life lessons from the participants and for the researcher to be open to such wisdom.

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Appendices

Appendix A: Permission from the International Journal of Disaster Risk Reduction to Reprint Seniors’ Disaster Resilience: A Scoping Review of the Literature

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Appendix B: Permission from Oxford University Press to Reprint, Chapter Two:

Literature Review, in Rebuilding Lives Post-Disaster: Innovative Community Practices for Sustainable Development

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Crystal Kwan
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Thank you very much Julie for forwarding the request - I really appreciate it!

Cheers,
Crystal

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Crystal – thank you for the inquiry, and thanks in advance for your contribution to Julie Drolet’s book – we are looking forward to seeing it come together!

If I understand correctly, you are seeking to incorporate portions of a chapter in the Drolet book into your dissertation? Or the entirety of chapter two of the book? Either way, permission will not be a problem, but if it is the entire chapter you intend to use, I will need to record this formally with our rights team so that they track the availability of the chapter. If portions thereof – this email can suffice as permission.

Cheers,
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https://outlook.office.com/owa/?realm=ucalgary.ca&exsvurl=1&ll-cc=1033&module=0
Appendix C: Permission from Cogent Social Sciences to Reprint Old Age Poverty: A Scoping Review of the Literature

Request to include manuscript in PhD dissertation OASS_1478479
#TrackingId:1291934

OASS-production@journals.tandf.co.uk
Fri 2018-06-22 1:50 AM
To: CrystalYeeGitKwan@hotmail.com <CrystalYeeGitKwan@hotmail.com>

Dear Crystal,

Thanks for your patience.

Please note that you have to include an acknowledgement of original source of the paper - a full citation of Cogent publication - in your dissertation.

I hope this helps.

Regards,
Aiswarriya
Cogent Social Sciences

Hi Aiswarriya,

I have an additional request in regards to the manuscript.

I am requesting permission to include a manuscript (in its entirety) that I co-authored with Dr. Christine A. Walsh titled “Old Age Poverty: A Scoping Review of the Literature,” in my PhD Dissertation.

May you please confirm (by responding to this email or redirect me to an alternate way of gaining permission) that permission is provided from you to:

include the above article in my dissertation,
submit the article as part of my dissertation to the University of Calgary Thesis Vault (http://theses.ucalgary.ca), and
allow the Library and Archives Canada permission to reproduce, communicate to the public on the Internet, loan, distribute, or sell copies of my dissertation, among other things, as I would be signing a non-exclusive license (this step is recommended by the Faculty of Graduate Studies at the University of Calgary, to make our thesis more accessible to the public).

The title of my dissertation is: Older People’s Resilience in the Context of Climate-Disasters: A Single Instrumental Case Study of Older Women in Poverty who are Widowed, Head of Household, and Living in a Disaster-Affected Community in the Philippines.

Thank you in advance for considering my request. Please do not hesitate to contact me should you require further details.
Appendix D: Permission from Co-author Dr. Christine A. Walsh to Include Seniors’ Disaster Resilience: A Scoping Review of the literature

4/4/2018

Mail - cygkwang@ucalgary.ca

Re: Request: Permission to include our manuscripts in my dissertation

Crystal Kwan
Tue 2018-04-03 7:05 PM
Sent Items
To: Christine Walsh <cwalsh@ucalgary.ca>

Great, thanks Christine!

From: Christine Walsh
Sent: April 3, 2018 6:33:59 AM
To: Crystal Kwan
Subject: Re: Request: Permission to include our manuscripts in my dissertation

You have my permission to include the manuscripts as noted above in your dissertation as described. Christine Walsh

Get Outlook for iOS

From: Crystal Kwan
Sent: Tuesday, April 3, 2018 12:32:29 AM
To: Christine Walsh
Subject: Request: Permission to include our manuscripts in my dissertation

Dear Christine Walsh,

I am preparing my dissertation document and require your permission to include our manuscripts listed below, which are integrated in Chapter 2 and 3:


In addition to allowing me to include these manuscripts in my dissertation, you will also be agreeing to allow me to submit the manuscripts with the dissertation to the University of Calgary’s Thesis Vault (http://theses.ucalgary.ca), as required by the Faculty of Graduate Studies. I will also be allowing the Library and Archives of Canada permission to reproduce, communicate to the public on the Internet, loan, distribute, or sell copies of my dissertation, among other things, by signing a non-exclusive license. This step is recommended by the Faculty of Graduate Studies at the University of Calgary, to make our thesis more accessible to the public.

The title of my dissertation is: Older People’s Resilience in the Context of Climate-Disasters: A Single Instrumental Case Study of Older Women in Poverty who are Widowed, Head of Household, and Living in a Disaster-Affected Community in the Philippines.

Please respond to this email with your permission by May 1st, 2018.

Thank you!

https://outlook.office.com/owa/?realm=ucalgary.ca&exsvurl=1&ll-cc=1033&modurl=0
Appendix E: Permission from Co-author Dr. Julie Drolet to include Chapter Two:

Literature Review

Re: Request: Permission to include our book chapter in my dissertation

Julie Drolet
Mon 2018-04-02 10:35 PM
to: Crystal Kwan <cygkwan@ucalgary.ca>

Hi Crystal,
You certainly have my permission, and I think we will need permission from the publisher. I can contact our person at OUP for some guidance.
Thanks,
Julie

Dr. Julie Drolet
Associate Professor
Faculty of Social Work, Central and Northern Alberta Region
University of Calgary
Enterprise Square
3-250, 10230 Jasper Avenue
Edmonton, AB
T5J 4P6
Tel. (780) 492-1594
Fax. (780) 492-5774
jdrolet@ucalgary.ca

From: Crystal Kwan
Sent: April 2, 2018 10:33:20 PM
To: Julie Drolet
Subject: Request: Permission to include our book chapter in my dissertation

Dear Julie Drolet,

I am preparing my dissertation document and require your permission to include our book chapter listed below, which is integrated in Chapter 2:


In addition to allowing me to include these manuscripts in my dissertation, you will also be agreeing to allow me to submit the manuscripts with the dissertation to the University of Calgary’s Thesis Vault (http://theses.ucalgary.ca), as required by the Faculty of Graduate Studies. I will also be allowing the Library and Archives of Canada permission to reproduce, communicate to the public on the Internet, loan, distribute, or sell copies of my dissertation, among other things, by signing a non-exclusive license. This step is recommended by the Faculty of Graduate Studies at the University of Calgary, to make our thesis more accessible to the public.

The title of my dissertation is: Older People’s Resilience in the Context of Climate-Disasters: A Single Instrumental Case Study of Older Women in Poverty who are Widowed, Head of Household, and Living in a

https://outlook.office.com/owa/?realm=ucalgary.ca&exsvurl=1&il-cc=1033&modurl=0
Table 1. Descriptive and Methodological Characteristics of the Studies

Table 1

*Descriptive and Methodological Characteristics of the Studies*

<table>
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<tr>
<th>Author(s)</th>
<th>Location</th>
<th>Disaster(s)</th>
<th>Methodology</th>
<th>Sample Size; Age</th>
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<td>Acierno et al., 2006</td>
<td>United States</td>
<td>2004 Florida Hurricanes</td>
<td>Quantitative</td>
<td>(N=1130) Older Adults (60+); (N=413) Younger Adults (18-59)</td>
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<td>Disasters in general</td>
<td>Quantitative</td>
<td>(N=1304) Older Adults (50+)</td>
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<td>Bei et al., 2013</td>
<td>Australia</td>
<td>2010-2011 floods in rural Victoria and New South Wales</td>
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<td>(N=274) Older Adults (60+)</td>
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<td>United States</td>
<td>Disasters in general</td>
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<td>(N=100) (65+)</td>
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<td>United States</td>
<td>2005 Hurricanes Katrina and Rita</td>
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<td>(N=20) Middle-aged adults (45-64); (N=20) Older adults (65-89); (N=26) Oldest-old (90+)</td>
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<td>United States</td>
<td>2005 Hurricanes Katrina and Rita</td>
<td>Quantitative</td>
<td>(N=13) Younger adults (26-44); (N=17) Middle-aged adults (47-64); (N=19) Older adults (65-89); (N=23) Oldest-old (90+)</td>
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<td>2005 Hurricanes Katrina and Rita</td>
<td>Quantitative</td>
<td>(N=219) (M age=60.2 years, SD=18.8 years, age range: 19-91 years)</td>
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<td>Author(s)</td>
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<td>2011 Tohoku earthquake and tsunami</td>
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<td>Kaluarachchi, 2013</td>
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<td>Extreme weather events (in general) in England</td>
<td>Quantitative</td>
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<td>1998 Hurricane Mitch</td>
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Adams et al., 2011 | United States | Hurricane Katrina and flooding in New Orleans | Qualitative | N=105 Middle-aged (40-64); N=58 Older adults (65+)
Ardalan et al., 2010 | Iran | 2003 Bam earthquake | Qualitative | N=56 (65+)
Ashida et al., 2016 | United States | Disasters in general | Qualitative | N=40 (55+)
Bockie & Miller, 2016 | Australia | 2011 and 2013 floods in Queensland | Qualitative | N=10 (mean age=73)
Claver et al., 2013 | United States | 2005 Hurricanes Katrina and Rita | Qualitative | N=13 (administrators and providers of elderly veteran nursing home residents)
Dostal, 2015 | United States | Disasters in general | Qualitative | N=56 (age range: 64-105)
Henderson et al., 2009 | United States | 2005 Hurricane Katrina | Qualitative | N=122 (60+)
Hrostowski & Rehner, 2012 | United States | 2005 Hurricane Katrina | Qualitative | N=18 (65+)
Stanko et al., 2015 | United States | 2005 Hurricanes Katrina and Rita | Qualitative | N=20 Middle-aged adults (45-64); N=20 Older adults (65-89); N=26 Oldest-old (90+)
Tuohy & Stephens, 2011 | New Zealand | Disasters in general | Qualitative | N=16 (65+)
Tuohy et al., 2014 | New Zealand | 2010-2012 Canterbury earthquakes | Qualitative | N=10 (65+)
Lin et al., 2002 | Taiwan | 1999 Chi Chi earthquake | Mixed | N=368 (65+)

Notes. *Stanko et al. (2015) used the same sample and data from Cherry and colleagues' (2010) study
Table 2. Phase(s) of the Disaster Management Cycle and Individual Factors and Processes Examined

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<th>Gender (n=13)</th>
<th>Income / Financial Capacity (n=13)</th>
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Note. Bockie and Miller (2016) focused on all four phases of the disaster management cycle.
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*Note. Bockie and Miller (2016) focused on all four phases of the disaster management cycle*
### Table 4. Mitigation and Preparedness Studies: Individual Level Factors and Processes

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<td>Loke et al., 2012</td>
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*Note. Bockie and Miller (2016) focused on all four phases of the disaster management cycle.*
Table 5. Mitigation and Preparedness Studies: Environmental Level Factors and Processes

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<td>Al-rousan et al., 2014</td>
<td>Critical care systems (lack of awareness among public health providers regarding disaster preparedness)</td>
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<td>Socio-cultural norms</td>
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Bockie & Miller, 2016*

- Social supports (neighbours and family)
- Inclusive and community-based risk communication processes
- Prior experiences

*Note.* Bockie and Miller (2016) focused on all four phases of the disaster management cycle
Table 6. Response and Recovery Studies: Individual Level Factors and Processes

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<td>▪ Personal characteristics and behaviours (adaptive coping strategies, such as acceptance, positive reframing, and humour)</td>
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*Note. Bockie and Miller (2016) focused on all four phases of the disaster management cycle*
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<td>• Religious participation (Buddhist)</td>
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<td></td>
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</tr>
<tr>
<td>Adams et al., 2011</td>
<td>• Disrupted public health systems</td>
<td></td>
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<tr>
<td>Ardalan et al., 2010</td>
<td>• Culturally inappropriate relief and response</td>
<td></td>
<td></td>
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<tr>
<td>Henderson et al., 2009</td>
<td>• Spirituality (use of active spiritual coping strategies) • Not age-friendly evacuation shelters • Disrupted public infrastructures (e.g., transportation, electricity)</td>
<td></td>
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<tr>
<td>Hrostowski &amp; Rehner, 2012</td>
<td>• Social support</td>
<td></td>
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<tr>
<td>Stanko et al., 2015</td>
<td>• Religious participation • Social support</td>
<td></td>
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<tr>
<td>Lin et al., 2002</td>
<td>• Social support</td>
<td></td>
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<td>Tuohy et al., 2014</td>
<td>• Social support</td>
<td></td>
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</tr>
<tr>
<td>Bockie &amp; Miller, 2016*</td>
<td>• Social support</td>
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</table>

*Note. Bockie and Miller (2016) focused on all four phases of the disaster management cycle*
Table 8. Descriptive Characteristics of Studies

<table>
<thead>
<tr>
<th>Location</th>
<th>Author(s); Year</th>
<th>Methodology</th>
<th>Sample Size; Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Country</td>
<td>Australia; Callander, Schofield, &amp; Shrestha, 2012</td>
<td>Quantitative (cross-sectional survey using the Survey of Disability, Ageing, and Carers (SDAC))</td>
<td>N=2,219,000 (65+)</td>
</tr>
<tr>
<td>Studies (n=35)</td>
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</tr>
<tr>
<td>Belgium</td>
<td>Peeters, Debels, &amp; Verpoorten, 2013</td>
<td>Quantitative (cross-sectional survey using the Belgian Labour Market and Social Protection Data warehouse)</td>
<td>N=9,871 (65+)</td>
</tr>
<tr>
<td>Belgium</td>
<td>Peeters &amp; Wouter, 2015</td>
<td>Quantitative (cross-sectional survey using the Belgian Data Warehouse Labour Market and Social Protection)</td>
<td>N=9,871 (65+)</td>
</tr>
<tr>
<td>Britain</td>
<td>Berthoud, Blekesaune, &amp; Hancock, 2009</td>
<td>Quantitative (cross-sectional survey using the British Household Panel Survey)</td>
<td>N=3,726 (50+)</td>
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<tr>
<td>Canada</td>
<td>Kaida &amp; Boyd, 2011</td>
<td>Quantitative (cross-sectional survey using the Canadian Census of Population)</td>
<td>N= 72,925 (70+)</td>
</tr>
<tr>
<td>Country</td>
<td>Authors, Year</td>
<td>Methodology</td>
<td>Sample Size</td>
</tr>
<tr>
<td>--------------</td>
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<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>Canada</td>
<td>MacDonald, Andrews, &amp; Brown, 2010</td>
<td>Quantitative (cross-sectional survey using the Canadian Census, Survey of Household Spending (SHS), Labour Force Survey (LFS), Participation and Activity Limitation Survey (PALS))</td>
<td>N=authors did not report the sample size (65+)</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Brenes-Camacho, 2011</td>
<td>Quantitative (cross-sectional survey using the Costa Rican Study on Longevity and Healthy Aging)</td>
<td>N=1,556 (60+)</td>
</tr>
<tr>
<td>India</td>
<td>Srivastava &amp; Mohanty, 2012</td>
<td>Quantitative (cross-sectional survey using the National Sample Survey)</td>
<td>N=62,000,000 (60+)</td>
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<tr>
<td>Kosovo</td>
<td>Jerliu, Toci, Burazeri, Ramandani, &amp; Brand, 2012</td>
<td>Quantitative (cross-sectional survey using own survey)</td>
<td>N=1,890 (65+)</td>
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<tr>
<td>Peru</td>
<td>Olivera &amp; Tournier, 2016</td>
<td>Quantitative (cross-sectional survey using the Encuesta de Dalud y Bienestar del Adulto Mayor (ESBAM) survey)</td>
<td>N=4,151 (65+)</td>
</tr>
<tr>
<td>South Korea</td>
<td>Chung &amp; Park, 2008</td>
<td>Quantitative (cross-sectional survey using own survey)</td>
<td>N=220 (65+)</td>
</tr>
<tr>
<td>South Korea</td>
<td>Jeon, Noguchi, Kwon, Ito, &amp; Tamiya, 2016</td>
<td>Quantitative (cross-sectional survey using the Korea Welfare Panel Study)</td>
<td>N=40,365 (65+)</td>
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<td>Country</td>
<td>Authors</td>
<td>Methodology</td>
<td>Sample Size</td>
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<tr>
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<tr>
<td>South Korea</td>
<td>Kim &amp; Cook, 2011</td>
<td>Quantitative (cross-sectional survey using the Korean Longitudinal Study of Ageing)</td>
<td>N=3,981 (65+)</td>
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<tr>
<td>South Korea</td>
<td>Lee &amp; Lee, 2009</td>
<td>Quantitative (cross-sectional survey using the Korean Longitudinal Study of Ageing)</td>
<td>N=4,155 (65+)</td>
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<tr>
<td>South Korea</td>
<td>Yang, 2011</td>
<td>Quantitative (cross-sectional survey using the Korean Labour and Income Panel Study)</td>
<td>N=580 (50+)</td>
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<tr>
<td>Sweden</td>
<td>Gustafsson, Johansson, &amp; Palmer, 2009</td>
<td>Quantitative (cross-sectional survey using the Swedish Household Income Survey aka HINK/HEK)</td>
<td>N=varies between 10,000 to 19,000 (65+)</td>
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<tr>
<td>United States (US)</td>
<td>Butrica, Murphy, &amp; Zedlewski, 2009</td>
<td>Quantitative (cross-sectional survey using the Health and Retirement Survey)</td>
<td>N=7,883 (65+)</td>
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<tr>
<td>US</td>
<td>Chen et al., 2016</td>
<td>Quantitative (cross-sectional survey using the National Social Life, Health, and Aging Project (NSHAP))</td>
<td>N= 780 and 524b (55+)</td>
</tr>
<tr>
<td>US</td>
<td>Chi &amp; Tucker-Seeley, 2013</td>
<td>Quantitative (cross-sectional survey using the Health and Retirement Study)</td>
<td>N=1,359 (50+)</td>
</tr>
<tr>
<td>US</td>
<td>Hutto, Waldfogel, Kaushal, &amp; Garfinkel, 2011</td>
<td>Quantitative (cross-sectional survey using the Consumer Expenditure Survey CEX)</td>
<td>N=55,897 (65+)</td>
</tr>
<tr>
<td>US</td>
<td>Johnson, Schoeni, &amp; Rogowski, 2011</td>
<td>Quantitative (cross-sectional survey using the Panel Study of Income Dynamics (PSID))</td>
<td>2,730 (55+)</td>
</tr>
<tr>
<td>US</td>
<td>Kim &amp; Miller, 2015</td>
<td>Quantitative (cross-sectional survey using the Health Retirement Study)</td>
<td>3,770 (65+)</td>
</tr>
<tr>
<td>US</td>
<td>Kim, Richardson, Park &amp; Park, 2013</td>
<td>Quantitative (cross-sectional survey using the Health and Retirement Study)</td>
<td>2,614 (65+)</td>
</tr>
<tr>
<td>US</td>
<td>Kim &amp; Richardson, 2014</td>
<td>Quantitative (cross-sectional survey using the Medical Expenditure Panel Survey)</td>
<td>1,773 (65+)</td>
</tr>
<tr>
<td>US</td>
<td>Lee, Hong, &amp; Harm, 2014</td>
<td>Quantitative (cross-sectional survey using the American Community Survey)</td>
<td>3,820 (65+)</td>
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<tr>
<td>US</td>
<td>Lee &amp; Yoon, 2011</td>
<td>Quantitative (cross-sectional survey using own survey)</td>
<td>206 (65+)</td>
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<tr>
<td>US</td>
<td>Louie &amp; Ward, 2011</td>
<td>Quantitative (cross-sectional survey using the Third National Health and Nutrition Examination Survey)</td>
<td>5,556 (60+)</td>
</tr>
<tr>
<td>US</td>
<td>Nicholas &amp; Wiseman, 2009</td>
<td>Quantitative (cross-sectional survey using the Current Population Survey's Annual Social and Economic Supplement and other social security administrative files)</td>
<td>varies between 11,880 to 13,957c (65+)</td>
</tr>
<tr>
<td>Country</td>
<td>Authors</td>
<td>Study Design</td>
<td>Sample Size</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------</td>
<td>--------------------------------------------------</td>
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</tr>
<tr>
<td>US</td>
<td>Park, Han, Kim, &amp; Dunkle, 2017</td>
<td>Quantitative (cross-sectional survey using the Health Retirement Study)</td>
<td>N=2,666 (75+)</td>
</tr>
<tr>
<td>US</td>
<td>Phua, McNally, &amp; Park, 2007</td>
<td>Quantitative (cross-sectional survey using the US Census)</td>
<td>N=49,091 (60+)</td>
</tr>
<tr>
<td>US</td>
<td>Rank &amp; Williams, 2010</td>
<td>Quantitative (cross-sectional survey using the Panel Study of Income Dynamics)</td>
<td>N=authors did not report the sample size (60+)</td>
</tr>
<tr>
<td>US</td>
<td>Whiltshire, Roberts, Brown, &amp; Sarto, 2009</td>
<td>Quantitative (Household Component of the Community Tracking Study)</td>
<td>N=12,784 (55+)</td>
</tr>
<tr>
<td>US</td>
<td>Wight, Cummings, Miller-Martinez, Karlamangla, Seeman &amp; Aneshensel, 2008</td>
<td>Quantitative (cross-sectional survey using the Asset and Health Dynamics Among the Oldest Old (AHEAD) and US Census)</td>
<td>N=3,443 (70+)</td>
</tr>
<tr>
<td>Region</td>
<td>Authors</td>
<td>Methodology</td>
<td>Sample Size</td>
</tr>
<tr>
<td>-------------------------------</td>
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<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>South Korea and Taiwan</td>
<td>Choi &amp; Kim, 2010</td>
<td>Quantitative (cross sectional survey using the Luxembourg Income Survey for Taiwan and the National Survey of Household Income and Expenditure and Household Income and Expenditure Survey for South Korea)</td>
<td>(N=\text{authors did not report sample size (65+)})</td>
</tr>
<tr>
<td>Europe (12 countries)</td>
<td>Adena &amp; Myck, 2014</td>
<td>Quantitative (cross-sectional survey using the Health, Ageing and Retirement in Europe (SHARE))</td>
<td>(N=\text{varies from 564 to 2,045 dependent on the country (50+)d})</td>
</tr>
<tr>
<td>Europe (10 European Union countries)</td>
<td>DeWilde &amp; Raeymaeders, 2008</td>
<td>Quantitative (cross-sectional survey using the European Community Household Panel (ECHP))</td>
<td>(N=16,508 (65+))</td>
</tr>
<tr>
<td>Europe (15 countries)</td>
<td>van Vliet, Been, Caminada, &amp; Goudswaard, 2012</td>
<td>Quantitative (cross-sectional survey using the OECD Social Expenditure Database)</td>
<td>(N=\text{authors did not report sample sizes (65+)})</td>
</tr>
<tr>
<td>Sub-Saharan Africa (15 countries)</td>
<td>Kakwani &amp; Subbarao, 2007</td>
<td>Quantitative (cross-sectional survey using the Household Survey Information from World Bank)</td>
<td>(N=\text{3.5 to 7 percent of population depending on country (60+)}^{c})</td>
</tr>
<tr>
<td>22 Countries (various regions)</td>
<td>Tai &amp; Treas, 2009</td>
<td>Quantitative (cross-sectional survey using the Luxembourg Income Survey)</td>
<td>(N=83,244 (65+))</td>
</tr>
<tr>
<td>Studies at the Local Level ( (n=14) )</td>
<td>Cambodia (rural regions)</td>
<td>Zimmer, 2008</td>
<td>Quantitative (cross-sectional survey using the Survey of the Elderly)</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>China (rural regions)</td>
<td>Wang, Shang, &amp; Xu, 2011</td>
<td>Quantitative (cross-sectional survey using the China Health and Nutrition Survey)</td>
<td>2,344 (60+)</td>
</tr>
<tr>
<td>Canada (Metro Vancouver)</td>
<td>Engel, Chudyk, Ashe, McKay, Whitehurst, &amp; Bryan, 2016</td>
<td>Quantitative (cross-sectional survey using the Walk the Talk Study)</td>
<td>160 (65+)</td>
</tr>
<tr>
<td>Canada (city of St. John)</td>
<td>Ryser &amp; Halseth, 2011a</td>
<td>Mixed-methods (cross-sectional using own survey and focus groups)</td>
<td>277 (65+)</td>
</tr>
<tr>
<td>Canada (city of St. John)</td>
<td>Ryser &amp; Halseth, 2011b</td>
<td>Mixed-methods (cross-sectional using own survey and focus groups)</td>
<td>277 (65+)</td>
</tr>
<tr>
<td>Lebanon (specific communities)</td>
<td>Chaaya, Sibai, Tabbal, Chemaitelly, Roueiheb, &amp; Slim, 2010</td>
<td>Quantitative (cross-sectional survey using the Urban Health Study)</td>
<td>320 (60+)</td>
</tr>
<tr>
<td>Lebanon (specific communities)</td>
<td>Hazzouri, Sibai, Chaaya, Mahfoud, &amp; Yount, 2011</td>
<td>Quantitative (cross-sectional survey using the Urban Health Study)</td>
<td>740 (60+)</td>
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<tr>
<td>Nigeria (town of Yenagoa)</td>
<td>Adeyanju, Onasoga, &amp; Edoni, 2015</td>
<td>Qualitative (content analysis using interviews)</td>
<td>13 (60+)</td>
</tr>
<tr>
<td>Thailand (province of Chai Nat)</td>
<td>Gray, Rukumnuaykit, Kittisuksathit, &amp; Thongthai, 2008</td>
<td>Quantitative (cross-sectional survey using their own survey)</td>
<td>1,036 (55+)</td>
</tr>
<tr>
<td>Location</td>
<td>Author(s)</td>
<td>Methodology</td>
<td>Sample Size</td>
</tr>
<tr>
<td>------------------</td>
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<tr>
<td>US (state of Wisconsin)</td>
<td>Chung, Issacs, &amp; Smeeding, 2013</td>
<td>Quantitative (cross-sectional survey using the American Community Survey and Wisconsin Administrative data)</td>
<td>N=approximately 60,000 each year (65+)&lt;sup&gt;h&lt;/sup&gt;</td>
</tr>
<tr>
<td>US (city of Detroit)</td>
<td>Onolehemhen, 2009</td>
<td>Qualitative (phenomenology using interviews)</td>
<td>N=15 (60+)</td>
</tr>
<tr>
<td>US (state of California)</td>
<td>Wallace, Padilla-Frausto, &amp; Smith, 2013</td>
<td>Quantitative (cross-sectional survey using the American Community Survey)</td>
<td>N=authors did not report sample size (65+)</td>
</tr>
</tbody>
</table>

*Note.* <sup>a</sup>Study used annual surveys from 1991 to 2004 and from 1975 to 1980. <sup>b</sup>Study used surveys from two waves of data: 2005-2006 and 2010-2011. <sup>c</sup>Study used annual surveys from 2002-2005. <sup>d</sup>Study reported a different sample size for every country. <sup>e</sup>Study did not report sample size for the country but rather a percentage range. <sup>f</sup>This study is the same as Ryser and Halseth 2011b, and reports on both quantitative and qualitative findings on one dimension of the study. <sup>g</sup>This study is the same as Ryser and Halseth 2011a, and reports on only the quantitative findings on another dimension of the study. <sup>h</sup>Study used annual surveys from 2008-2010.
<table>
<thead>
<tr>
<th>Author(s); Year</th>
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<th>Assets/wealth</th>
<th>Self-perceived poverty</th>
<th>Other</th>
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<td>Brenes-Camacho, 2011</td>
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<td>Chi &amp; Tucker-Seeley, 2013</td>
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<td>Jeon et al., 2016</td>
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<tr>
<td>Johnson et al., 2011</td>
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<td>Kaida &amp; Boyd, 2011</td>
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<td>Kakwani &amp; Subbarao, 2007</td>
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<td>Kietzman et al., 2012</td>
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<td>Kim &amp; Miller, 2015</td>
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<td>Lee &amp; Lee, 2009</td>
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<td>x</td>
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<td>Long &amp; Pfua, 2009</td>
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<td>Plow et al., 2011</td>
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<td>Ryser &amp; Halseth, 2011a</td>
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Table 9. Poverty Measures in Studies
<table>
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<td>Ryser &amp; Halseth, 2011b</td>
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<td>Tai &amp; Treas, 2009</td>
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<td>van Vliet et al., 2012</td>
<td>x</td>
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<tr>
<td>Wallace et al., 2013</td>
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<td>Yang, 2011</td>
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<tr>
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<td>Hazzouri et al., 2011</td>
<td>x</td>
</tr>
<tr>
<td>Zimmer, 2008</td>
<td>x</td>
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<tr>
<td>Adena &amp; Myck, 2014</td>
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<td>DeWilde &amp; Raeymaeders, 2008</td>
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<td>Hutto et al., 2011</td>
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<tr>
<td>Kim &amp; Cook, 2011</td>
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Hazzouri et al., 2011  x
Jeon et al., 2016  x
Kim & Frank-Miller, 2015  x
Lee & Yoon, 2011  x
Olivera & Tournier, 2016  x
Park et al., 2017  x
Zimmer, 2008  x
Butrica et al., 2009  x
Callander et al., 2012  x
Chung et al., 2013  x
Gustafsson et al., 2009  x
Hutto et al., 2011  x
Jerliu et al., 2012  x
Kaida & Boyd, 2011  x
MacDonald et al., 2010  x
Nicholas & Wiseman, 2009  x
Peeters et al., 2013  x
Rank & Williams, 2010  x
Srivastava & Mohanty, 2012  x
Wallace et al., 2013  x
Wang et al., 2011  x
Appendix G: Permission from The Qualitative Report to Reprint Community-Based Participatory Research: A Narrative Review of the Literature

RE: Request: Permission to include my article from TQR 23(2) in my dissertation

Ronald Chenail <ron@nova.edu>

Mon 2018-04-02 12:55 PM

Cc: Crystal Kwan <crystalyeegitkwan@hotmail.com>

Hi!

Please find my replies below.

Thanks,

Ron

Ronald J. Chenail, Ph.D.
Editor-in-Chief, The Qualitative Report
College of Arts, Humanities, and Social Sciences
Nova Southeastern University
3301 College Avenue
Fort Lauderdale, FL 33314-7796 USA
Phone: 954.262.3019 | Fax: 954.262.3896
Email: ron@nsu.nova.edu | Web: http://tqr.nova.edu/

From: Crystal Kwan <crystalyeegitkwan@hotmail.com>
Sent: Monday, April 2, 2018 4:38 AM
To: Ronald Chenail <ron@nova.edu>
Subject: Request: Permission to include my article from TQR 23(2) in my dissertation

Dear Ronald,

I am requesting permission to include the following article, titled “Ethical issues in conducting community-based participatory research: A narrative review of the literature,” in my dissertation. This article was published in 2018, in Volume 23, as issue 2 (pages 259-273) in The Qualitative Report (TQR).

Would you please confirm (by responding to this email or redirect me to an alternate way of gaining permission) that permission is provided from you to:

1. include the above article in my dissertation,
2. submit the article as part of my dissertation to the University of Calgary Thesis Vault (http://theses.ucalgary.ca), and

https://outlook.live.com/owa/?path=/mail/inbox/rp
Appendix H: Informed Consent Process and Script

Informed Consent Process and Script

Consent Process for Primary Participants:

First, my informed consent process will include a one-to-one meeting with potential participants where we will review and discuss the elements which would typically be in a consent form (e.g., purpose of study, what they will be asked to do, what type of personal information will be collected, risks and benefits if they participate, and what happens to the info they provide). Further, the meeting would involve the participants to recall/explain what has been discussed and any additional questions, issues, concerns, etc. Following the one-to-one meeting, there will be a general orientation for participants, in which the group has the opportunity to further discuss and ask questions about the study. Further, participants will be informed that their decision to participate, not participate or withdraw from the study will not impact their relationship (if existing) with HelpAge COSE. Participants will be informed during the consent process the right to withdraw from the study, at any time without any penalties. Once this is done, participants will be asked to provide explicit oral consent, which will be audio-recorded. Further, the primary participants will be provided with a local ethics contact (Emily Beridico, Executive Director of HelpAge COSE) and informed that Emily can be contacted at any time of the research process they have any concerns about regarding the project. Emily's contact information will be printed out in a small business card format.

Consent Process for Persons Photographed and/or Video and Audio-Recorded:

After informed consent has been provided by the primary participants. The researcher will facilitate at least two ethical considerations workshops with the primary participants, as they will be the ones who obtain informed consent from persons they photograph and/or video/audio-record. These workshops will focus on the ethics surrounding photo/video/audio-taking of other people. This session will also include guidance/instructions on how to obtain explicit oral consent from people. At these workshops, participants will also be shown how to take photos/videos that are not identifiable (e.g., taking an image of a person not showing their full face or taking a photo or video of places or objects). Primary participants will seek out explicit oral consent from persons they photograph and/or video/audio-record. They will do so by following the script and using their camera, which has audio function, to record the consent. Participants in the workshop will also have opportunities to practice with each other and role play the explicit oral consent process to prepare them when they go out in the community to complete their photo/video assignments. In addition, the primary participants will be provided with business cards with the local ethics contact's information (Emily Beridico) to distribute to
their participants and inform them that they may contact Emily if they have any concerns about the project.

**Informed Consent Script**

**Name of Researchers, Faculty:**
Hello, my name is Crystal Kwan and I am a PhD student with the Faculty of Social Work at the University of Calgary, in Canada. My supervisor is Dr. Christine Walsh (Associate Professor, Faculty of Social Work, University of Calgary).

**Title of Project:** Growing old in the face of poverty and climate disasters: A case study exploring disaster resilience in the Philippines

This initial meeting is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. You will also have another opportunity to ask questions or seek out more information at our orientation meeting with other potential participants, which will occur at a later date. The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

**Purpose of the Study**

The purpose of this study is to understand what conditions (at the individual, family/community and structural/cultural) influence older people’s (specifically, older people living in poverty and in a disaster affected community) disaster resilience. Photovoice and Videovoice are research methods that will be used, where participants use cameras to take pictures and videos and discuss through one-on-one interviews and in a group, how their pictures and videos capture their perspectives, experiences and ideas about disaster resilience. In this way Photovoice and Videovoice positions the participants as co-researchers of the study. The data collected in this study will be used by me (the co-investigator) for my PhD dissertation. The data collected will also be used to develop a case report (both in a written and video format), and submitted to HelpAge COSE in order to inform programming. The data collected will also be used by the group of participants to decide how they will like to disseminate the findings of the study locally. Such activities may include an art show or a public forum, for example.

**What Will I Be Asked to Do?**

If you choose to be a part of this study, you will be asked to participate, over the course of approximately 5 months, in: i) an orientation session with the other participants, ii) at least two sessions focused on basic camera use and photo/video-taking training, iii) at least two ethical considerations workshop, iv) 3 to 4 one-on-one interviews (approximately 1.5 -2 hours), v) 4 focus groups (approximately 1.5-2 hours) and vi) a final feedback and dissemination session.

At the orientation session (which will last approximately 2 hours), we will review (again) the purpose of the research study, an explanation of the Photovoice and Videovoice research methods, and answer any questions you may have. Further, you will have a chance to meet the other participants (approximately 3 other older people living in the same community). This session will not be audio recorded.
At the basic camera use and photo/video-taking training sessions (which will each last approximately 2 hours), you will be given a digital camera and taught basic camera use and photo/video-taking. At these sessions you will also have the opportunity to practice with the other participants. These sessions will not be audio recorded.

At the ethical considerations workshops (which will last approximately 2 hours each) you will be asked to participate in group discussions about the ethics surrounding photo/video-taking of others and also of places. This session will not be audio recorded.

Prior to each individual interview, you will be asked to take pictures or videos that relate to the purpose of the study. At the one-on-one interviews the researcher will upload the pictures and videos on a laptop and you will be asked to share and discuss your photo and/or video images, brainstorm how you would like to present them to others, and provide feedback on the research process thus far. You will be asked to participate in a total of 3 to 4 interviews and each will be approximately 1.5 to 2 hours, and will be audio-recorded.

Once all the interviews have been completed, you will be asked to participate in focus group sessions, where you and the other participants will get to share and discuss your photo images and videos, brainstorm how you would like to present them to others, and provide feedback on the research process thus far. You will be asked to participate in a total of 4 focus group sessions and each will be approximately 1.5 to 2 hours, and will be audio-recorded.

At the end of the study, you will be asked to participate in the final feedback and dissemination session (which will last approximately 2 hours). At this session you will: i) be provided with a draft of the video case report(s) and asked to provide feedback; ii) asked if the researcher can use your Photovoice and Videovoice materials for educational/research purposes, for example a presentation at a conference; and iii) to participate in a dissemination activity of the findings of the study, that the group will be involved in deciding. This session will not be audio-recorded.

The interviews and focus groups will be audio-recorded and you must agree to this in order to participate. This will make sure we include all responses in the analysis. As well, phototaking, audio and video-recording will be required as part of participation in the study. You should also know that there is the possibility that photo, audio and video records (of yourself and of the people you take) will be ultimately available in outlets that the researchers cannot control (e.g., YouTube).

You may stop participating in the study at any time and you may withdraw any of your individual interview audio recordings, photo-images and video-footages before it is used for research purposes and the development of the case reports. However, after the case reports have been made publicly available, this condition is not possible. Further, the option to withdraw your contributions from the focus group sessions is not possible, however all identifying information will be removed from the focus group transcripts. If you quit it won’t affect any services you might receive with HelpAge COSE or any other agency.

What Type of Personal Information Will Be Collected?

Should you agree to participate in the study, you will be asked for background information, such as your age, gender, income and what community you are from. For the audio-recorded interviews and focus groups you will be asked to provide your first name and to share your experiences, perspectives and ideas about disaster resilience. For audio-recorded interviews and focus groups, your name will be removed from the interview transcript and replaced with a
number. After the final feedback and dissemination session, any identifying information will be deleted. The research team will keep the information you share confidential. In regards to your Photovoice and Videovoice materials, you will be asked if the researcher can use them for education and research purposes. You will select the photo images and/or videos you want to appear in the study. If you choose photographs or videos of yourself your anonymity or confidentiality cannot be maintained. You can choose to be anonymous by selecting pictures that do not disclose your personal identity. For full-faced video-recorded interviews, anonymity and confidentiality is not possible. Further, if you choose to select photos and videos of that identify other people, you will need to obtain informed consent (audio-recorded). During the ethical considerations workshop, the researcher will review this process with you (along with other ethical considerations in photo/video-taking).

**Are there Risks or Benefits if I Participate?**

Participating in this study will provide you with an opportunity to share your perspectives, experiences and ideas of disaster resilience. Although you may not benefit directly from the study, the information collected may help others in understanding disaster resilience among older adults. Service providers and decision makers, such as HelpAge COSE, will be provided with a summary of the findings, which could be used to help them inform programming.

By participating in this study, there is the possibility of feeling psychologically or emotionally stressed, as you will be asked to discuss your experiences with disasters and conditions that make you vulnerable (along with conditions that make you resilient). In the interviews and focus groups, you will be asked to share only as much as you are comfortable with. Your name will be removed from any transcripts and a generic identifier will be used to protect your identity.

There is also the potential of experiencing social risks (especially a loss of privacy). This applies to the focus group and research methods used (Photovoice and Videovoice). Due to the focus group format, your confidentiality and anonymity cannot be guaranteed. I (the co-investigator) will keep the information shared confidential, and will ask the group to do the same. As the research methods involve photos and videos, there is a potential risk of non-anonymity. Again, you will select the photo images and/or videos you want to appear in the study. Thus, if you choose photographs or videos of yourself your anonymity or confidentiality cannot be maintained. Further, if you choose photographs or videos of other people, their anonymity or confidentiality cannot be maintained. For example, for full-faced video-recorded interviews, anonymity and confidentiality is not possible. You can choose to be anonymous by selecting pictures that do not disclose your personal identity or that of other people.

Please note that, if intended reporting of photographed or videotaped images includes public display, the researchers will have no control over any future use by others who may copy the images and repost them in different formats or contexts, including online.

**What Happens to the Information I Provide?**

The audio-recordings of the interviews and focus groups will be transcribed and entered into a password-protected laptop, and then the recording will be deleted. The photo images and video-footage will be transferred into a password-protected computer, then the images and footages will be deleted. When the project is finished and I (the co-investigator) return to
Calgary, Canada, the electronic copies of the data will be stored on an external hard drive or memory stick in a locked office at the Faculty of Social Work for five years and then all electronic files will be deleted. Only my supervisor (in Calgary, Canada) and I will have access to this raw data.

The findings may be shared with decision makers, service providers, students, and the public through the case reports (in written and video format); articles and reports; public presentations at conferences, meetings and workshops.

To appreciate your participation in this research that spans across approximately 5 months, a cash payment of $100 will be provided to you. This cash payment will be paid out in five increments of $20, which will be provided after each month of your participation. You may withdraw from the study at any time, and you will still be entitled to the entire $100 compensation.

**Explicit Oral Consent**

Your explicit oral consent that is audio-recorded indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

I agree to participate in the interviews and grant permission for it to be audio-recorded (Yes or No)

I agree to participate in the focus groups and grant permission for it to be audio-recorded (Yes or No)

I grant permission for my photo-images and video-footage to be included in the final case reports (Yes or No)

I understand that if I select photo-images and video-footage of myself that anonymity and confidentiality cannot be maintained (Yes or No)

I refuse to participate in all aspects of the study (Yes or No)

Participant’s Name (please clearly state)

Date (please clearly state)

Researcher’s Name (please clearly state)

Date (please clearly state)

**Questions/Concerns**

If you have further questions concerning matters related to this research, please contact: Crystal Kwan, [local number provided here] or crystaluyeegitkwan@hotmail.com.
If you have any concerns about the way you’ve been treated as a participant, please contact Emily N. Beridico, Executive Director, HelpAge COSE, +63 (02) 374 6416 / 709 6567 or Emily.beridico@helpagecose.org [researcher to provide local ethics representative’s, Emily N. Beridico, contact info in small business card format]. You may request a copy of this consent process in a written format to keep for your records and reference if you wish.
### Appendix I: List of Documents Collected

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<tr>
<th>Document Type</th>
<th>Document Source</th>
<th>Title or Description</th>
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<tr>
<td>Agency report</td>
<td>COSE</td>
<td>This report documents supports and services provided to older persons post-Haiyan (specifically highlighting the cases of 14 older persons effected by the disaster).</td>
</tr>
<tr>
<td>Agency report</td>
<td>HAI &amp; COSE</td>
<td>The Philippine Social Pension at Four Years: Insights and Recommendations.</td>
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<td>Policy brief</td>
<td>HAI &amp; COSE</td>
<td>Policy brief based on full report detailed above.</td>
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<td>Programme agenda</td>
<td>HAI &amp; COSE</td>
<td>Programme agenda of the half-day conference on universal social pension in Manila.</td>
</tr>
<tr>
<td>Meeting agenda</td>
<td>COSE</td>
<td>Meeting agenda of a DRRM meeting in Tacloban City, in which I observed.</td>
</tr>
<tr>
<td>Agency magazine</td>
<td>COSE</td>
<td>A magazine titled O.P., (short for older persons) that is published quarterly. The magazine includes topics such as, stories from the field and discussion concerning policy issues (e.g., social pension).</td>
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<tr>
<td>Agency report</td>
<td>COSE</td>
<td>5 Keys to Successful Haiyan Emergency Response.</td>
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<tr>
<td>Agency report</td>
<td>COSE</td>
<td>Mobile Health Services for Older Persons.</td>
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<td>Agency report</td>
<td>COSE</td>
<td>Older Persons Policy and Legislative Agenda</td>
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<tr>
<td>Agency brochure</td>
<td>COSE</td>
<td>An agency brochure that explains the implications of the Expanded Seniors Citizens Act of 2010.</td>
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Appendix J: Individual Interview Guide One and Focus Group Guide One

Individual Interview Guide One

Analysis of Photovoice and Videovoice Materials
Tell me about your (3-4) pictures and/or (1-2) videos-
Probes:
- What do they say about Apitong?
- How do these pictures or videos improve our understanding of Apitong?

Selection of a photo or video to share with others in the following focus group
Tell me what key theme/message and which picture or video you would like to share with the other participants, and why-
Probes:
- Overall what do you hope the others will see in the picture/video selected today, and why?
- How would the other participants benefit from seeing the ideas, experiences and perspectives presented today?

Further probes
- Who are the key leaders in the community to help with issues in your community?
- Where do people gather and meet in your community?
- What are some of the community issues here in Apitong?
- What do you see as the primary needs of this community?
- What do you like most about Apitong?
- What would you want to improve the most about the community?

Focus Group Guide One

Tell the group about your photo/video
Probes:
- What does it say about Apitong?
- Why did you want to share this photo with the group?
- How does this picture/video improve our understanding of Apitong?

Discuss common or unique themes/messages
- What was similar between the photos/videos each of you took?
- What was unique about the photos/videos that each of you took?

Follow-up questions/probes from individual interviews
- What groups or organizations that serve the community? What do they do?
- What current projects are ongoing, which are helping to improve people’s lives?
- Do you feel that people in general in Apitong are willing to help each other?
- Do you feel that people in general in Apitong share the same values?
• Do you feel that you have an influence decisions that affect your community? Do you feel by working together with others you can influence decisions that affect your community?
Appendix K: Individual Interview Guide Two and Focus Group Two

Individual Interview Guide Two

Analysis of Photovoice and Videovoice Materials
Tell me about your (3-4) pictures and/or (1-2) videos-
Probes:
• Tell me about this photo or video. What is happening here?
• How do these pictures or videos relate to disaster resilience?

Tell me what themes/messages are in your pictures/videos-
Probes:
• Is there a specific theme/message?
• What is significant about the theme/message?

Selection of photo or video to share with others in focus groups
Tell me what key theme/messages and which picture or video you would like to share with the other participants, and why-
Probes:
• Overall what do you hope the others will see in the picture/video selected today, and why?
• How would the other participants benefit from seeing the ideas, experiences and perspectives presented today?

Further Probes
• What has helped you the most to build back, after disasters?
• Who has helped you the most in building back after disasters?
• What resources have been provided to you to build back after disasters?
• Let’s look inward: How do you think your own beliefs, attitudes, and personal characteristics have helped you to build back after disasters?

Focus Group Guide Two

Tell the group about your photo/video
Probes:
• What does it say about Apitong?
• Why did you want to share this photo with the group?
• How does this picture/video improve our understanding of Apitong?

Discuss common or unique themes/messages
• What was similar between the photos/videos each of you took?
• What was unique about the photos/videos that each of you took?

Follow-up questions/probes from individual interviews
• What organizations (NGOs) and or religious/faith communities have helped you to build back after disasters? In what ways have they helped you? What resources have they provided you with?
• What local community and volunteer groups have helped you to build back after disasters? In what ways have they helped you? What resources have they provided you with?
• How has your family helped you to build back after disasters? What resources have they provided you with?
• In what ways has the local government helped you to build back after disasters? In what ways have they helped you? What resources have they provided you with?
• What continues to be a worry of yours if a disaster were to occur again?
• What needs/issues remain unmet that would make you vulnerable if a disaster occurs?
• In what ways have you contributed to building back for others in your community including your family?
Appendix L: Individual Interview Guide Three

Background Information
Before we start please tell me a little bit about yourself (only in the initial interview, afterwards participant will only be asked to state their first name)

- Age, and the year you were born
- Marital Status
- Who you currently live with
- Describe the group you identify with in the Philippines: E.g., Waray people are a subgroup of Visayan people (other is Cebuanao)
- Your livelihood → employment status? And what is your gross monthly household income?
- Highest level of education obtained
- Subdivision/Quadrant of Apitong you live in

Early Childhood (0-12 years old)
Probes:
- Where were you were born?
- Who was the most influential person to you as a child?
- What was your favourite subject?
- What was your most significant moment(s) of your childhood?
- What was life like for you as a child? Did you have work already?

Teenager Years (12-18 years of age)
Probes:
- Where did you live out most of your teenage years?
- Who were the most important people in your life at this time?
- As a teenager what was life like for you?
- What was your significant moment(s) of these years?

Young Adulthood (19-30 years of age)
Probes:
- Where did you live out most of young adulthood years?
- Who were the most important people in your life at this time?
- What was your most significant moment of these years?

Mid Adulthood (31-50 years of age)
Probes:
- Where did you live during most of these years?
- What was your most significant moment of these years?
- Who were the most important people in your life at this time?

Older adulthood (50-75 years of age)
Probes:
- Where did you live during most of these years? In Apitong?
• What was your most significant moment of these years?
• Who are the most important people in your life at this time?
• What is the accomplishment in these years you are most proud of?

Future Elder years (75 years of age and beyond)

Probes:
• Who do you think will be the most important people in your life during this time?
• What are you dreams, hopes, and plans for these years?
• Do you expect to continue to work in these later years?
• What do you think life will look like in these later years?
Appendix M: Peer Interview Guide and Focus Group Guide Three

Peer Interview Guide
1. Ig-istorya imo kalugaringon/Pagistorya parte ha imo? (Tell me about yourself?)

2. Ig-istorya kun anu ngan hin-o an nabulig ha imo para makabangon ka pagkahuman maigo han kalamidad? (Who helped you to recover from the disaster and how did they help you?)

3. Ig-isorya kun anu it mga problema nga imo naatubrang o na-experience para makabangon ka o masulbad nimo pagkahuman han us aka kalamidad o disaster? (Tell me, what are the challenges you continue to face or experience after the disaster?)

Focus Group Guide Three: Debrief peer interviews

Tell the group about the experience of conducting a peer interview
Probes:
- How was the experience of conducting the peer interview?
- What did you like most about doing the interview?
- What was the most challenging about doing the interview?

Tell the group about what you learned from the interview
Probes:
- Who did you interview and why?
- Who helped them to bounce back after the disaster and how?
- What challenges do they continue to experience after the disaster?
- How is their experience/story similar to your own? How is it different?
Appendix N: Individual Interview Guide Four, Five, and Six

Individual Interview Guide Four: Health and Seniors’ Disaster Resilience

Exploring self-perceived health status
- How do you feel about your overall health? Please, explain.

Exploring Everyday health practices and challenges during disasters
Probes:
- What do you do every day that you believe contributes positively to your health (e.g., types of foods you eat, herbal remedy you take, how many times you eat, physical activities you do)?
- When a disaster hits how are these healthy habits/practices challenged?
- Have health problems occurred for you because of the disasters?
- Where do you access safe drinking water?
- When a disaster hits how is this challenged? Where do you go?
- When you get sick what do you usually do? Who and where do you go to, and why?

Access to and use of formal health care
Probes:
- Are there any formal/organized health activities you attend and participate in? How do you find out about this information? Which ones have you attended and why?
- Have you ever accessed services from the hospital here in Tacloban City? Why or why not?
- Where do you purchase medicine?

Information sharing
- How do you get your health information (e.g., word of mouth, leaflets, local OPA meetings)?

Individual Interview Guide Five: Housing, Land Tenure and Seniors’ Disaster Resilience

Land tenure conditions
Probes:
- Settlement history in Apitong: How did you come to settle on this land?
- Is the land you live on owned, leased, or other? Please explain.
- Have you had any troubles with availing assistance after the disaster, because of land tenure issues/conditions? If yes, please explain.

Housing
Probes:
- Tell me about your home.
  - What do you like most about it?
  - What aspects of your home do you wish to improve?
  - What is preventing you from making these improvements?
- How was your house affected from the disaster?
  - Who helped you to rebuild it? How did they help?
• Do you feel safe in your house if another disaster were to occur? Please explain.

**Housing links with livelihood**

Probes:

- What are all the livelihoods that are connected to your house (e.g., sari-sari store, canteen, small scale farming, pig raising)?
- How did the disaster affect these livelihoods?
- Who helped you rebuild these livelihoods and how?

**Individual Interview Guide Six: Relationships, Culture and Seniors’ Disaster Resilience**

**Household relations**

Probes:

- You, like the others, have mentioned how important it is to have your own house even as a senior. Please explain further.
- In your household what is everyone’s roles?
- In your household do you feel respected and the relationships are generally harmonious? Please explain your response.
- During and after the disaster how did these roles and responsibilities change?

**Community relations**

Probes:

- In Apitong, do you feel that you are generally treated with respect and cared for by the wider community (e.g., not just extended family, but neighbors, LGU officers, barangay officers, faith organizations)? Please explain your response.
- During and after the disaster, how has the community supported you? How have you supported the community?

**Examining gender roles, responsibilities and expectations**

Probes:

- What are typical expectations of a Nanay (grandmother) in a household?
- What are the typical expectations of a Tatay (grandfather) in a household?
- Do you believe your roles and responsibilities in this household are typical of what is expected of older women?
Appendix O: Focus Group Guide Four and Five

Focus Group Guide Four
Probes:
- Are they representative of what we individually and collectively discussed? Why or why not?
- What is missing in these key messages/themes presented?
- What information would you add and why?
- What information would you change and why?
- What information would you remove and why?
- Do you think these key messages/themes will enhance the community’s understanding of how to improve seniors’ resilience to disasters?

Focus Group Guide Five
Review and initial thoughts:
- Review the draft of the video with participants
- Remind participants that it is a draft, and we can change aspects of it

Repeat same questions in focus group four:
- Are they representative of what we individually and collectively discussed? Why or why not?
- What is missing in these key messages/themes presented?
- What information would you add and why?
- What information would you change and why?
- What information would you remove and why?
- Do you think these key messages/themes will enhance the community’s understanding of how to improve seniors’ resilience to disasters?

Additional Probes:
- Overall what do you hope others will see from this video and why?
- How would others benefit from seeing your ideas, experiences and perspectives?
Appendix P: Confidentiality Agreement with the Translator

Confidentiality Agreement for Intermediaries

Title of Project:
The co-investigator has reviewed with me, my ethical responsibilities concerning participants’ privacy and confidentiality of their information. I understand that I should not reveal the identities of the participants who have been recruited for the study. My signature below indicates I understand and agree to this.

[Signature]

Print Name

Date: April 1st, 2016
Appendix Q: Ethics Approval Certificate
Appendix R: Link to the MSW Dissemination Video

https://www.youtube.com/watch?v=0XLdzynKb0
Appendix S: Informed Consent Script for subjects of photos or videos taken by research participants

Title of Project: Growing old in the face of poverty and climate disasters: A case study exploring disaster resilience in the Philippines

I [subject’s name]:

1. Grant permission for my photo to be taken  Yes or No
2. Grant permission to be audio and video-recorded  Yes or No
3. Grant permission for my photo-images and audio/video-recordings to be used for the sole purpose of the research project  Yes or No

4. Understand that there is the potential that photo, audio and video records of myself will be ultimately available in outlets that the researchers cannot control (e.g., YouTube)  Yes or No

5. Understand that the photographs or videos will become property of the Project and the research participant should the participant wish to retain copies.  Yes or No

Participant’s Name (Please Clearly State)

Date (Please Clearly State)
Appendix T: Link to Local Dissemination Video

https://www.youtube.com/watch?v=ccCyS1sHe-Y
Appendix U: Concept Note of Healthy Ageing Service Leaders Training Project

Organization Details

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Healthy Ageing Service Leaders Training Project (Tacloban City)</th>
</tr>
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<tr>
<td>Organization Name</td>
<td>Coalition of Services of the Elderly (COSE)</td>
</tr>
<tr>
<td>Contact Person</td>
<td>Name: Crystal Kwan Mobile phone: Email: <a href="mailto:crystalyeegitkwan@hotmail.com">crystalyeegitkwan@hotmail.com</a></td>
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Project Objective

The aim of the project is to recruit and train a group of volunteers to be healthy ageing service leaders. The service leaders will go through a 16-week training session (meeting once a week for half a day, e.g., 9am-12pm) to develop their skills, knowledge, and experience in planning and facilitating activities and events related to healthy ageing in their communities/barangays.

Target Area & Beneficiaries

The project will be implemented in ten barangays within Tacloban City. From each barangay we will recruit three volunteers. One of the volunteers will be a representative from the LGU and the two others will be community members (at least one must be a senior citizen). The direct recipients of the project will be the 30 volunteers, and the community members they engage through the four service days they will plan and facilitate throughout the course of the 16 weeks. Indirect beneficiaries include families of the volunteers, the local OPA, the local government unit, local health unit, and the wider community.

Outcomes

The expected results are:

- Volunteers have enhanced knowledge about healthy ageing
- Volunteers have enhanced capacity to plan and facilitate healthy ageing activities and events in their respective barangays
  - Volunteers have planned and facilitated four healthy ageing activities and events (aka healthy ageing service days) in their respective barangays
  - Volunteers have developed a detailed outline for planned activities and events related to healthy ageing for the 2018 year

Duration

The project will be implemented from October 2017 to January 2018.

Snapshot of Project Activities

Week 1: Orientation (October 12th)
• Review the time line of activities, themes, etc.
• Getting to know each other conversation café style (round the world)

Week 2, 3, & 4: Healthy Ageing Learning Workshop 1: Social Health & Well-being (October 16th to Nov. 4th)
  • Week 2 (Oct. 15th to 21st): half-day learning + planning workshop 1
  • Week 3-4 (Oct. 22nd to Nov. 4th): Service day 1
  • Note: Public Holidays October 31st and Nov. 1st

Week 5, 6, & 7: Healthy Ageing Learning Workshop 2: Psychological Health & Wellbeing (Nov. 5th to Nov. 25th)
  • Week 5 (Nov. 5th to Nov. 11th): 3-hour learning + planning workshop 3
  • Week 6 + 7 (Nov. 12th to 25th): Service day 2

Week 8, 9, & 10: Healthy Ageing Learning Workshop 3: Physical Health & Well-being (Nov. 26th to Dec. 16th)
  • Week 8 (Nov. 26th to Dec. 2nd): 3-hour learning + planning workshop 4
  • Week 9-10 (Dec. 3rd to Dec. 16th): Service day 3

BREAK Dec. 17th, 2017 to Jan. 7th, 2018

Week 12, 13 & 14: Planning for 2018 Healthy Ageing Service Days (Jan. 8th to 28th)
  • Planning for 2018 DAY 1
  • Planning for 2018 DAY 2
  • Planning for 2018 DAY 3

Week 15: Graduation, Feedback/post-assessment (harvesting outcomes document from Erin) & Celebration (Jan. 29th to Feb. 4th)

**Approach**

A community development (CD) and adult learning approach will be used to implement the project. A CD approach emphasizes that community members, themselves, be engaged and take a lead role in development projects within their community. Strengthening the capacity of community members is another important aspect of the CD approach, and this is the rationale for integrating the life-learning component to the project. Adult learning emphasizes co-learning whereby participants are not only learners but also teachers – they (the seniors) also have knowledge, skills, and experience to share with others and it is critical that throughout the training sessions that opportunities arise for such wisdom to surface.
## Budget

### Detailed Project Budget

**Healthy Ageing Service Leaders Training Project (Tasman-COSE)**

Aug 2017 - Jan 2018

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## Sustainability

There will be three weeks dedicated to helping the team to discuss and plan healthy ageing activities and events (service days) for the 2018 year.
Appendix V: Planning Agendas for the Sustainability of the Healthy Ageing Project

AGENDA

Strategic Planning Workshop #1
Part A: Review vision and mission of project
Part B: Brainstorm and come up with barangay specific objective for 2018 Healthy Ageing Program

Learning Objective(s):
After this workshop participants will be able to:
• Articulate what the vision and mission of this healthy ageing project
• Identify and create an objective for their specific barangay (related to the vision and mission)
• Complete the first part of the proposal (Objective)

Date: Jan. 7th, 2018
Time: 1:30-3:00PM approx. 1.5 hours
Location: Sabang Barangay Hall
Attendees: Volunteers and Facilitators
Please bring: Printout 1 (proposal template) x 30 copies, X-Large poster paper (x 15 copies), black markers (x 10), tape, ball (to throw around for providing answers)

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<th>Ice Breaker Activity</th>
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<td>5 minutes</td>
<td>Review agenda, VMOSA, and vision and mission of project</td>
<td>Crystal</td>
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<tr>
<td>20 minutes</td>
<td>Coming up with our objectives via the problem tree and solution/objective tree activity</td>
<td>Crystal</td>
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<tr>
<td>45 minutes</td>
<td>Selecting barangay specific objectives and revising objectives to be SMART-C</td>
<td>Crystal</td>
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<tr>
<td>5 minutes</td>
<td>Fill out part 1 of the proposal</td>
<td>Crystal</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Review next week agenda and ask participants to transfer/collection any photos/videos of activities (Bluetooth exchange) for evaluation day.</td>
<td>Crystal</td>
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Additional Instructions:
AGENDA

Healthy Ageing Workshop #5

Learning Objective(s):
After this workshop participants will be able to:
- Create an action plan for their 2018 Healthy Ageing Program
- Complete the second part of the proposal: Objective Analysis and Action Plans

Date: Jan. 13th + Jan. 27th, 2018  
Time: 1:30-2:30pm (approx. 1 hour) / day  
Location: Taguictic, Daycare Centre  
Attendees: 30 Volunteers and 3 Facilitators  
Please bring: x-large poster paper (x12), black markers (x12), scrap paper, tape

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<td>Icebreaker Activity</td>
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<td>Review Problem Tree and Agenda Today: Solution/Objective Tree and Action Plan</td>
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<td>15 min</td>
<td>Come up with a list of all the actions and activities for your program (fill out column 1)</td>
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<td>Determine when each action/activity needs to take place in 2018 (fill out column 2)</td>
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<td>Determine the costs associated with each action/activity (fill out column 3)</td>
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<td>Review next week agenda and ask participants to transfer/collect any photos/videos of activities (Bluetooth exchange) for evaluation day.</td>
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Additional Instructions:
Appendix W: Research Brief of Study Findings

Resilience is not innate. There are processes that can be implemented or changed to build a seniors’ resilience to disasters.

**Background**

What are the vulnerabilities and protective processes that impact a seniors’ resilience to disasters? This study explores that broad question, focusing on seniors who are: i) women, ii) widowed, iii) head of households or living alone, iii) low SES, and iv) living in a disaster-affected community in the Philippines.

In November 2013, the Philippines experienced Typhoon Haiyan (locally called Yolanda). This typhoon is one of the strongest recorded storms in the world, and left a heavy toll of casualties and destruction. Seniors were disproportionately impacted by the typhoon, as they made up 40 percent of the disaster-related deaths, despite constituting only 8 percent of the total population (HelpAge International, 2013).

As the intensity and frequency of climate disasters continue to increase, there is a need to understand what contributes and hinders a seniors’ resilience. Yet, little is known about the complexity, particularity, and heterogeneity that characterizes seniors’ disaster resilience. Age alone does not make older adults vulnerable, but rather intersecting factors such as gender, socioeconomic status and familial relations, amongst others, are critical to an improved understanding of their vulnerabilities and protective processes (Duggan et al., 2010).

**Research Design**

A community in Tacloban City, Leyte was selected as the research site. Tacloban city was one of the hardest-hit areas and is considered as ground zero of Typhoon Haiyan. A participatory qualitative case study research design was used. A case study research is defined as “an in-depth understanding of a single or small number of ‘cases,’ set in their real-world contexts” (Yin, 2012, p.4). This approach was used because of its ability to: uncover contextual conditions, focus on particularization not generalization, and “capture the unique complexities of a phenomenon” (Stake, 1978, p. 6).

With the help of a local non-governmental organization, the Coalition of Services of the Elderly (COSE), four participants were recruited that met the five inclusion criteria. Data was collected through interviews, focus groups, participant observation, and multimedia methods between April to October 2016. Participants were trained to use cameras and to use photography and videography to express their perspectives, and were also engaged in conducting peer interviews and the co-creation of a video illustrating the study findings (link to video provided below).

**Findings**

Protective processes that contribute to seniors’ disaster resilience include: i) Employment and/or livelihoods, ii) independence and self-determination, iii) close relationships with family, peers, and the local government unit, and iv) being able-bodied and healthy.

Employment and/or livelihoods. As a senior living alone or as a single senior and the head of the household with dependents (e.g., grandchildren), having their own source of income through employment (e.g., working as a barangay aid/custodial community worker) and/or livelihoods (e.g., selling vegetables, selling prepared foods, and/or operating a small sari-sari store/neighborhood convenience store from their house) is crucial not only for the sustenance of the seniors but also to the household.

Independence and self-determination. Having their own sources of income allowed the participants to live independently and in a separate household. All the participants intentionally chose to live in a separate household from their adult children, albeit still close in proximity to their children’s houses. There are several reasons for this including, not wanting to burden their children and being independent and having the ability to make decisions that affect their own lives, with the latter being a primary reason to live separately.

Nanay Aca, a participant, learns how to use the camera
Close interpersonal relationships. While participants value deeply their independence and self-determination, they also acknowledged their reliance on close interpersonal relationships as contributing to their health and well-being in everyday life and in particular during and after disasters. Three specific relationships were important: i) familial, ii) peers, and iii) local government officials at the barangay/community level.

Being able-bodied and healthy. Participants explained that their ability to recover and rebuild after a disaster was also due to their relative good health (e.g., no mobility issues and chronic illnesses). They acknowledged that regular physical activities contributed to a more positive health status, and despite not having time to do formal exercises they attribute their daily exercises to tasks/activities related to their employment and/or livelihoods (e.g., gardening and walking to the market to purchase goods). Further, participants attributed their health status to herbal remedies they routinely take and to their diet (e.g., fish, vegetables and rice).

Vulnerabilities that hinder a seniors’ disaster resilience include: i) having multiple roles and responsibilities, ii) housing vulnerabilities, and iii) lack of land tenure security or ownership.

Multiple roles and responsibilities. As the only elder in the household and either living alone or the head of the household, the participants discussed how the numerous and multiple roles and responsibilities can be challenging at times. For instance, one participant spoke about how being the breadwinner, the primary caregiver of her four grandchildren who are all still in school, and being responsible for all the domestic household chores (e.g., washing clothes, cooking, and cleaning) can be time-consuming whereby she has little time and energy left to participate in other activities (e.g., regular meetings and volunteer opportunities with the older people association in her community).

Housing vulnerabilities. Due to limited financial capacity and resources/materials available, the seniors’ houses that are re-built after a disaster are often still in a transitional stage whereby the physical structure is no stronger than before and remains vulnerable in the face of disasters. Further, due to the same financial constraints, the location of their houses are more often in hazard-prone areas of the community.

Land tenure security or ownership. The participants do not own or have formal land titles of the land they have settled in, even though they lived on the land for more than 30 years. This has led to initial challenges in availing disaster assistance. Further, participants expressed concerns about being forced to re-locate, whereby one participant mentioned she was already forced to re-locate five times in the 30 years she has lived in the community. The perceived fear of forced re-location also prevents the seniors from investing in building more permanent and disaster resilient houses.

Recommendations
Diversify the employment and/or livelihood opportunities for seniors by providing technical education and skills development programs specifically for senior citizens. While the employment and/or livelihoods of the participants have been critical to the sustenance of the seniors and the overall household, the income gained are often variable and not enough to build savings and capital, which is particularly important if their livelihoods are affected or destroyed from a disaster (the latter being the case when Typhoon Haiyan struck). Further, the types of employment and/or livelihoods available to seniors are limited. Broadening the possibilities for what seniors can in terms of employment and/or livelihoods can help diversify their income sources and adapt to changes in situations and contexts. TESDA, a government agency that oversees the development of technical education and skills in the Philippines, can be an avenue in which to create, enhance, and foster senior specific learning and training opportunities.

Capitalize on existing older people associations (OPAs) to build protective processes and focus on the recruitment/inclusion of marginalized seniors in the community. The findings highlight that disaster resilience is linked to wider development initiatives. The OPAs have potential to build protective processes, as its goal is to address development issues and possibilities for seniors at the community level, which include for example, building peer relationships, fostering self-determination and independence (e.g., through micro-loan programs), and educating/advocating with seniors on their rights (e.g., rights from forced evictions). However, it must focus on the inclusion and consideration of the unique situations of seniors, especially those who are over-burdened with multiple roles and responsibilities and do not have the privilege of time to participate in existing activities and programs.

Resilience building practice, programs, and policies need to address the collective situation of seniors, while at the same time flexible enough to adapt to the particular situation. Seniors are often generalized into one homogenous group in practice, programming, and policy documents. While it is helpful in understanding seniors’ issues, challenges, and possibilities in generalized contexts, it is equally important that we acknowledge the particular situations and contexts seniors are in. For instance, while the findings represent the collective voices of four seniors, each protective process or vulnerability vary in degree for each participant and this represents layers of complexity and diversity when considering each of their resilience to disasters. Thus, the inclusion and participation of diverse voices in the development, implementation, and evaluation of resilience building practices, policies, and research are essential to reflect the heterogeneity of the senior population.

Link to video:
https://www.youtube.com/watch?v=ccCyS1tH43Y&feature=youtu.be

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