

INVESTIGATING THE ROLE OF MEALS ON WHEELS COMMUNITY SERVICES (MOWCS) ON FOOD SECURITY AMONG OLDER PERSONS IN BROOKLYN, CAPE TOWN

By

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DECLARATION

I, Magnifique Nkurunziza, the undersigned candidate, declare that "Investigating the role of Meals on Wheels Community Services (MOWCS) on food security among older persons in Brooklyn, Cape Town" is my original work and has not been previously submitted to any other University for the awarding of a degree either in part or in its entirety, and that all the sources I have used or quoted have been indicated and acknowledged by complete referencing.

Magnifique Nkurunziza

September, 2019



ACKNOWLEDGEMENT AND DEDICATION

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CONTENTS

DECLAF	RATIO	N	ii
ACKNOWLEDGEMENT AND DEDICATION			iii
CONTE	NTS		iv
LIST OF	FIGU	RES & TABLES	vi
ACRON	IYMS		vi
ABSTRA	АСТ		ix
CHAPTI	ER 1:	GENERAL OVERVIEW	1
1.1.	Stu	ıdy Background	1
1.2.	Pro	blem statement	4
1.3.	Sig	nificance of the study	5
1.4.		ıdy Aim	
1.5.		jectives	
1.6.		search questions	
1.7.	De	finition of terms	6
1.7	7.1.	Meals on wheels Community Services	6
1.7	7.2.	Beneficiaries	
1.7	7.3.	Older persons	6
1.7	7.4.	Social grant	
1.7	7.5.	Old Persons Grant (OPG) Food security Dietary diversity	7
1.7	7.6.	Food security	7
1.7	7.7.	Dietary diversity	7
1.7	7.8.	Focus group discussionapter outlines	8
1.8.	Ch		8
1.9.	Со	nclusion	9
CHAPTI	ER 2:	LITERATURE REVIEW	9
2.1.	Int	roduction	9
2.2.	Ov	erview of the world's food security	9
2.3.	Afı	ica and food security	11
2.4.	Th	e state of food security in South Africa	14
2.4	4.1.	Hungry amid plenty	16
2.4	4.2.	Hunger manifestation	16
2.5.	Fo	od security among the elderly in South Africa	17

2.6.	Interventions	19
2.6	.1. Social grants	20
2.6	.2. Meals on Wheels Community Services (MOWCS)	21
2.7.	Gaps that the research intends to fill	23
СНАРТЕ	R 3: CONCEPTUAL FRAMEWORK	24
3.1.	The four dimensions of food security	24
3.2	Food Availability	27
3.3	Food Accessibility	27
3.4	Food Utilization	29
3.5	Food Stability	29
3.6	Dietary Diversity Index (DDI)	
СНАРТЕ	R 4: DESIGN AND METHODOLOGY OF THE STUDY	
4.1.	Research site selection	32
4.2.	Participants /Sampling	
4.3.	Data collection	33
4.3	.1. Semi Structured interviews (SSI)	34
4.3		
4.3	· 111	
4.4.	Data analysis	
4.5.	Scope and limitation of the study	
4.6.	Ethical ConsiderationsResearcher's reflexivity on the research	36
4.7.	Researcher's reflexivity on the research	36
4.8.	Researcher's interaction with the research	
CHAPTE	R 5: FINDINGS	39
5.1.	Demographic characteristics	39
5.1	.1. Description of the key variables and their demographic characteristics	40
5.2.	MOWCS Brooklyn contribution towards food security among older persons	41
5.2	.1. Food availability	41
5.2	.2. Food stability	45
5.3.	MOWCS Brooklyn beneficiaries' experiences with food security	50
5.3	.1. Food access	50
5.3	.2. Food utilization and dietary diversity	53
СНЛВТЕ	R 6. SLIMMARY CONCLUSIONS AND RECOMMENDATIONS	5.2

A. The contribution of MOWCS Brooklyn on food security among the elderly5	58		
B. Hunger among the beneficiaries of MOWCS Brooklyn5	59		
6.1. Conclusion6	50		
6.2. Recommendations6	51		
REFERENCES			
APPENDIX A: INDIVIDUAL INTERVIEW GUIDE FOR INTERVIEWS WITH BENEFICIARIES OF MOW			
APPENDIX B: INDIVIDUAL INTERVIEW GUIDE WITH MOWCS STAFF			
APPENDIX C: FOCUS GROUP DISCUSSION GUIDE WITH BENEFICIARIES OF MOWCS			
LIST OF FIGURES & TABLES			
Figure 1 : Food security model	26		
Table1 : Summary of demographic information from beneficiaries of MOWCS	39		
Table2 : Summary of demographic information from MOWCS Staff	10		
Table3 : Summary of key demographic variables for beneficiaries	10		
Table4 :One week menu sample	55		
ACRONYMS			
CAADP: Comprehensive Africa Agriculture Development Programme			
CBOs: Community Based Organizations			
CCUS: The Corporate Communications of the University of Stellenbosch			
CFS: The Committee on World Food Security			
CSG: Child Social Grant			
CSM: The Civil Society Mechanism			
CSOs: The Civil Society Organizations			
DDI: Dietary Diversity Index			
EPWP: Expended Public Works Programs			
FAO: The United Nations' Food and Agriculture Organization			

FBs: Food Banks

FIES: The Food Insecurity Experience Scale

GEAR: Growth, Employment and Redistribution Strategy

GHI: Global Hunger Index

HDDS Household Dietary Diversity Score

IDDS: Individual Dietary Diversity Score

ILO: International Labour Office

MDGs: The Millennium Development Goals (MDGs),

MOWCS SA: Meals on Wheels Community Services South Africa

MOWCS: Meals on Wheels Community Services

NAD: National Development Agency

NCAOP: The National Council on Ageing and Older People

NDA: National Development Agency

NDP: The National Development Plan

NFSS: The National Food Security Strategy

NGOs: Non-Governmental Organizations

NIDS: National Income Dynamic Survey

NPC: National Planning Commission

NPFNS: The National Policy on Food & Nutrition Security

ODTP: The Organizational Development and Transformation Plan

OPG: The Older Persons Grant

PoU: The Prevalence of Undernourishment

PSFI: The Prevalence of Severe Food Insecurity

RDP: The Reconstruction and Development Programme

SALDRU: The Southern Africa Labour and Development Research Unit

SASSA: The South African Social Security Agency

SBC: The South African Broadcast Network

SDA: The Seventh-day Adventist church.

SDGs: The Sustainable Development Goals

UN: The United Nations

UNDESAPD: The UN Department of Economic and Social Affairs Population Division

UNDP: The United Nations Development Programme

UNICEF: The United Nations International Children's Emergency Fund

USA: The United States of America

WEF: The World Economic Forum

WFP: The World Food Program

WHO: The World Health Organization



ABSTRACT

Food insecurity remains a global challenge despite efforts to combat it in all its forms. Africa has the highest prevalence of food insecurity worsened by a deepened poverty affecting mostly children, women and the elderly. However, South Africa is a food secure country and has declared access to healthy food and clean water as a human right. Ironically many remain victims from food insecurity including the elderly. Yet, little is known about the elderly's experiences with food insecurity, even less is known about interventions that exist to alleviate food insecurity among the elderly. For this reason, this study investigated the role of Meals on Wheels Community Services Centre in the promotion of food security among the elderly in Brooklyn, Cape Town.

The study was anchored around the food security framework. The research was conducted using qualitative research methods. A total of 10 individual interviews and one focus group discussion was conducted with beneficiaries from Meals on Wheels Community Services Brooklyn centre. Moreover, 3 key informant interviews were conducted with staff at Meals on Wheels. The data was transcribed verbatim and analysed using thematic analysis methods.

Key words: food security, older persons, food security and elderly, Meals on Wheels Community Services Centre, dietary diversity, social grant, older person's grant

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CHAPTER 1: GENERAL OVERVIEW

1.1. Study Background

The food produced in our world is more than enough to feed all the inhabitants of the world as food production has kept pace with demand (Sasson, 2012:10 & Ncube, 2014:2). Escalated after the 2008 global economic downturn, food insecurity has been for a long time a recurring global crisis, inflicting a big proportion of the world's population (Labadarios et al, 2011:891). According to the United Nations' Food and Agriculture Organization (FAO) et al (2017: 2), the rate of people suffering from hunger increased by 11 percent in 2016. During this time the global figure of food insecure people increased from 777 to 815 million. With this rate anticipated to gradually increase as the world population increases to 10 billion people by the year 2050, it is estimated that by that time the food prices will increase to 50 percent at a global level and almost double in developing countries (FAO, IFAD, UNICEF, WFP & WHO, 2018:2).

The above statistics are alarmingly high as they portray a huge number of those suffering from chronic hunger and malnutrition in the world. Of great concern is the fact that this situation tends to escalate into a famine, especially in war stricken regions, example are countries such as South Sudan, Nigeria and Yemen which were declared famine zones early in 2017 (Sasson, 2012: 2 & FAO et All, 2017:14). As pointed out earlier, food insecurity is not a unique challenge to households in developing countries but a global problem. Sasson (2012) reported that many households (19 million people) in the developed countries experienced food insecurity. Countries in high income regions such as the United States of America and Canada were also reported to have some households battling with food insecurity. In Canada, the prevalence of food insecurity is reported to have increased during the period 2005 to 2012 (Dieticians of Canada, 2005:1, Food Insecurity Policy Research, 2018). The United States of America, (Aceves & Wellin, 2016) reported food insecurity among households. This proves that eradication of hunger remains a huge global problem and requires further attention. In the meantime, the international community is not silent regarding this humanitarian crisis but continues to express much concern. In an attempt to manage food insecurity, the world leaders gathered at a summit held at the United Nations at the beginning of our millennium, to devise possible solutions to the situation. These leaders shaped a broad vision to fight poverty in all its dimensions and adopted 8 Millennium Development Goals (MDGs). The first MDG aimed at fighting and ending poverty and hunger in all of its dimensions

by the end of 2015 (United Nations Report, 2015:4). Consequently, different governments implemented strategies to meet MDG 1, and positive outcomes and progress were observed in some parts of the world like Asia, Latin America and North Africa. Nevertheless, during the era of the MDGs, food insecurity noticeably worsened in Sub Saharan Africa, as well as in South East and South West Asia. Thus, urgent steps continued to be needed to fight this social injustice (Hwenha, 2015: 7 & FAO et al, 2017:2). In 2015, the MDGs were replaced by the Sustainable Development Goals (SDGs), with the second SDG carrying the same task as MGD1 of securing a world free of hunger and poverty (FAO, 2017: vi & viii). However, as the problem continues to worsen in many countries, little is being achieved to meet SDG2's goal of eradicating food insecurity. Importantly food security should be addressed from a holistic and multi-stakeholder approach. According to FAO (a) (2017), this approach tackles food insecurity from all angles including malnutrition, productivity and income of small scale farmers, resilience of food production systems and the sustainable use of biodiversity and genetic resources.

Moreover, as far as policy is concerned, each individual government has a mandate to address its food problems in order to assure the welfare of its citizens (Ncube, 2014:19). In the South African context, both the South African Human Rights Commission and the Bill of Rights (1996) stipulate access to healthy and sufficient food as well as access to clean water by all as a human right. Hence, the government has implemented initiatives to halve poverty wherein food insecurity is the main target. Such initiatives include the Social Assistance Act of 2004, which regulates the payment of social assistance grants and provides other relief measures (Government Gazette, 2004). Again, there are no noticeable achievements as far as food security for all is concerned in South Africa. Factors such as a high level of poverty, inflation, inequality and unemployment are refer to as the main hindrances to the achievement of food security in the country (Altman, Hart & Jacobs 2009: 7). Devereux & Waidler (2017: 9) presented the paradoxical context of food security in South Africa; at the national level South Africa is a food secure country with plentiful food to feed all of its population but at individual and household levels, majority of South Africans are food insecure. This is supported by the FAO (2012) report that the aggregate food supplies in South Africa have been rising even above the population growth, yet this increase in aggregate food supply has not translated into the reality of food security for all. Abdu-Raheem & Worth

(2011:91) argue that food insecurity in South Africa is not the result of inefficient agricultural outputs, but of unequal distribution and opportunities.

Mbhenyane & Labuschange, (2016) claimed that the richer and developed a country becomes, the less food insecure they are. Therefore, the persistent food insecurity is a dishonour to South Africa as an emerging economy (Amadeo, 2017). Different studies continue to point out high levels of food insecurity among households in South Africa and malnutrition among the children remains evident. For instance, Devereux & Waidler (2017: 12) stated that from 1994 to today, malnutrition among the children in South Africa has never been improved; in fact, it has stagnantly remained between 20% and 30%.

Apart from children, and homes headed by single parents, another demographic group vulnerable to hunger and malnutrition are the elderly. The Corporate Communications of the University of Stellenbosch (CCUS), (2017) revealed that in South Africa majority of individuals above the age of sixty suffer from poverty and malnutrition, and the magnitude of the problem is often underestimated and consequently under treated.

In developing countries, the link between poverty and income is reinforced through the repeated patterns of poor people spending much of their income towards their food needs especially in urban settings (Ikejiaku, 2009: 16; Battersby, 2011: 24 - 25 and FAO, 2012). Historically, majority of older persons in Africa are poor as they do not possess sufficient or regular income, in fact, some have never had one before and they now depend on the Older Persons Grant (OPG) as the sole source of income. Considering South Africa's current high cost of living and high price of food in the market, this OPG of R1780 per month (Government of South Africa, 2019) is not sufficient to sustain a household's living expenses. The insufficiency of the OPG is aggravated by the fact that many of the older persons remain the main breadwinners in their households, often having many dependents. Ralston et all (2016) claimed this is due to the high levels of unemployment and lack of social security systems for people aged 18-60. Thus, the moment the older person receives his/her OPG, it is thinly spread to support the subsistence needs of the whole household dependants. In this way the OPG assist little to its intended beneficiaries. Therefore, the older persons are challenged to secure healthy and nutritious meals; thus malnutrition combined with other factors associated with ageing such as functional disabilities and isolation create a critical condition, which aggravates poor health and thus culminating in premature death (Keller et al, 2007: 319). Currently there is a lack of data on the rate of hunger among the elderly in South

Africa. The common understanding however, is that older persons form part of the most vulnerable people to hunger and malnutrition in the country.

Aceves & Wellin (2016) reported that in the United States of America, for older people to be food secure they had to participate in programs that deliver them meals. This explains the existence of different organizations created in the charter of bringing hunger relief to the elderly and thereby providing them a healthy and dignified aging. Mainly non-governmental in nature, these organizations include food banks, community kitchens, and Meals on Wheels Community Services Centers etc. (Dieticians of Canada, 2005). These non-governmental organizations also exist in South Africa, and this study aims to investigate the role played by one of them: Meals on Wheels Community Services (MOWCS) in the promotion of food security among the elderly in Brooklyn, Cape Town.

1.2. Problem statement

MOWCS has been operating in South Africa for a very long time (55 years) and is partially subsidized by the government (Rayan & Madzana, 2015: 6 & 4). Reports from other countries, have proven MOWCS to be of invaluable benefit in alleviating food insecurity among the elderly and the needy in different communities (The Dieticians of Canada (2005); O'Dwyer, & Timone (2008); The Health Trust Report (2009); Soltas (2015) and Aceves & Wellin (2016)). However, in South Africa there is an information deficit regarding MOWCS services and its role towards food security for older persons. As a consequence, very little is known about the availability, characteristics, effectiveness, quality and feasibility of MOWCS as it presently runs in the country. The current dearth of data on MOWCS means that we remain uninformed about whether service meets demand, which can lead to an underestimation of their services and the questioning of their necessity within the community. Moreover, knowledge about the contribution that MOWCS is making towards food security for the elderly, will help ascertain if this model should be replicated in other settings where there are food insecure older persons. It will also shed light on the contribution that non-governmental organizations are making towards food security. Thus, an investigation is needed in order to shed much light on food insecurity among the elderly and the role played by MOWCS in the promotion of food security among the elderly within South African communities.

1.3. Significance of the study

This research will benefit policy makers and the Department of Social Development, in that it will assist in the adjusting, (re)formulation or (re)structuring of existing or new policies that will enable the addressing of food security challenges among the elderly in a more comprehensive way than has been done to date. Additionally, the study generated viable recommendations that can be adopted by local authorities, government and other relevant stakeholders so as to improve the livelihoods of urban households, especially those of older persons by highlighting measures to boost food security. Furthermore, the study's findings will also serve as a guideline to the imminent practices of community development practitioners such as social workers by enhancing their approaches towards the issue of food insecurity among the elderly. Most importantly, the findings may provide MOWCS South Africa with important insights into how they can improve their services towards promoting food security among the elderly in the country.

The presently available information in regard to the status of food security among the elderly is very limited. Thus the findings of this study will add to this knowledge by filling gaps in the existing literature. Moreover, this research ought to offer a basis for further studies in the field.

1.4. Study Aim

This study aimed to investigate the role of Meals on Wheels Community Services in the promotion of food security among the elderly in Brooklyn, Cape Town.

1.5. Objectives

The specific objectives of the research were to:

- Explore the dietary diversity in the meals served by MOWCS to their beneficiaries by documenting the type of food served and portion sizes.
- Determine the frequency of the meals and the extent to which beneficiaries reported ever experiencing hunger.
- Explore the perceptions that the beneficiaries have about MOWCS and the role the organization plays towards food security among the elderly in Brooklyn, Milnerton.

• Explore the experiences of Meals on Wheels Community Services in providing food to the elderly in Brooklyn, Milnerton

The study provided recommendations that will inform policy makers and key players towards a clear policy direction with regards to the eradication of hunger among the elderly.

1.6. Research questions

The questions that were answered by the study were:

- a) How does MOWCS Brooklyn contribute to food security among older persons?
- b) What are the experiences of MOWCS beneficiaries with food security?

1.7. Definition of terms

This section provides definitions of some of the terms used in this study in accordance to how they are used in the study. These terms include food security, Meals on Wheels, dietary diversity, social grant, older persons, and beneficiaries

1.7.1. Meals on wheels Community Services

According to their official website (2018) Meals on Wheels Community Services is an organization named after the type of the work they do. They deliver ready meals to the elderly, the poor and the needy in the society. They do not only deliver the meals but they also do render other social services to their beneficiaries as further explained in the <u>conclusion chapter</u>.

1.7.2. Beneficiaries

Beneficiaries are defined in this study as the recipients of the meals and services offered by the Meals on Wheels community Service Centre and members participating in the program. In this study beneficiaries are the older persons (Ryan & Madzana, 2015:9)

1.7.3. Older persons

Although within the South African contest, the eligibility age for an OPG starts from 60 years and above (the South African Social Security Agency - SASSA, 2018), Julian (2003: 3) argued that

being old can happen at different chronological ages depending on the prevailing socio-cultural environment, or even on the specific context of sub-groups within the society. Thus individuals from the age of 50 and above are considered to be old with different stages of ageing. Julian's classification entails 4 stages of ageing: the first one being "Near Old Age (50-63 years)"; these are individuals preparing to be old. The second stage is "Old Age (64-73 years)"; at this stage people are conventionally considered old but not necessarily depending on anyone. The third stage is called "Late Old Age (74-83 years)" where individual are no longer key decision makers and breadwinners but still exercise a limited freedom and the fourth stage is "Frail Old Age (84+)"; at this stage person is frail and is physically and financially dependent Julian (2003: 4).

1.7.4. Social grant

Social grant is defined an income transfer provided by the government to the legitimate needy and it is awarded in different forms depending on the applicant's needs. There are older persons grant, war veteran's grant, children's grant, disability grant and so on (SASSA, 2018).

1.7.5. Old Persons Grant (OPG)

According to (Government of South Africa, 2019) the Older Person's grant (OPG) is a means tested grant awarded to qualifying individuals aged starting from 60 years and above. The grant is currently an amount of R1780 per month per individual

1.7.6. Food security

As defined by the World Food Summit of 1996, food security is when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life" (Pinstrup-Andersen, 2009:5 & FAO, 2006:1). This definition implies that food availability and accessibility, utilization and stability both in quality and quantity are mandatory in order to guarantee food security.

1.7.7. Dietary diversity

Dietary diversity is a qualitative tool used to measure a household's access to food variety which determines the nutrient adequacy of a person's diet (FAO, 2011: 5)

1.7.8. Focus group discussion

A focus group discussion is qualitative approach used to gain an in-depth understanding of social issues. The method aims to obtain data from a purposely selected group of individuals rather than from a statistically representative sample of a broader population (Ochieng Et al, 2018)

1.8. Chapter outlines

Chapter 1: Introduction

This chapter introduces the study by providing a contextual background to the study. It also outlines the research problem, research questions, aims and objectives of the study as well as the significance of the study.

Chapter 2: Literature review

This chapter dedicates to a comprehensive review of the literature consulted during the study relating to the research problem being investigated. The aim was to provide knowledge in regard to the elderly's experiences with food insecurity and the role meals on Wheels is playing to address those challenges. The aim was also to identify the gaps and rejects flaws in other researches in the field.

Chapter 3: Conceptual framework

This chapter examines the conceptual framework that anchors this study.

Chapter 4: Research methodology

This chapter devotes on discussing extensively the research design including the choice of the site and of participants, and a discussion of the methods used in data collection and analysis, the ethical considerations observed during the conducting of the research and the limitations of the study.

Chapter 5: Presentation, Analysis and discussion of findings

This chapter gives the presentation, analysis and discussion of findings within the context of the literature review and conceptual framework presented in chapters 2 and 3.

Chapter 6: Summary, conclusions and recommendations

This closing chapter provides an overall summary of the findings of the study and conclusions that are drawn from them as well as the recommendations based on the discussion of the research findings.

1.9. Conclusion

The role played by Meals on Wheels Community Services Brooklyn Centre is important to research, especially in South Africa, where little is known regarding the elderly's experiences with food insecurity and the role played by Meals on Wheels Community Service Centre towards the promotion of food security among the elderly.

This chapter introduced relevant concepts and topics pertaining to food security among the elderly and role of meals on Wheels in the promotion of food security among the elderly. It also presents the research questions, aims and objectives of the study, the significance and the outline of the whole dissertation structure.

CHAPTER 2: LITERATURE REVIEW

2.1.Introduction

Food security has been widely researched and due to the complex nature of the topic, more investigations continue to submerge with new insights and dimensions. This section presents a review of the relevant literature on food security and the role played by MOWCS, with specific focus on the knowledge gaps that the study sought to fill. The section starts by introducing recent global findings on food security, next it discusses the trends in the current state of food security in Africa and then food security in South Africa and some of the government's interventions. MOWCS is also discussed and how it contributes to older persons' food security.

2.2. Overview of the world's food security

The ever expanding body of literature on food security includes reports by the United Nations (UN) Department of Food and Agriculture Organization (FAO); FAO et al, (2017), together with other global institutions such as World Health Organization (WHO, 2017), The United Nations International Children's Emergency Fund (UNICEF) (2017), World Food Program (WFP, 2017), World Economic Forum (WEF), Global Hunger Index (GHI, 2016 & 2017), United Nations (UN, 2015) reports, etc. as well as different individual researchers. These studies found the global number of people suffering from food insecurities to be very high and to be in the gradual increase

rather than decreasing. Therefore, an urgent call to all stakeholders for immediate action to halt this global crisis.

Studies have also discovered that in different parts of the world people experience food insecurity differently; some regions are severely hit especially those in developing countries such as Sub-Saharan Africa and South East Asia. In these countries, women, children and elderly are the most vulnerable (FAO, 2017 & Von Grebmer et al 2017 & Breene, 2017).

The fact that women are most vulnerable to food insecurity shows the persistence of gender inequalities in the world. Dr Stroebel Aldo via SABC News, (2017) and Von Grebmer et al (2017) argued that women are the backbone and foundation of food production activities and the social economic environment of all households. Dr Stroebel continued, if women could be given access to resources such as better access to information, education or production many people in the world would be better feed.

The global increase in the number of food insecure people defies the international community's efforts towards a hunger free world through the UN Agenda 2030 whose main target for sustainable development is to eradicate hunger and prevent all forms of malnutrition in all countries by the year 2030 (Von Grebmer et al, 2017: 12 & Breene, 2017).

In order to evaluate the progress on the current state of food security in the world, FAO used two types of indicators. The first indicator is the Prevalence of Undernourishment (PoU). This is based on the probability that a randomly selected individual from the reference population is found to consume less than his or her calories requirement for an active and healthy life (FAO, 2015: 49). The data are derived from each official country's data on food supply, food consumption, and energy needs (taking into consideration demographic characteristics such as age, sex and levels of physical activity). The PoU is FAO's traditional indicator established since 1974 to provide an estimate of the extent of hunger and food security (FAO et al, 2017:16). The second indicator is the Prevalence of Severe Food Insecurity (PSFI). The PSFI is measured using the Food Insecurity Experience Scale (FIES). The (FIES) is a new tool is centered on direct interviews to measure people's ability to access food. It provides estimations based on data gathered from adult folks worldwide. Both the PoU and the PSFI data showed that for a period ranging from 2002 to 2014, the estimate number of food insecure people has been stable at 777 Million people but the estimates

started increasing from 2014 and by the year 2017, estimations reached 815 million of food insecure people worldwide (FAO et al, 2017:15).

Among the causes of this increase in food security; the often unpredictable severe climate disruption induced by El Niño and La Nino weather phenomenon with their related droughts and floods, conflicts and wars, the 2008 global recession, food price fluctuations and population increase were commonly highlighted as key handicap to better crop production (FAO et al, 2017: 23, Pinstrup-Andersen, 2009:1 & Elsevier Online, 2017).

Although agricultural output is the foremost to address food insecurity (Ncube, 2014:21 & Breene, 2017), yet food security is challenged when it comes to nutritive security as the goal of interest. according to Pinstrup-Andersen (2009), Sasson; (2012), Breene (2017), Elsevier Online (2017), FAO (b) (2017) there is enough food to feed everyone in the world yet, access to food by all remains a mystery as researchers are failing to agree on one common way to the solution (Joubert, 2017).

For Pinstrup-Andersen; Pandya-Lorch & Rosegrant (2001: 1) the tackling of food security in the world has been slow and has not been tackled from all angles. Thus, policy makers and countries should adopt policies and interventions that foster inclusion where everyone can benefit equally from growth. For the choices of policy and investment decisions can profoundly influence the number and location of food-insecure people in the future. At the same time, the efforts to fight poverty and food insecurities in the world need to be combined with the changes in policies regulating the modern food processing as well as harnessing agricultural production to adapt to climatic changes and other shocks absorbing measurements.

2.3. Africa and food security

The 3rd International Conference on Food Security held in Cape Town shed much light on the current situation on food security in Africa. Scientists from the continent and abroad discussed different ways to boost the continent's agricultural outputs (Joubert, 2017). Although in some parts of the continent food and nutrition security have improved (e.g. North Africa) for the past few years, however malnutrition and hunger levels in Sub-Saharan Africa remain the highest in the world (Rukuni, 2017). Respectively the United Nations Development Programme (UNDP)

(2012:10) claimed that Africa has experienced economic development but this economic growth did not benefit everyone and due to food cost fluctuation and increase, many Africans who already live below the poverty line are continuously plunged into extreme poverty and consequently victims of food insecurity and malnutrition. Von Grebmer et al, (2016:5), FAO (2017:13) & FAO et al, 2017:18) supported this and claimed that food insecurity in the African continent is worsened by poverty and the Sub Saharan region being the most hit; requires immediate attention.

As of the details on the food insecurity in Africa, UNDP (2012:10) reported that many people are malnourished and suffer from hunger and food insecurity because of limited access to foods rich in macronutrients. Their diet is largely made of cereals without fruits, vegetables and animal proteins. Consequently, Sub-Saharan Africa remains the region with the highest Prevalence of Undernourishment (PoU), affecting an alarming 22.7 percent (Von Grebmer et al, 2016:7 & FAO et al, 2017: 18-19). With the low average per capita income and without prospect of economic growth, Pinstrup-Andersen; Pandya-Lorch & Rosegrant (2001: 10) & the UN Report (2015: 24) predicted that sub Saharan Africa would remain food insecure even in 2020.Similraly, the UN report also predicted that the rate of undernourishment would be of nearly 23% for the Sub-Saharan Africa for the period 2014 to 2016. The report indicated that the hunger rate had fallen but that the number of undernourished people had risen by 44 million people ever since the year 1994 stating the region's rapid population increase, environmental fragility and economic and political upheaval mainly (UN 2015: 24).

Unlike the rest of the world, majority of Africans rely on subsistence farming as the main source of income and food provenance (Diop, 2016). The underdeveloped agriculture generates poor or little crops which serves little towards food insecurity. In support of this, FAO (2017:7) stated that the climatic changes in the continent has already affected millions of poor people. The bad weather conditions affect the agricultural productivity thus furthering the social economic constraint to the majority poor small scale famers. Dlamini, (2013:18) argued that economic growth through agricultural output reduces poverty because it visibly improves decreased levels of hunger and malnutrition. In addition, this increase in agricultural produce, affords an income to small-scale farmers and generates jobs for poor people residing in rural areas. However, it must also be pointed out that increases in agricultural output or food production does not necessarily translate to

improved food security for everyone, due to the differential access to food that different individuals, households and communities have.

In addition to climate change, the continent's agricultural economy faces other challenges such as the lack of agricultural education and research, lack or poor irrigation systems and infrastructure, lack of technological advancement, insufficient access to resources (Ncube, 2014:48). Furthermore, there is a fast growing population in Africa, characterized by massive youth migration to the cities in the search of decent jobs. Urbanization also raises major concerns for food security, in that the farming sector loses a potential labor force to the cities yet is obliged to feed the cities' growing population. Hence the importance of making farming more attractive to the youth (Joubert, 2017). Professor Julian May, shared a different view on the growing population factor at the 3rd international Summit on Food Security, arguing that the growing population should not be a snare to food security and poverty alleviation; rather this youth energy should be harnessed as a surplus for economic growth (Joubert, 2017). Africans ought to implement policies that will enhance agricultural output by making it resilient to climatic change and shock at the same time attractive to the youth.

Some international initiatives to promote food security exist in the continent and more are encouraged. UNDP (2012:10) enumerated the following: The United Nations Renewed Efforts against Child Hunger with the aims of supporting African governments; the Global Alliance for Improved Nutrition whose focus is on improving partnerships within the private and public sectors; the USA government sponsored, Feed the Future which targets to improve financial investments. However, these initiatives are viewed as non-beneficial to the continent. Rukuni, (2017) claimed the international aid is not efficient because it disrupts the market and encourages government leaders to relax instead of working hard to implement policies of economic transformation and broadening an inclusive economy. Rukuni however supported the African Union initiative "Comprehensive Africa Agriculture Development Programme" (CAADP) though he admits it is poorly implemented.

According to Ncube (2014) CAADP is geared to improve agricultural development by improving policy and capacity dynamics in the agricultural sector. The CAADP focusses more on small scale farmers and thrives to provide them with access to markets and to create a more equitable distribution of wealth by increasing the income for rural populations. CAADP is across continent

initiative, but each country uses its own framework that suits its strategies and investment initiatives African governments and policy makers are called to create an economy that is inclusive where everyone benefits from the economic growth.

2.4. The state of food security in South Africa

As seen in Chapter One, South Africa, a presupposed food secure country, is in reality food insecure, with half of its population having precarious access to adequate and nutritious food (Short, 2012). This dares the country's sufficient capacity to feed everyone and to import food if need be, argued Professor Julian of the University of the Western Cape's Centre of Excellence in Food Security when he was interviewed on Morning Live (SABC 2017).

Different studies and analyses of food security and nutrition have studied and continue to look at different ways to resolve this paradoxical situation facing this country. Researchers include Devereux & Wailder (2017); May (2017); Ottermann (2017); Ncube (2014); Alterman (2009); Hendriks (2005 & 2014); Battersby (2006, 2009 & 2011), FAO & FAO et al, (2017), Oxfam (2014), Labrados et al (2011).

Through these studies and information centers, concerns have been expressed over the stubbornly persistent food insecurity in many households in South Africa. The situation is worsened by deepened poverty, inequalities, unemployment, inflation, which leads to high prices for food, water, electricity and petrol (Political exchange, 2013; Labrados et al (2011: 981).

Food insecurity in South Africa is manifested in three forms: malnourishment, undernourishment and obesity (Ottermann 2017). Many South Africans may not go to bed empty stomach, however the low quality in their calories consumption remains evident through the macronutrient deficiencies in their diet, said the former Minister of Agriculture, Fisheries and Forest Ms Tina Joemat-Petterson (Political Exchange Online, 2013 & Short, 2012). This explains the reason why there are many people suffering from a chronic lack of vitamins and minerals (National Planning Commission, 2011:93). Though often disregarded, Vitamins and minerals play an important role towards the functioning of the body and they have far-reaching benefits (Otterman, 2017). Oxfam (2014) reported of hidden hunger in South Africa, stating that poor people have good access to bad

food and bad access to good food. Hence the rising of many uncontrollable health problems with obesity leading the diseases (Otterman, 2015).

Again at the 3rd International Conference on Food Security, different scientists expressed their concerns about trade policies opted by different governments which have negatively influenced food security in general (Joubert, 2017). Prof Pell Alice from Conell demonstrated how the modern food processing, marketing and distribution impacts heavily on the nutrient value of food. Because the processing of food, strips it off important nutrients but leaves behind cheap, accessible yet often lifeless calories. Consequently, the food does not contain any goodness to nourish the body and therefore becomes a health hazard to the consumer. According to Prof Pell, the processed food attracts the market only because they have long shelves life, can travel safe, can even reach the remote areas, are low risk products for small business than the easily perishable vegetables and are filled with energy (Joubert, (2017).

The South African government's position on food security is very clear. Through different initiatives and Bills such as the Reconstruction and Development Programme (RDP), Growth, Employment and Redistribution Strategy (GEAR), etc. a strategic framework for action to attain food security for all is provided. In addition, Section 27 of the South African constitution treasures access to food and water as a right of every citizen and the State within its available resources must take reasonable legislative and other measures to achieve the progressive realization of each of these rights (Government Gazette 1994 & Hendriks, 2013: 3). Furthermore, the National Development Plan NDP 2030 introduced in 2010 shared devised goals to eradicate poverty, hunger and inequalities (National Planning Commission, 2011: 365). However, according to Oxfam (2014:10), one in four people in South Africa are at risk or are already experiencing hunger and poor households spend 50 percent of their income on foodThe social and economic rights as well as the right to food and safety are vital to any country's development therefore they must be prioritized. The above initiatives are good yet, the quality of food accessed from the South African supermarkets remains questionable. Tsegay, Rusare, & Mistry (2014:9) & Joubert, (2017) reported that the South African top decisions makers were adamantly ignoring the country's alarming hunger and malnutrition levels.

2.4.1. Hungry amid plenty

For a household to be considered food insecure it must have failed in one or all the four pillars from the standard definition of food security namely food availability, access, utilization and stability of both availability and access to good food (Tsegay, Rusare, & Mistry, 2014:8, 9). Up to now, literature has shown that the availability of food in South Africa does not merely mean access to healthy food by all but on the contrary many individuals and households continue to suffer food insecurity problems. With a market dependent society, the concept of affordability gets more attention (Devereux & Wailder, 2017:10). Earl, (2011) explained the concept of affordability in this way: "when individual households cannot grow food for themselves, they must then possess power of purchasing the food. If they do not have access to social grants or if the grant is not sufficient they are then unable to purchase essential food and thus become victims of food insecurity". With the commoditization of food, the power of purchase becomes limited only to certain individuals or households which can afford to buy healthy, adequate food.

In South Africa, both the poor and the rich shop from same market system (Battersby 2011:30-31). This disadvantages lower income households who are already struggling to meet their basic household needs (Short, 2012). Left with no choice, they opt for cheap, yet unhealthy foods (Food Security Information Brief 1; 2006). For Mukute et al (2002), quoted in Ncube (2014:48) food security is then compromised. This is because on the one hand food is available but unaffordable to people owing to high prices. On the other hand, food is available and inexpensive, but it does not meet the nutritional requirements for active, healthy and productive lives.

. Majority of poor South Africans live in the cities and unfortunately without no land or skill to earn extra income, they mainly depend on social grant as sole source of income (Battersby, 2011). Therefore, it is practically impossible for them to diversify income generating strategies. Moreover, Ncube, (2014: 87) claimed that a limited number of south Africans survive on subsistence farming owing to country's policies of no land. Therefore, a land reform is also a necessity while dealing with food insecurities.

2.4.2. Hunger manifestation

The consequences of food insecurity, hunger and malnutrition show up with visible detrimental effects. A human being endures physiological, psychological, emotional and even social defects which if persist, leads unto death. People who are hungry cannot carry out their full potentials and

some hungry people tend to acquire food in some socially non-acceptable ways. Children who who do not consume proper nutrients cannot attain their full cognitive development therefore cannot concentrate in school and as result their academic performance is very poor (Tsegay, Rusare, & Mistry, 2014:9,10)

Food is one of the elementary physiological needs which are vital to both survival and development of human being. That is why Maslow in his Hierarchy of Needs classified food as a basic physiological need that once reasonably satisfied one may be able to deal with other higher needs and if life's circumstances allow, the individual will be able to reach the highest level of need that he called self-actualization (McLeod, 2017). In other words, food is basic need that primarily needs to be satisfied. If food is not satisfied, first, no other move can be made towards self-realization in no development can be expected. The South African government recognizes food as a basic need that should be met for a better development of the nation (Government Gazette, 1994).

2.5. Food security among the elderly in South Africa

The phenomenon of ageing population is worldwide both in developed and developing countries as people live longer than before (Help Age International, 2018; The UN Department of Economic and Social Affairs Population Division (UNDESAPD) 2015:13 and Makiwane & Kwizera, 2007:297). Nevertheless, people living longer does not necessarily indicate living healthy. Sengupta, (2016:320) argued ageing healthy owes much to healthy physiological, cognitive, social and lifestyle behaviors upon which dietary intake and nutritional status have played a major role from the early life. Sengupta, continues health status is interrelated to ageing process and nutritional status intake plays an important role thereof.

Unfortunately, food security among older persons is globally and locally a poorly researched topic. In the United States for example, Strickhouser, Wright & Donley (2015) discovered that the past literature has placed much of their attention on children and single parents' household only. The same applies in South African literature with much focus on women and children or general issues regarding food insecurities but with few dedicated to food security among the elderly. Consequently, less is known about the food insecurities experienced by the elderly. Yet, some few sources have confirmed food insecurity together with all its related disease such as malnutrition,

obesity and undernutrition to exist among the elderly in South Africa (Keller et al, 2006 Makiwane & Kwizera, 2007; Edfors & Westergren, 2012; Ncube, 2014; CCUS, 2017;).

Food insecurity among the elderly constitutes a tenacious social and public health concern which affects to different degree individuals. Food insecurity among elderly is caused by a number of factors. In USA for example two factors were identified as the main cause of food insecurity among the elderly. These are according to (Sengupta, 2016) inadequate income and a fragile health. Sengupta, further explained inadequate income limits the affordability of healthy nutritious food whereas a fragile health resulting from both ageing and improper nutrients intake exacerbates their risks to infections and many other related health problems. Within the south African society, Ncube (2014: 74- 89) observed more factors such as chronic poverty, inadequate safety nets, change in living arrangement and caregiving, inadequate household food production, lack of support and the effect of unintended beneficiaries to the grant, older people heading households and lack of strategies to supplement the grants.

Chronic poverty in Sub Saharan Africa has been for long haunting the vulnerable people; women, children and elderly (Edfors & Westergren, 2012). Poverty means the lack of reliable and regular income or means that give access to the basic needs such as food, clean water, etc (Warshawsky, 2011:9) Though poverty and food insecurity are interrelated (Abdu-Raheem & Worth, 2011: 91 & Statistics SA, 2016: 97), Makiwane & Kwizera, (2007: 998) maintained that poverty among South African elderly is linked to the country's history. Poverty especially among the black people is attached with the apartheid legacy of land deprivation, limited access to education and unemployment, hence the then youth are now ageing in misery and poverty without any asset. And this often becomes like a circle that is passed on to the next generation and the so on.

However, older persons are a vital pillar of society and need to be taken care of. Makiwane & Kwizera, 2007:297) thus suggested issues regarding the support and care of older persons should receive much attention in order to minimize the deterioration of the quality of life. Senguta (2016) also added since the elderly do not possess a vigorous health anymore, therefore they need healthier and nutritional food than the general population for food insecurity may aggravate their existing health complications already weakened by emotional and economic distress.

Keller et al (2006: 317) further suggested the quality of life and the financial freedom of older persons should be vital considerations in development of a country. In order to achieve quality of

life for elderly and allow them to age with security, dignity and a continual participation in their societies, policy makers, when making decisions to address the basics needs of the elderly are, should examine specific indicators of food security such as the implementation of appropriate policies, programs and other initiatives that would bring about an understanding of how the patterns of food insecurity appear across differing demographics (Strickhouser, Wright & Donley 2015:5)

2.6. Interventions

Interventions on food and nutrition security at the international level are facilitated through the Committee on World Food Security (CFS) initiated by the United Nations (UN) Food and Agriculture Organization (FAO). The CFS enables the Civil Society Mechanism (CSM) forum where Civil Society Organizations (CSOs) from all over the world present and discuss food and nutrition security policy interventions (NPC, 2013: 53)

In a similar way, numerous interventions to improve the livelihoods of all the South African citizens do exist in the country from both government initiatives and policies and the civil sector such as the Non-Governmental Organizations (NGOs), Community Based Organizations (CBOs) etc. Warshawsky (2011:9). The government initiatives approved by the cabinet appear under the Social Development Department and offer a range of services. For example, through the social protection policy, the South African government have been consistently insulating the livelihoods of the poor by providing income security to individuals in order to foster social inclusion and sustain human dignity and development. This income comes in form of different grants attributed to suitably qualified individuals via the South African Social Security Agency (SASSA). In addition, the department offers many other services to the public such as counseling, shelters for abused women and children, skills training etc. not to forget the Expended Public Works Programs (EPWP) which offer temporary job opportunities as a relief to the structural unemployment (Department of Social Development, 2018 & Devereux, 2010).

Over the years, different other initiatives have seen the day and they include the National Policy on Food & Nutrition Security (NPFNS), Fetsa Tlala, the Household Food and Nutrition Strategy (Portfolio Committee on Agriculture, Forestry & Fisheries, 2016), the National Food Security Strategy (NFSS) (Hendricks, 2013:3) and the National Development Agency (NDA), National

Planning Commission (NPC), 2013: 58). These initiatives endeavor to eradicate poverty and promote food security in all households through their broad but enhanced and pragmatic programs. For example, NAD focuses on a pragmatic community development approach of funding the Civil Societies involved in poverty eradication such as the Food Banks (FBs), research, capacity building. NAD also offer free services to the members of the public like agricultural skills training, income generating initiatives such as job creation or assistance in business development planning, projects such as gardening and farming of the available land in the townships etc. (NPC 2013: 60). The bottom line is the South African public is exposed to a wide range of Social Services but for the sake of this study, I am going to detail only two of the kind of food and nutrition security interventions found in South Africa for older persons; one is the government social protection through the social grants, and the other is the civil organization called Meals on Wheels Community Services (MOWCS).

2.6.1. Social grants

Social grant is one entity of the social security measure established by the South African government. The social grant aims at directly alleviating poverty from vulnerable demographic groups; children, elderly, the disabled etc. through the unconditional transfers of cash (South African Social Security Agency SASSA, 2018).

According to SASSA Website there are eight types of grants five of which are means tested to target poor individuals. The means test is the test an evaluation done by SASSA to measure the individual's income and assets and to ensure these do not surpass the verges set by the government. In case they surpass then the applicant can't be eligible for the social grant. SASSA also evaluates and considers the income and assets of the spouse in case applicant is married. By combining both assets and incomes, SASSA ensures which household is indeed eligible for the grant. One of those eight grants is the Older Persons' Grant (OPG) for the individuals 60 years and older. This is also means tested grant and which currently stands at the amount of R 1780 per month per individual (Government of South Africa, 2019). Statistically, this grant has reached up to 3.2 million people in South Africa (Devereux and Wailer, 2017: 14).

Devereux and Wailer, 2017 studied the importance of grant towards improvement of food security to the recipients. Using the first round of the National Income Dynamic Survey (NIDS), of the year 2008 which involved 28,641 sampled persons, recipients of at least one form of social grant,

their analysis was carried on three groups of indicators of food security namely the indicators of physical consequences of hunger such as child stunting, questionnaire based indicators to check if individual happened to go to bed hungry in the previous month and the dietary diversity index which is an indicator to measure the quality of food consumption. They discovered that grant in itself is very effective and contributed positively towards food security and that it works way better when combined with a supplementary income. This finding validated previous studies for example Ferreira, (2017) reported that a study done by Southern Africa Labour and Development Research Unit (SALDRU) and the School of Economics at the University of Cape Town proved the OPG to lift many households from despondent poverty. OPG is indeed an important tool in poverty reduction in South Africa. According to International Labour Office (Ilo) (2016) there have been evidences of poverty reduction incidences among older persons from 55, 6% in 2006 to 36,2% in 2011. However, because South African household structure is often multigenerational due to apartheid legacy, traditional extended family and the high prevalence of HIV/AIDS among the working age population, most often the older persons become the primary caregivers for their sick children and the orphaned grandchildren. Thus, the meagre OPG which in most case is the sole reliable source of income is shared among all households' individuals. In this way the OPG targets household poverty rather than assisting older persons' independent living (Lombard & Kruger 2009: 50). Similarly, Devereux & Wailder (2017: 20-24) reported that the social grant could not achieve its originally intended purpose because of other factors not often mentioned like the inadequacy of the grant itself, bank charges, the unintended beneficiaries etc

However, ILO (2016) also reported that the OPG privileged gender equality in that eligibility was harmonized for both males and females but also it addresses the interracial disparities.

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2.6.2. Meals on Wheels Community Services (MOWCS)

The other way of tackling food insecurities among the vulnerable is through the creation of non-governmental organizations, whose main aim is to alleviate poverty and hunger among members of poor communities and especially older persons, by delivering prepared meals and social support systems. One of such organizations is MOWCS.

Originated from Great Britain during the World War II by a group of volunteers MOWCS expanded to United States in 1954 and later spread to the whole world (Campbell et al, 2014:1).

MOWCS is different from food banks (FBs) in that FBs aim at collecting, synthetization and (re)distributing of surplus, donated or unused food to those who need it (Warshawsky, 2011: 13) however, MOWCS may get supplied by FBs.

Meals on Wheels Community services South Africa (MOWCS SA) started in 1964. Initially, their services were limited to the elderly but they have now expanded to address extreme poverty in general and their beneficiaries include the most vulnerable, the poorest and the disabled such as women, children and elderly (Ryan & Madzana, 2015: 5). According to the MOWCS SA Website, MOWCS SA is a fully fledged and recognized nonprofit organization with currently 209 branches scatted in all the nine provinces of the country. Their Statistics on their webpage shows 31 million of meals served per annum,700 service points, plus 280 vehicles, plus 1400 voluntary helpers,2 old age homes, 6 retirements villages, plus 120,000 Christmas dinners served, plus 6554 Christmas hampers distributed each year countrywide. However, the variance nature of the joining and leaving pattern either through death or the relocation (e.g. moving to an old age home) of beneficiaries makes it difficult to have a fixed membership figure. At the time of data collection researcher was informed that MOWCS Brooklyn had a total of 162 memberships which was expected to increase or decrease. MOWCS is partially subsidized by the government and owned and run under the Seventh-day Adventist (SDA) church. Its mission is to fight hunger and extreme poverty through the delivering of social services and prepared meals to the needy.

Though MOWCS is well established in developed countries, more studies on its impact are needed. There are however, a few studies undertaken in USA, Ireland and Canada to monitor and evaluate its services to the community. These studies have found it to be valuable and a needed help within poor communities and have urged for its sponsorship by government and private funders, because MOWCS programs offer great services to the communities, yet are financially constrained (The health trust report brief, (2009) & O'Dwyer, & Timone, 2008). For instance, research done on behalf of the National Council on Ageing and Older People (NCAOP) of Ireland, O'Dwyer, & Timone (2008) found Meals on Wheels services had a dual importance of being the source of both nutritious meals and social contact and connectivity to the wider community. Its services have both preventive and restorative effects on the health status of the elderly. In Canada, the dieticians of Canada (2005) proved that MOWCS greatly assist older adults to have improved food security through their home delivered meals services and other social services they offered to the elderly. Furthermore, in the United States, Soltas (2015) and Aceves & Wellin (2016) found that

participation by the elderly in the meals delivering programs increases their food security and reduces social isolation. The 2009 report brief by the health trust confirmed that MOWCS contributed positively to the overall well-being of the older persons through their nutritious meals that improves health and their social services that reduces loneliness and isolation. In addition, MOWCS enable them with independence and the opportunity to remain in their homes and their communities. In this way, MOWCS contributes towards the positive health of older people and in the long run towards the development of the country.

2.7. Gaps that the research intends to fill

In South Africa, the lack of literature about MOWCS and the older persons' experiences with food security means that there are plenty of knowledge gaps to fill about this NGO.

To the knowledge of the researcher, so far there is no national or local surveys have been conducted to assess all the services of MOWCS and its contribution towards the promotion of food security within its communities of practice. That on its own constitutes a main gap that this research intends to fill. In other countries where MOWCS operates, research has reported poor implementation of the MOWCS programs and its inaccessibility to many in the wider community (Campbell at Al, 2014:1). Also, the membership fee that is required upon joining the centers, as well as the cost of the meals (though this is always kept at a minimum), are thought to work in excluding some elderly who cannot afford to pay for the food that MOWCS serves.

WESTERN CAPE

CHAPTER 3: CONCEPTUAL FRAMEWORK

According to Jabareen (2009:50), conceptual frameworks are products of qualitative processes of theorization. Jabareen continues that a concept has distinct, heterogeneous yet inseparable components that define it and which may be originating from other concepts which explains the relationship may exist between them. Every concept has a history attached to it and should be analysed within the parameters of its components. Similarly, Adom; Hussein & Joe (2018:439) argued that a conceptual framework is a network of interlinked concepts and theories that together provide a comprehensive understanding of a phenomena but also used to promote and synthesize the knowledge taken up by researcher. In other words, a conceptual framework demonstrates what researchers are anticipating to find through their research, including how the considered variables might relate to each other.

The food security conceptual framework has four interlinked yet distinct components also referred to as dimensions or pillars. It is with this light, that this conceptual framework forms part of this study in order to investigate, analyse and interpret the role MOWCS plays towards food security promotion among the elderly in Brooklyn Cape Town.

3.1. The four dimensions of food security

Human safety and wellbeing is measured against the four dimensions of food security concept. But what is food security and how is it achieved? Food security as a concept was first defined in 1974 at the World Food Conference and postulated the uninterrupted availability of adequate food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices (FAO Policy Brief, 2006:1). But with the time, this definition underwent through different improvements and the currently known is the one amplified by FAO at the 1996 at World Food Summit which extended the previous one to include nutritional value and food preference. Thus the definition became: "food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life" (Pinstrup-Andersen, 2009:5). This definition implies four distinct dimensions that strongly connect to each to ensure the full achievement of

food and nutrition security (FAO Policy Brief, 2006:1). This dimensions are food must be available, accessed, utilized and stable both in quality and quantity.

These concepts demonstrate food and nutritional security however influenced by the context and behaviour of the households' members towards food. Therefore, when attempting to promote the welfare of households and individuals through the required nutritional needs, policy makers have to unpack each pillar and understand the strong connection between these concepts (Sassi, 2018:6). Following is the frame that portrays a model of how all these concepts are interlinked to other.



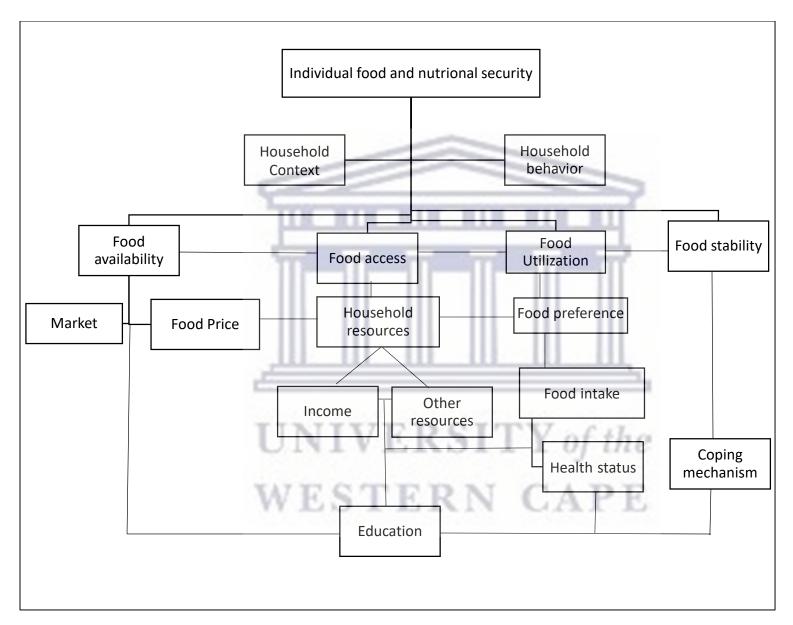


Figure 1: Food security model

Source: Own compilation

Food and nutrition security begins at the individual household context and the behaviour of the households' members that is; the intra household's dynamics in regards to food plays a crucial role. Each of all of the pillar demonstrated above is a necessity towards the realization of food security but cannot be not a stand-alone; the connection to others is a must to bring about the completeness of food security towards realization amongst individuals and or households. To illustrate: a person can only access food that is available and food can only be stable when the available food is there all the times. Below are the detailed explanations of each pillar.

3.2 Food Availability

The availability of food is defined as the sufficient physical amount of food (measured for example in tons of crops harvested) of appropriate quality supplied at national or local level or through import including food aid (Scialabba, 2011). The availability of food acts upon the prices of food supplied to the markets which in turn influences the power of purchase and the affordability of a household depending on its income (Sassi, 2018:35).

At a national level, food availability quantifies the appropriate quality of food supplied either through domestic production or imports including food aid. These are in turn influenced by domestic policies in terms of food production such as agricultural subsidy programs, food self-reliance, policies attracting agricultural investment, and policies regulating international trade opportunities (FAO, 2006). Food availability is also conditional on the state of roads and markets infrastructure as well as the degree of market integration and local markets institutions. In fact, food availability dimension is a reflection of the supply side and will consequently be subjective to all conglomerating factors of the domestic food supply and imports (Pieters; Guariso and Vandeplas, 2013:13). Food availability plays a key role towards the realization of food access as described below.

3.3 Food Accessibility

A household is considered to have access to food when household members have sufficient resources to obtain the food of quality and quantity and of their preference to ensure a safe and nutritious diet (Pieters; Guariso and Vandeplas, 2013:13 & FAO, 2006). As it is impossible to

access food that is not available therefore, food access is conditional to food availability at both local and national level. Yet, the presence of food does not necessarily mean the access to food because access to food is primarily contingent on household resources, which is influenced by the income and other resources that a household may acquire. Another important point to note is household resources differ from a household to another. These differences depend on the setting patterns of a household and may include, assets, human, and natural resources which are allocated to different income and no-income activities (Pieters; Guariso and Vandeplas, 2013).

Other resources include other income generating activities that contribute to the households' power to purchase food. These include natural resources such as clean water, land, fields, and forests which form part of food producing process and allow households to acquire food directly or indirectly. Moreover, household's resources can be supplemented by other income types such as cash transfers from relatives, friends, or state grant (Sassi, 2018:10 & Pieters; Guariso and Vandeplas, 2013).

The food price regulates the quality and the quantity of food that a household can purchase with its income. Often food prices are subjected on the domestic food prices generally established by the supply and demand patterns of the local markets (Sassi, 2018).

Education cuts across all the four dimensions and assists with better decision making. With food access, education has been proved to enhance income generation and food production opportunities (Mutisya, Ngware & Kabiru et al, 2016) in that education is linked to the development of cognitive skills that are likely to assist individuals in developing income generating activities and food production (WFP, 2007 Sithole and Dinbabo, 2016). Thus, enhanced cognitive skills is attached to high probability of income increase and employment opportunities. Education also plays a key role for better decision-making towards the allocation and distribution of resources, thus leading to an increased productivity (Pieters; Guariso and Vandeplas, 2013). Education also serves as guide to a better knowledge concerning food nutrition and health practices and choices. The health status of individuals influences their ability to learn and work. With a good health status, individuals will be able to lengthen their labour time thus more productivity. In turn, they earn an income to support themselves and or their family members. Consequently, the increased resources made available by a better health status can be subsequently invested in an

improved diet and hence lead to further health improvements while a deteriorating health will likely lead to food insecurity (Mutisya, Ngware & Kabiru et al, 2016).

3.4 Food Utilization

Food utilization is defined as an individual's dietary intake and the ability to absorb the nutrients that are in the food consumed (FAO, 2006). Thus, food utilization relates to both diet quality and diversity. Specifically, a person's diet must be of both adequate quality and quantity to satisfy both subsistence and the needed daily energy for a healthy and active life (WFP, 2007).

The individuals' health status can be an indicator of food utilization realization or not. The challenge may appear when individuals have other medical conditions which obstruct their bodies' capability to absorb and transform the consumed calories into energy (Devereux & Wailder, 2017:2). Food intake is subjective to the individual's food preferences which are in turn influenced by social, cultural and religion, and even political factors. However, food preferences are often a result of income and food prices which limit the person's choice of what they need most (Pieters; Guariso and Vandeplas, 2013).

Food utilization is also defined in terms of food safety; the hygienic standards of food, from production to preparation, food storage and processing and even transportation counts much towards food security. In this way food utilization brings out the importance of non-food into food security (FAO, 2006).

3.5 Food Stability

Well, if the available food is accessed and utilized accordingly, the crucial point to focus on would be how people will then continuously have access to adequate food all the times. This brings in the concept of food stability which is defined as the stable availability and accessibility to adequate food at all times by all the people without sudden shocks interruption (FAO, 2006). Unfortunately, food stability can be undermined by seasonality or disruptions to food systems due to natural disasters, weather variability, price fluctuation, civil insecurity and other shocks (Kalkuhl & Torero, 2016 and Tirivangasi, 2018). These disrupting factors may be of temporal or permanent nature. When the negative shocks hit such as food price rise, be it for temporal or long period,

majority poor households have a higher probability to become food insecure (Devereux & Wailder, 2017:18).

To deal with food insufficient for temporal period, people adopt alternative strategies of surviving in order to reduce their vulnerability. The most often opted for coping strategies include eating less, skipping a meal or selling an asset, not sending the kids to school, etc (Sasson, 2012:9; Devereux & Wailder, 2017:25). These strategies determine the extent of the household vulnerability though they worsen the situation. The vulnerability period may take long time to surpass and can even create an indefinite circle of poverty, hence the need for resilience. Resilience is the time a household endures its food insecurity situation while trying to move out of the situation and renormalize its food security as was before the shock (Pieters; Guariso and Vandeplas, 2013). During this period, strategies may include changing economic focus and trying other alternatives. For example, when a severe drought destroys the crop, one may turn to other economic activities that are practical in that moment and place.

However, these pillars have to be scientifically measured with qualitative tools or indicators that serve as guide to a full attainment of food security. The assumption is that if an individual consumes some types of edible food then he/she is getting enough calories for healthy and productive lives. In this way food security has been achieved. It is therefore the reason why the researcher is going to use one of the food indicator called dietary diversity Index (DDI) in order to determine the quality and the quantity of the food older persons receive from Meals on Wheels Community Services in Brooklyn Cape Town

3.6 Dietary Diversity Index (DDI)

The DDI is defined in terms of the quantity of different food items consumed over a specific time period by a household or individual as a method for ascertaining variety and nutrient adequacy of diets (Ruel, 2002:10 and Sealey-Potts & Potts, 2014: 2). The DDI is considered as proxy to quality diet. Quality diet is a balanced diet with variety of food to meet the nutritional requirements for the production of essential energy to remain active and health promotion (Kennedy, 2004), quoted in Dlamini (2013:23). In addition, Thornton (2013: 13) suggested different foods contain different nutrients which are essential nutrients for a balanced diet and which cannot be provided by a single food therefore a range of dietary sources is required.

The DDI has been developed in order to facilitate the qualitative measuring of the household or individual access to variety of foods and the consumption thereof (FAO, 2017). The DD has got different indicators depending on the researcher's objectives. There is for example individual dietary diversity score (IDDS) used as a proxy indicator to measure the nutritional quality of an individual's diet. There is also HDDS used as a proxy indicator to measure the socio-economic level of the household. The differences between these reflect from the list of food groups used to construct the HDDS and IDDS e.g. for women or children (Swindale & Bilinsky, 2006: 7).

The DDI is measured by summing up the recalled number of food items consumed over a reference period often between 24hours and 15 days (Ruel, 2002:10). The indicator used is the classification of food items into 12 distinct groups: cereals; tubers and roots; legumes, nuts and seeds; milk and milk products; eggs; fish; meat; oils and fats; vegetables; fruit; spices, sweets; condiments and beverages (Devereux & Wailder, 2017; Thorton, 2013 & FAO, 2011, Labrados et al, 2011: 891). To determine household dietary diversity score, a questionnaire is created which ranges from 0 to 12, where 0 means that no food was consumed at all and 12 indicates maximum dietary diversity. Thresholds are set to categorise households into one of the four dietary diversity categories: (1)-very low dietary diversity with only 0 to2 food groups; (2)-low dietary diversity with 3 to 4 food groups; (3)-borderline dietary diversity with 5–6 food groups and (4) high dietary diversity from 7 to12 food groups (Razes & Dop, 2011). The higher the number of food groups consumed by an individual or a household, then the more food secure is that individual or that household.

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CHAPTER 4: DESIGN AND METHODOLOGY OF THE STUDY

A research design is a plan according to which research participants are obtained and information is collected from them. In it, researchers describe what they will do with participants with a view to reach conclusions about the research problem (Welman & Kruger, 2001: 45). Due to the research questions posed by this inquiry, which are exploratory in nature, this study used qualitative research methods. Silverman (2014) defined qualitative research as the study of what people do in real life contexts, which is done through purposeful conversations, observation and recording through diary keeping, video or audio taking. Welman & Kruger (2001: 45) continues "Qualitative research involves verbal description of real life situations such as personal experiences. It describes phenomena in context, and interprets processes or the meanings that people bring in. It uses theoretically based concepts and seeks understanding through case studies rather than generalization". Aceves & Wellin, (2016:24) stipulated qualitative methods are the most appropriate when assessing local senior perceptions and evaluating a Senior Nutrition Program. In this way, the study will seek to gain a deeper understanding of the experiences of the elderly beneficiaries of the MOWCS in Brooklyn, towards hunger and food security.

4.1. Research site selection

Brooklyn is a suburb of Cape Town in the Western Cape Province, built during apartheid era as home for middle class white people. However, according to Census (2011) Brooklyn is now home for 10,941 people, a combination of White, Coloured and Black people (who are mainly immigrants from other African countries). Housing in this suburb reflects urban decay of the apartheid legacy. For this reason, Brooklyn is on the list of areas that the City of Cape Town intends to revamp through the Organizational Development and Transformation Plan (ODTP) for urban transformation and modernization (Cape Times: 2017). According to the Urban Renewal Strategy plan (2000) the area seems to have been neglected by government for a long time. This explains the current economic state of Brooklyn as a low income area characterized by many informal businesses along its major traversing Koeberg Road. These informal businesses are mainly operated by foreign immigrants and some are illicit which explains the prevalence of high crime rate, secretive gangs, drug dealers, human trafficking and prostitution in the area (Weekend Argus, 2018).

This site was purposively chosen due to a couple of reasons. First, according to the researcher's knowledge, no study has ever been undertaken before in the area regarding food security among the elderly. Second, as an urban area, people do not have capacity to grow their own food thus they depend on the markets and shopping centers to acquire food. Thirdly, there are no shopping centers at the Brooklyn nucleus; shops are located at a distance, requiring a taxi fare. This adds pressure to the already financially strained elderly residents, whose main income may perhaps only be the OPG. Lastly, due to the researcher's limitations in terms of time and financial means, the location was appropriate as it was easily accessible by researcher.

4.2. Participants /Sampling

In order to maximize heterogeneity across different characteristics such as gender, marital status, etc., a sample of 10 individuals, beneficiaries of the meals served by MOWCS were selected through the use of purposive sampling.

Purposive sampling, also referred to as a judgmental sampling, is a nonprobability sampling technique which serves to produce a sample that can be logically assumed to be representative of the population (Lavrakas, 2008).

Individuals were chosen on the basis of the following: willingness to participate and give informed consent, registration as a beneficiary of MOWCS Brooklyn, and coming to the MOWCS on Wednesday.

From the 10 beneficiaries who were sampled to participate in individual interviews, five participants also agreed to participate in a focus group discussion that was set up to gather societal level data about MOWCS.

In addition to the beneficiaries of MOWCS, 3 individual staff / volunteer were interviewed as key informants.

4.3. Data collection

In social science research, there are different tools used to collect the data; survey, interviews, focus groups, observation, (data) extraction and secondary data sources (Harrell and Bradley, 2009: 7). To examine participants' experiences and their opinions on the meals and services

received from MOWCS as well as the social importance of the Centre in Brooklyn community, the study collected data through the use of individual semi structured interviews and a focused group discussion. Data was collected over a period of 11 weeks from August to October 2018 and both the individual interviews and the focus group discussion were conducted in English and audio recorded and were later transcribed for a better analysis.

4.3.1. Semi Structured interviews (SSI)

Semi-structured interview is defined as a qualitative method of enquiry or data collection strategy in which the researcher asks informants a series of predetermined but open-ended questions. The discussion is usually one on one between the interviewer and the individual (Harrell and Bradley, 2009: 7). Open ended questions prompt discussion which enable the interviewer to explore any particular themes or responses that arise during the discussion. Open ended questions do not limit respondents to a set of predetermined answers but allows respondents to discuss and raise issues that the researcher might not have covered (Ayres, 2012). In this regard a set of questions was developed to and served as guide to the interviews. The questions were divided into two sections (see Appendices A and B). The first section gathered information about participants' personal details while the second section explored their experiences with MOWCS. The questions helped answer the questions regarding who the participants were and how MOWCS was or was not contributing to their food security. The design and rephrasing of the question made easy by the open ended question structure provoked relevant information from the research target.

4.3.2. Site visitation and observation

Prior to the commencement of the interviews researcher visited MOWCS Brooklyn a number of times in order to get acquainted with the Centre's environment but also as an external observer and thus exhume more information on the role played by MOWCS Brooklyn on food security among older persons. A few things were observed such as meals preparation and packing and dispatching, food donations intake and people coming in to get a meal. The data collected from observations was compared with those gathered through other instruments in order to ensure validity and reliability, also to make sure that there is consistency in the data collected through different instruments.

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4.3.3. Focus group discussion

A focus group interview as a qualitative technique of collecting data comprising of individuals usually less than 10 individuals brought together by the moderator (researcher). These individuals share characteristics as their discussions focus on a given issue or topic. A focus group's primary purpose is to collect high-quality data in a social context which help understand a specific problem from the viewpoint of the participants of research (Dilshad and Latif, 2013:192).

Krueger (2002:4) asserted that a focus group provides "a more natural environment than that of individual interview because participants are influencing and influenced by others- just as they are in real life. In this way data from the focus group reinforces the data obtained through other tools.

For the purpose of this study, the focus group discussion with 5 beneficiaries from MOWCS Brooklyn was held in one of their rooms. The group members were selected using the purposive sampling method from beneficiaries who have come to the Brooklyn MOWCS club day; Wednesday. The researcher guided the discussion using a semi-structured checklist of questions (see <u>Appendix C</u>) and a tape recorder. The discussion provided qualitative data on the varieties of attitudes and opinions of beneficiaries towards MOWCS services and the meals they received.

4.4. Data analysis

The collected data were analysed using thematic analysis methods. The interviews were first transcribed then analysed using the Open Code Software. Open Code is a software created by Umeå University to assist in coding of qualitative data (Umeå University, 2018). In a thematic analysis, words and sentences that have meaning for the research are identified and labelled as codes. The codes are then collated into categories or subthemes. These subthemes are further grouped under main themes. For this study, the main themes were the two research questions that the study sought to answer.

4.5. Scope and limitation of the study

This research sought to investigate and assess the role played by Meals on Wheels Community Services (MOWCS) towards the promotion of food security among the older people. The study was limited to the elderly beneficiaries of MOWCS Brooklyn in the Western Cape Province of South Africa. Thus, the findings of this study will not be generalizable to all older persons in the Western Cape, only to those who participate in programs such as MOWCS. The second limitation has to do with language; only participants who were conversant in English could be sampled in the study, because the researcher is not familiar with other spoken languages in the Western Cape, and did not have resources to hire an interpreter.

Individuals were chosen on the basis of the following: Their willingness to participate, Informed consent, they are beneficiaries of MOWCS Brooklyn and they come on Wednesday to the Centre. From this sample some of them were also willing to participate in the focus group which was made of five people only. Finally, in order to collect the information in regard to the experiences of MOWCS Brooklyn a sample of 3 individual staff / volunteer were interviewed as key informants.

4.6. Ethical Considerations

Ethical approval was obtained from by the University of the Western Cape's Economics and Management Science Faculty's Post Graduate Research Board and the Senate Research Committee. Participants were given sufficient information of the purpose of the research prior to commencement of interviewing. Participants were informed that their participation was fully voluntary and that they could withdraw from the interviews any time had they wished to do so. There were little to no risks that participants were exposed to in the course of their participation in the study. This was because this study was not sensitive or asked questions that may have resulted in the harm for participants. The study was not invasive and finally, participants in the study were kept anonymous. This means that no name will be given instead pseudo names were used.

4.7. Researcher's reflexivity on the research

This section presents the researcher's reflection on those factors that may have shaped the findings, beyond the interview and focus group discussion instruments. When a qualitative researcher goes out to conduct research, they may come back changed by the research (Palaganas, Sanchez, Molintas, &Caricativo, 2017: 426). However, for Attia & Edge, (2017:38) the influence is reciprocal: "...we observe in action: we step back to reflect and step up for action...We do something and then in turn it does something to us and then changed as we are we return to take our next action". In order words both researcher and the research influence each other.

In qualitative research, a reflectivity section is a very important part of the research in that in it the researcher gives a detailed account of how both researcher and participants may have influenced the research findings (Roller, 2018). Reit (2012:32) quoted in Palaganas, Sanchez, Molintas, & Caricativo, (2017: 429) posits the process of reflectivity should be treated as an opportunity to enrich your research and improve the lives of people.

Reflexivity is defined as researcher's self-awareness (Attia& Edge, 2017:38). Personal reflectivity is the ability to give a full and an honest account of the research process as much as possible, in particular explicating the position of the researcher in relation to the research (Palaganas, Sanchez, Molintas, & Caricativo, 2017: 430). Thus a researcher sits down and reflects on his/her personal behavior and the actual field conduct. Below are my own reflections as the researcher who conducted this study.

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4.8. Researcher's interaction with the research

There are several emic and etic characteristics that may have impacted on the research process. Emic attributes refer to those characteristics that make one an insider when conducting researcher among study participants. In other words, those characteristics that make one similar to the research participants in some ways. Etic attributes on the other hand, refer to those characteristics that make one an outsider or different to the research participants. Below I reflect on how etic characteristics to do with my race, gender, age, education, nationality and the socioeconomic background may have influenced the data collection process.

Starting with my race and age, as a young, Black woman interviewing old, White folks was not just simple. Initially, my physical appearance could not give them an indication that I was a

researcher, because I was dressed casually and consequently some prospective participants could not see the importance of doing an interview with me. Some were hesitant but participated out of curiosity; it was the formal starting of the interviews with the consent forms and information sheets bearing the University logo, and the contact details of the Professor who is supervising my study that convinced them. Some expressed their thoughts and said: "uumm that thing is well organized". As majority of them had working class background, they expected a researcher to be formally dressed in a suit as though at a formal event.

To overcome the barriers imposed by my etic attributes, I visited the MOWCS a number of times prior to the commencement of the interviews. Thus, I earned the confidence of the staff, because they became acquainted with me and came to respect me as a researcher interested in making known what they do. As result the staff encouraged beneficiaries to participate in the interviews.

It was easy for them to pick that I am not South African because of my accent. This made them interested in getting to know more about me and why I was doing the study, thus making our interaction easy and comfortable during the interview process.

While growing up I spent a lot of years with my grandmother and I still enjoy the privilege of having her alive. She was a strict but loving and kind person who taught me much wisdom. This made me develop a passion for older persons and guided the choice of my topic. I know they talk a lot for they want to recount all their life stories, but I pay them patient and delightful attention when I chat to them. This also impacted on the interview length because an interview which was supposed to last 30 to 45 min would last for more than an hour in some instances. However, the long interviews almost interfered with the voluntary participation of prospective elderly participants who were aware of the interviews because they thought it is the researcher who was prolonging the interviews and depriving them a time to socialize. Hence some declined to participate; which inconvenienced me to always explain that the interviews were only between 30 to 45 min.

Their personal life experiences such as loneliness, kids have abandoned parents, for some the Centre is their only hope made me wish to support the Centre in my personal capacity. It also challenged me to think about the future: "If I will be blessed to live long, how will it be?"

Taking from my personal life as single parent and full time student without a bursary, I struggle financially. Thus I developed a sympathy towards the elderly participants who didn't have enough

food and who would sometimes experience food insecurities. Initially it felt ironic to undertake such a study on food security however, after going through the literature and discovering that the experiences of older persons with hunger was under researched, I felt this study was urgently needed. With the Centre's challenges, I reassured them that the study will undeniably produce a positive impact which will motivate policymakers and development implementers to act on their behalf accordingly.

CHAPTER 5: FINDINGS

The findings were grouped under two main themes which are the two questions that the research set out to explore. Then the findings were analyzed through four subthemes which are the dimensions of the food security framework that anchored the study. The first theme looked at the promotion of MOWCS Brooklyn on food security among the elderly and holds two subthemes: food availability and food stability. The next theme explored MOWCS Brooklyn beneficiaries' experiences with food security under the subthemes of food access and food utilization.

5.1. Demographic characteristics

Table1: Summary of demographic information from beneficiaries of MOWCS

No.	Date of interview	Age	Race	Gender	Marital Status	Source of Income	Residence type	No. of people @ home	Number of years receiving meals @ MOWCS
1.	12/9/18	82	Colored	Female	Widow	Government Pension	Bedsitter in Complex	1	10 years
2.	12/9/18	81	White	Female	Widow	Pension	Bedsit	1	10 years
3.	12/9/18	77	White	Female	Widow	Pension	Retirement Bedsit	1	13 years
4.	14/9/18	84	White	Male	Married	Pension	Own house	5	20 years
5.	19/9/18	83	White	Female	Widow	SASSA Pension	Rent a flat	5	3 years
6.	19/9/18	79	White	Female	Widow	Pension	Rent a flat	1	8 years
7.	19/9/18	91	White	Female	Widow	SASSA Pension	Communicar e village	1	4 months
8.	19/9/18	67	White	Female	Married	Pension	Own house	2	3 years
9.	17/10/18	60	White	Female	Married	Pension	Own house	3	1 year

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10. 17/10/18 61 White Female Widow Pension Rent a flat 2 2 months

Table2: Summary of demographic information from MOWCS Staff

No.	Date	Age	Race	Gender	Highest	Position e.g. Volunteer,	No. of years
					Education(Grade)	driver, Admin etc	worked at
							MOWC(Brooklyn
1.	10/9/18	69	White	Female	11	Manager	30
2.	11/9/18	59	Coloured	Female	8	Chef	29
3.	19/9/18	74	White	Female	8	Retired volunteer driver	20+

Table3: Summary of key demographic variables for beneficiaries

KEY DEMOGRAPHIC VARIABLES	$\Omega\left(\% ight)$
AGE	30% Aged 60-70
	20% Aged 70-80
اللل	50% Aged above 80
GENDER	90% female
RACE	90% white
SOURCE OF INCOME	100% lived on OPG
TYPE OF RESIDENCE	30% own a home
	30% rent a flat
	40% retirement village
MARITAL STATUS	30% married, 70% widowed
N OF PEOPLE AT HOME	50% live alone, 50% live with relatives

5.1.1. Description of the key variables and their demographic characteristics

From the table above, it is noticeable that MOWCS beneficiaries were senior citizens aged 60 and above. This lines up with MOWCS policy, that elderly people are their primary focus, although they also target to alleviate food insecurity within the community as whole (Ryan &Madzana, 2015: 5). All of the participants were recipients of the OPG, and none had additional income. Depending only on government pension for a living can be a sign that the participants had a lower

or middle working class background, which further signposts financial constraints. These findings are also supported by Seekings & Nattrass (2005).

Majority, (90%) of the beneficiaries were female. This can be viewed as the unbreakable cycle of women's vulnerability, as Stroebel, (2018) posited that women are the most vulnerable to poverty and food insecurity in poor communities. The vulnerability of women in this study is further indicated by the fact that more than two thirds of the participants were widowed. Being a widow and living alone can result in depression, as postulated by Jeon, Choi & Cho's (2017) research findings among elderly widows in Korea. This may be the reason why these respondents joined the MOWCS; in addition to seeking food, they might have joined in order to socialize with others.

The race of the beneficiaries was not balanced according to the South African race groups. Ninety percent (90%) of respondents were White, and 10% Colored and 0% Black. However, according to the statistics both White and Colored groups are minorities in the country, whilst Black people constitute a majority (STATS SA, 2017). Perhaps this is due to the fact that Brooklyn was built during the apartheid era for middle class White people (Urban Renewal Strategy, 2000). Though other race groups have infiltrated the area over the years, White people remain the most dominant (Census 2011). On the other side, it may be that due to MOWCS' origins from the West, its services are predominantly known by White people (Campbell et al, 2014).

5.2.MOWCS Brooklyn contribution towards food security among older persons

5.2.1. Food availability

To determine the availability of food at MOWCS Brooklyn, I reverted back to the definition of food availability according to Scialabba (2011) that food availability is the sufficient physical amount of appropriate food quality supplied at national or local level or through import including food aid. This enabled to conceptualize MOWCS Brooklyn as de facto food local food supplier for the older person in the Brooklyn community. With Pieters; Guariso and Vandeplas, (2013:13) claims that food availability is the reflection of the supply side regulated by the supply and demand patterns; the same patterns were also investigated at MOWCS Brroklyn and the following were noticed:

In terms of quantity, the findings indicated that MOWCS Brooklyn always had enough food for their beneficiaries. The frequency of receiving meals varied from once a week to five days a week depending on beneficiary's choice. A white male participant explained: "... *I eat here every day*...."

Other female participants also explained:

"I receive meals twice a week plus the day I come here at the club so it's three times a week."

"I come here on Mondays, Wednesdays and Friday, sometimes on a Tuesday. Roughly four times."

"...the service Centre is open every day, the members can come and get the meals every day."

"The elderly then cannot go hungry because there is a lot of goodies here..., its life saver actually."

Some beneficiaries indicated they would never get hungry when the Centre is closed during weekend. They would simply call the manager who immediately sends food to them. This is reflected in the statements below:

"And also the center when they know you are having a battle, they immediately send you bread and things like veggies and fruits always."

"You just need to lift up the phone and tell them or send someone to tell them you are having a battle and they will send something immediately."

"...if you are in trouble they will send Michael or someone down with something for you."

Clearly, the Centre's function in the lives of their beneficiaries, extend beyond mere provision of meals; it is the 911 emergency service in the lives of those they serve. Whilst this is commendable, it raises questions about the capacity of organization and its employees to become so many things to so many vulnerable people.

The food quantity was also reflected in the food portion sizes that the beneficiaries were receiving. Majority of respondents testified that the food portions were enough to satisfy their hunger needs. MOWCS Brooklyn was said to serve only lunchtime meals, however, some respondents indicated that the one meal was enough to serve for two meals, in that they would eat one section of the plate and leave the other for supper or for next day's meal. This is an example of what is known as a

coping strategy in food security studies (Chagomoka et al, 2016). Coping strategies refer to those actions that the food insecure take to ensure they have some food, including stretching meals to accommodate more than one mealtime. However, in the case of the MOWCS beneficiaries, this strategy may have also had to do with the generous portions served by the organization, making it difficult for beneficiaries to finish the food in one mealtime.

A female respondent explained: "...One portion of food from them I must eat on it twice. It's not a huge portion but I am satisfied"

Another female participant explained about the Wednesday meals when they come to the club: "...Some of them bring their little container with, they can't eat such a lot so they eat half and they take the half home and they eat as supper".

The food portion size is an important aspect of food security, as it helps determine the level of hunger satisfaction (Dietician of Canada, 2005:7 & FAO, 2017:48). Though MOWCS staff could not precisely give the portion size of their meals, they however admitted it was not too little nor too big.

Pointing to a food container, a cook explained: "That's one meal in that container, some of the people find it too much so they divide it into two meals so they have something maybe in the evening. Some other people have a massive appetite but the problem is this, we are required by law to give only a certain amount. We can't cater to people with big appetites or those with a small appetite."

MOWCS Brooklyn follows the government guidelines on food portion sizes for the elderly; this outlines the amount of food per food group (where applicable) that they should dish out in a plate.

For example, starches and grains 1 cup; med potato, pumpkin 1/3 cup; cooked rice, pasta or samp 1 cup; slice bread or rolls ½; 3 cracker biscuits; 20 g cereal; ½ cup porridge. For vegetables 1 cup; ½ cup onion, carrots and beet. For fruits 1 cup fruit salad; 1/3 glass fruit juice; 1 cup of low fat milk, low fat unsweetened yoghurt or buttermilk. For meat and meat alternatives, 30 g low fat meat and fish or soya product 60 g; 1 egg in a week. Only 1 tea spoon of oil or fat or margarine and 30 g avocado as a daily portion (MOWCS Brooklyn source).

O'Dwyer, &Timone (2008) suggested the Food Atlas as the most useful tool when measuring the food portion size. The Food Atlas use various photographs portraying different food portion sizes which guide the user to a precise estimation of food portion sizes.

The quantity of the food at MOWCS also transpired through the meals delivered. A staff explained: "I would say we serve about 400 meals a week"

In the study it was clear beneficiaries viewed MOWCS as their only reliable source of food. When asked what would happen to them if MOWCS stopped running, responses were wide-ranging:

"I won't have enough food, I will lose weight, I won't know what to cook, I will never remember the menu, I would think of all these stuff I won't be able to do"

Another female participant said she would eat but not enough: "[silence] ... I would be able to eat but not the variety that I get here, the nutrition that I get here. It would probably just be a sandwich and a cup of tea, whereas here I get a balanced diet. Plus, pudding [Laughing] they know me already"

Some of MOWCS beneficiaries also claimed to receive free snacks from the Centre or buy some goodies at a low price:

"And we get bread from Woolworth. And we get rolls from Woolworths, and lettuces and cucumbers and we get a lot of apples from Woolworth. And there is absolutely nothing wrong with that. Meals on Wheels is very, very good"

Free goodies can be explained as provision from donations. The staff indicated that sometimes they get more than they can handle and they give them away to avoid food perishability.

"What we do when we get a lot of donations we use and keep here what we can handle and the rest we share it among the members. We hand out whatever we get we share. What comes in we will use it up because it's also a big help as far as the cost of the meals is concerned"

However, there were a few beneficiaries who reported that they did not to receive free snacks from the Centre, instead they bought them from the local shops: "Well I buy, you know I buy Provita Biscuits or I buy sweets, when I get money I do shopping and I buy sweets, fill my jars that I got at home and then in the cupboard I will put my biscuits and maybe a packet of rusks so I can have coffee with it."

Perhaps this can be explained as food preferences. The quality of food was also rated very good and healthy, as elaborated more in the section on food utilization.

From the above findings, one can conclude that there is enough food available at MOWCS Brooklyn. This is in line with what is published about other MOWCS in other countries and settings. Research done by Warshawsky (2011) and O'Dwyer, &Timone, (2008) claimed that beneficiaries could not lack food as long as they seek help from MOWCS.

5.2.2. Food stability

Food stability refers to the permanency of available and accessible food in the markets by the households, without any risk of abrupt halts e.g. sudden shocks caused by climatic change or war etc. (FAO, 2006).

The study also explored the predictability of food stability at MOWCS Brooklyn and its services as a food provider for elderly beneficiaries, as well as the beneficiaries' strategy to maintain access to food.

Food stability at MOWCS Brooklyn depends on its existence as an independent organization. It is difficult to predict the durability of an independent organization, given the rise and fall of many organizations of such kind (van Wyk, 2018). However, some factors, such as long years of service, can make us fairly assume that the organization will last for many more years. In fact, MOWCS has been operating in South Africa for more than 50 years and has already established a strong networking foundation across the country. A fully fledged and recognized nonprofit organization, MOWCS is an umbrella term for 209 independent branches operating in all the nine provinces of South Africa, run by the SDA church (MOWCS SA, 2018).

MOWCS Brooklyn has been operating in the area since 1986, now with 34 years of service. The manager narrated the following history:

"Umm.... I can say, in 1986a survey was done to see if it was viable for us to open up—a service center or a Meals on Wheels. The survey was then completed and it was found that there was large amount of senior citizens living in the area and the need was for MOW. As subsequent to that umm... We then found that the people needed to socialize. And that's when we decided to open up the Centre for people come, have a meal, socialize, play games and also we get people to talk about their various subjects and that".

In addition, 40% of beneficiaries have been members of MOWCS Brooklyn for 10 years and some even 20 years and above.

This long experience can be looked at as a strong and a positive foundation for a better future. Warshawsky, (2011:26) supported this, claiming that MOWCS SA has developed its strong reputation for many years of work. Another factor that may make it likely for MOWCS to last for many more years to come is the fact it has already established strong ties with many big firms and food banks, which supply them with donations.

A cook expounded "Also you must remember we are a non-profit organization, so a lot of that depends on donations and what we get"

However, relying on donations can be tricky especially when shocks arise, either by change in the management or those occurring at a more national level, affecting government budget allocations to organizations of this kind. To overcome these uncertainties MOWCS SA does not only depend on donations. It is indeed partially subsidized by the government (Ryan &Madzana, 2015):

A staff member explains: "But we are partially government subsidized, according to [inaudible] umm ... We are subsidized for a 140 members"

As a faith based organization, they receive some support from the SDA church, and they also generate some income from the beneficiaries' contributions towards the meals.

Another staff clarifies: "...as I say the money that comes in from the sale of the meals and also umm... donations, and sometimes requests that people leave us in the wall".

Even though O'Dwyer, & Timone (2008) claimed that fundraising can help a lot with staff training, meals improvement, or hiring of more staff, MOWCS Brooklyn does not unfortunately do fundraising because they do not have time as they are short of staff. One staff explained:

"No fundraising. It takes too much time yet we are short of staff. Umm we sometimes do have a fete or a bazar, but it takes up too much time and we are short of staff. There is only three of us and as you can see I am working on the kitchen most of the time "said one of the staff."

MOWCS Brooklyn had a main concern of staff shortage, resulting in an overreliance on volunteers. The findings showed that they had only three paid employees; one manager and two kitchen staff; one chef and one cook. The rest were volunteer drivers who are already pensioners,

which suggests a difficulty of finding a replacement in the future. It was not clear whether a strategy or plan for ensuring the future viability of services had been drawn up by their head office.

One staff said:

"We are short of staff. You know what would also help, if you had people that could even volunteer and say if somebody need me to help I am willing to go.... But people do not want to volunteer, they want to get paid. And that is very, very difficult...."

O'Dwyer, & Timone (2008)'s research also identified such scenes in Ireland; most meals-on-wheels services centers did not have many paid employees but relied heavily on the volunteers whose service was very poor compared to that of paid drivers.

Moreover, MOWCS Brooklyn was said to be the only service provider of that kind in a big area and did not have an adequate transportation system. From various respondents, it was ascertained that MOWCS Brooklyn covers the areas from Melkbos, Blauwberg, Tableview, Milnerton, Rugby, Brookln, Bothasig, Sea Point, Green Point and District Six, Maitland, Saltriver, and Woodstock etc.

Both staff and beneficiaries wished the center had another car as one of staff explained in the extract below:

"We need the vehicles, sometimes you know, the vehicle might stop which fortunately not often or, but vehicle is always a problem because we always need three vehicles and if one is down, then you got to use somebody's' one ..." "And we are the only organization in the Brooklyn - Rugby area that provide hospital transport for senior citizens. Nobody else does it, no other organization or, there is no other senior organization that does that."

".... because of the inadequate transport system that we have..."

Some Beneficiaries said the following:

"At the moment the kombi is full there is no place ...it only takes 7 people together with the driver"

"....in the former days we used to go on outings..., we had bigger transport like a little single bus..."

The need for some kitchen equipment was also highlighted. A staff explained:

"If we can maybe have a peeler, a peeler is very good. It's like a machine that does the peeling. Because that is really something we are looking forward because all the years we are doing it by hands"

MOWCS Brooklyn did not have its own place but was operating within the premises of the SDA church. However, this was not much of a worry as the Centre Manager could not see it as a risk to the future functioning of the Centre:

"We've been operating for 32 years and we can only maintain the services we have at the moment, we cannot expend our services because in the first place we don't have staff and facilities because we are operating on the church facilities which is not ours."

And she later added "I can't say at this time now we've got problem."

They however wish the government would notice their quarterly reports and respond to their pleas:

"Well I tell you something, every quarter, I send a report into the government right. And then you got your highlights and your challenges. And I have already put this challenges about hospital transport and nothing gets done. They just turn a deaf ear. So I don't know. I don't know what the solution is."

The above findings indicate that MOWCS Brooklyn had some shortcomings, however the staff and beneficiaries did not believe these would jeopardize the continuous functioning of the Centre, even as they echoed the call that it needs more support and investment (O'Dwyer, &Timone, 2008:166). Thus, MOWCS Brooklyn is thought to have many more years of supporting the elderly with stable access to food.

From the beneficiaries' side, it was clear they did not envisage what would assist them to access food continuously if MOWCS ceased to exist. All of the beneficiaries lived only on their pension money and had no other income generating strategies to boost it.

For example, when asked what would happen to them if they could not afford the meals a female participant had this to say:

"Then we would just sit at home and eat bread and jam"

This validates Battersby (2011), who argues that majority of the South African urban poor lack skills to help them earn an extra income to sustain them, hence the persistent in urban food insecurity. However, looking at this from another angle, the supposition could be that elderly people do not have the energy anymore to work and earn an adequate income. This would therefore support Senguta's (2016) views that the elderly cannot possess adequate income, due to their aging and fragile health.

However, it would be an incorrect to support that all older persons do not have the energy or are incapacitated to work. Some of the respondents at MOWCS had recently turned sixty years, or were in their early sixties and still very strong. Even some who were in their 80s were strong, as evidenced by the fact that they were still volunteering at the center.

"I am a member and a volunteer worker at the same time"

Even the staff themselves were senior citizens, but they were all strong and running the Centre well. At the age of sixty, individuals are still full of vigor, and for this reason there are many debates about the benefits of increasing the retirement age from 60 years (maintained by the South African Labor Law) to 70 years (Steenkamp, 2017).

Planning and saving for the meals were the two strategies used by beneficiaries. Others would also buy an extra meal in order not to be hungry when the Centre closed on weekends and on the day meals were not delivered. The extracts below clarify:

"You budget for these meals; you plan for your meals"

"Like me I buy two meals, one for today and the other for tomorrow. So tomorrow I am not gonna be worried."

The beneficiaries heavily hoped MOWCS would always be their food provider. None of the respondents could imagine any reason that would cause other older persons not to use or stop using its services. For some the Centre was said to have become home even till death.

A female beneficiary expounded: "I think the reason would be if they go to an old age home or they are moving out of' the area, I think that the only reason they would stop the meals. Although I don't know if there are people who have ever stopped or maybe who don't like the food"

A male beneficiary also added: "Um, the only reason they would stop using it is when they die. Otherwise they gonna continuously use it. Because what else is there to use? They will have not food if they don't use MOW, they will starve to death so they need MOW"

MOWCS Brooklyn is indeed an important for asset for the elderly in the community.

"This is a very important place to have in the community. Because like I said before there is a lot of needy that are dependent so on this meal that we serve them...First of all, there no body to take them to the hospitals, and their families are working, some families are not even interested, in their elderly and so this becomes almost like their home, their second home and their family".

5.3. MOWCS Brooklyn's beneficiaries' experiences with food security

5.3.1. Food access

As the model shared earlier explained, access to food is determined by the power to purchase. The supposition is the higher the income, the easier the access to preferred, healthy and nutritious food (Sithole & Dinbabo, 2016; 17). According to Senguta (2016), many older persons in South Africa suffer food insecurities due to poverty, lack of income, poor support system and fragile health. In contrast, the older persons who attended MOWCS Brooklyn did not struggle to access food. Majority beneficiaries stated the meals from MOWCS Brooklyn were relatively very low cost suiting their small budget.

A male respondent said: "So the meal is healthy, cheaper and affordable for elderly people, for the SASSA pensioners"

Currently majority poor South Africans find it difficult to afford healthy meals (CCUS, 2017). Nevertheless, both the Health Trust report (2009) and O'Dwyer, &Timone (2008:76) supported that MOWCS does indeed assist elderly poor people with affordable diet.

The MOWCS meals were extremely low price even to the amazement of the beneficiaries. The below statements explain their feelings. Some of the statements are from the focus group with different speakers interjecting each other. Others are individuals

"Resp1: well I am gonna show you, with a place like this... you will never get it nowhere for R11

Res2: ...a place even where you get a plate for the food for R7?

Resp4: ...and the pudding is R 3!

"It's so cheap. Who cannot afford R11 for a plate of food?"

"Come to food also. R7? What is R7?"

"If they do increase its like R1.

Resp2: Come on you go to Spur, you go to eat out what are you paying? G an arm and leg you come here and you get a meal for R11?"

"Resp1: Yeah [affirming what she just said]. Who is gonna complain?

Resp3: where are you going to get that? For that price?

Resp2: nowhere. Common! When your husband or your boyfriend take you out to eat does he pay R11? No ways. [Laughing] they pay ten times more"

Warshawsky (2011), and MOWCS SA (2018) stated MOW's core mission is to provide older persons with food access.

Furthermore, beneficiaries expressed that these meals helped them save electricity, time, money and even energy. The extracts below present some beneficiaries' views on that:

"well, me being able to come here to have the meals it saves me, to have to go out, to shopping malls and by my food, you know, and I don't have to cook it myself and the electricity that I will be using and so all your cost goes up you see? But coming to Meals on Wheels, you are keeping your cost down that you have to pay for the meal and you get substantial meal. So I don't need to go home and I still have to cook or spend money and buy all those vegetables which I get here"

A female respondent said

"...you can't be cooking for one person and waste your energy and time. And you can't think to put in all those vegetables in there so pay the money to them because it's cheap. When you cook a plate of food for you its R30, here you get it for R10 or R11 depending on your income."

And another one added:

"You know where you can actually cook for R8 and you get all you have to buy your stove, electricity and everything for R8? And the pudding is only R3.00"

This saving allows them to afford other households necessities they wouldn't had they have to buy and cook meals for themselves. Also O'Dwyer, &Timone (2008: 137) found the delivered meals saved the elderly from a lot of troubles. Furthermore, MOWCS Brooklyn food is got different ingredients needed to make up a healthy and nutritious dish.

Majority respondents whose income was only OPG, were thankful to the Centre because they were able to access a healthy and balanced meals.

A female respondent said the following: "...you can't afford to buy yourself three vegetables with the SASSA pension what can you do with it? Not much. You pay your rent, you pay your light and then you got no food. You see, we don't even go to clothing because you never gonna get there, there isn't money for all these things. And even if it increases, it increases R10, what is ten rand? The bread is R15, the brown bread they want you to eat. Me I buy the government bread for R6."

Another female respondent also explained:

"I think that one of the reason; they even deliver to Sea Point, the people whom you wouldn't think of. It's only SASSA pensioners that come here, so all they rely on is their SASSA pension which 1700 a month which is not a lot. I mean you can't live on 1700 a month how do you live on that? So obviously that is going to make a way to get a healthy food I mean it can cost you what's it is. I mean R8 a meal and its Monday to Friday and its only weekend that you gonna need to find something to eat. Some people take more than one meal, they take maybe two meals to sustain them over the weekend you know? So if they get their last meals on Thursday then maybe they get three meals for Friday, Saturday and maybe even Sunday as well, you know."

The OPG has been proved to be very supportive but on its own, it cannot be enough to support households. Devereux & Waidler (2017) argued that the OPG was not sufficiently large to meet food needs and eradicate hunger in recipient households. Thus the need for a supplementary income thought this is not easy for many elderly as seen in the previous section.

5.3.2. Food utilization and dietary diversity

Food utilization brings in the physicality of food security and stands as core as far as food security is concerned. Food utilization implicates different vital features that work together to bring about the individual's food security. These features are food quality and quantity, dietary diversity, health status, food preferences, hygienic standards in the preparation of food from production to storage (FAO, 2006; WFP, 2007; & Pieters; Guariso and Vandeplas, 2013).

Starting with food quality, some beneficiaries rated excellent food from MOWCS Brooklyn. Below are extracts of some of respondents' answers:

"The quality I've got no problem with that, the vegetables are very nice and soft, the chicken, is very nice, it's very soft and succulent... it's not hard like some things you know? I don't have any problem, it's a well-balanced meal"

"They are excellent, yes"

"Um, I would say it's all healthy food and it's always very tasty. Very nice food"

When it comes to the taste of food, there rose different arguments. A 20% of respondents had to season the food on their own to enhance the taste.

"Well, on the club day, it's very good. And on the other two days, it's healthy, but of course you must understand it is mass produced.... It's healthy but of course you have to juice it up a bit, like season it and that, not just bland."

Brunsø, Fjord, & Grunert, (2002) argued that though the food taste remains the main predicator of food quality, it is however the most subjective thing ever. Real food quality has got a good natural taste and need not flavour enhancers.

Nevertheless, for other beneficiaries, food that enhances health should not be too spicy and that's the food they received from MOWCS Brooklyn. A female respondent explained:

"You see the quality is very good for all the elderly people because that's the type of food they need, they got high blood pressure, and they got sugar they got anything that food helps them along in life because there are not much spices"

Another female respondent said the following:

"There is not much spices, if you want to add salt you add on your own, your pepper, it's very good for old people. That's all I can say"

This spotlights personal food preferences. Literature proved that the beneficiaries of MOWCS enjoyed good quality meals. O'Dwyer, &Timone (2008) stated MOWCS was the source of nutritious meals and its services have both preventive and restorative effects on the health status of the older persons.

Beneficiaries also indicated they were satisfied with the quantity of meals they received from MOWCS Brooklyn. As pointed out earlier in the food availability section, there was no complains about the quantity of the meals beneficiaries were receiving from the MOWCS Brooklyn.

To determine the adequacy of the meals a dietary diversity score need to be used. Oldewage-Theron & Kruger (2008) stipulated dietary diversity scores give a fairly good assessment of the adequacy of the diet, and scoring dietary diversity is simple but significant way to identify elderly persons at risk of food and nutrition insecurity.

However, not all studies agree with the above as a promoter of healthy eating patterns and healthy body weight. Some food groups above are not healthy and thus should be consumed in a moderate way or simply avoided. The study by de Oliveira Otto et al (2018) argued that to promote a healthy eating pattern, emphasis should be on adequate intake of plant foods, protein sources, low-fat dairy products, vegetable oils, and nuts. Limits should be exercised on consumption of sweets, sugar-sweetened beverages, and red meats as these have been proven to be causing a lot of diseases. This lines up with the study findings at MOWCS Brooklyn.

Nevertheless, because MOWCS Brooklyn provides only lunch meals but not supper nor breakfast, this study did not make use of a typical dietary diversity score questionnaire, however, food ingredients were needed to determine diet adequacy. Hence beneficiaries were requested to recall as far as they could remember the different ingredients that made their meals. The main food groups identified were: starch, vegetables and a bit of proteins. The different ingredients were: rice, pumpkin, potatoes, sweet potatoes, corn, tomatoes, and beetroots, a little bit of meat and chicken, onions, baby marrows, squash, butter nut, cabbage, lentils, carrots, peas, beans, green salads made of lettuces, tomatoes and cucumber. For the free good goodies, beneficiaries received

bread, apples and other fruits, they also bought honey at a low cost. The beverages included tea and coffee with milk and sugar added in a moderate quantity.

Checking the findings against the information above, it is then evidenced that meals from MOWCS Brooklyn served the nutrient elements present in almost all food groups, which suggested that their meals constituted a balanced and adequate diet. FAO (2011) maintained a balanced diet reduces the risk of poor physical and mental health for all age groups. O'Dwyer, &Timone (2008) argued a balanced diet is a pathway towards a good heath life as it decreases chronic illnesses among the elderly.

To maximize the diversity of their meals, MOWCS Brooklyn changed the menu every day. Both staff and beneficiaries admitted the menu changed every day and every week. For example, a male respondent said: "No they don't serve exactly the same food every day. They do some changes, there is variety of food." A female respondent: "So often. I would say every day is a different thing. I come here I can't say I had what I eat yesterday because it's not like that. They try to vary as much as possible. Another female respondent: "Well, every Wednesday It's different. It's not the same"

Also the manager shared a guide for a one-week menu as in the table below:

DAY	MENU
MONDAY	Pie + 3 salads
TUESDAY	Fish cake + yellow rice + Gravy + Butternut +Peas
WEDNESDAY	Chicken stew with vegetables + Rice + Pudding
THURSDAY	Cabbage Bredie + Rice + Carrots
FRIDAY	Hamburger + Chips + Salads

Table4: One-week menu sample

The changing of a menu facilitates access to different varieties of food, thus improving the macronutrients intake. Powell, Bezner Kerr, Young, & Johns (2017) found that dietary diversity enhances appetite across days, months and seasons. Thus the greater food intake, the greater the macronutrients intake of vitamins and minerals that the body needs to be healthy. Even MOWCS Brooklyn, staff had the confidence their food promoted health. A staff member explained below:

"Our meals is adequate enough, rich, and nutritious for anybody who is even a diabetic". Another employee also stated: "We've taken people every day for chemo, and those people are still alive in the community. So I would just say, our food can't be bad if these people have survived all these years hein".

Food preference is also one of key characteristic of food security (Pieters; Guariso and Vandeplas, 2013). At MOWCS Brooklyn, individuals had an option of choosing their preferred food. Befor joining the program, applicants fill in a form where they give their personal details including their preferred food, their ailments and they indicate chronic medication if any.

One staff explained: "when they sign up these form, there is an area where they can stipulate that they don't like rice, or they don't want curry or whatever but they do stipulate what they like so it's mainly like that and if they don't have, because its nutritional meal, it doesn't affect actually much of many people..." Another staff stated: "A lot of people will tell us that because of the various ailments that they have that there are certain things they can't eat. And also some people would say they are vegetarian. So we cater for that also. So whatever it is we carter for

The only challenge was that some beneficiaries did not disclose full information about their medical conditions. Beneficiaries who did so were said to have disadvantaged themselves because MOWCS Brooklyn catered for everyone's nutritional needs and preferences. For example, one beneficiary admitted to the researcher she did not disclose her health and consequently was affected by some type of food: "no, no I didn't tell them anything, I just eat whatever comes in front of me ...yeah like sometimes they've got cabbage bready which does not agree with me because I've got acid problem in my stomach...I try and to avoid but I will eat it. When I go home I take a tablet"

Food is also healthy when is hygienically prepared. Hygienic standards do not only consist of pots and kitchen utensils washing but also of environmental sanitation. One cook explained: "...plus the kitchen must always be neat, always cleaned. Our hair must also be covered; you cannot come into the kitchen without your hair net or your hair covered. And no jewelry must be worn because accidents happen very quickly, you must be very cautious when you prepare the meal. And the first thing when you come in you wash your hands in the ladies and then when you come in the kitchen, before you do anything you must sanitize your hands with the disinfectant because, bacteria is being all over without you realizing it."

Food consumed still fresh and filled with all goodness benefits the body (Joubert. 2017). At MOWCS Brooklyn, raw food is a not direct production but they receive or buy food that is still fresh, beneficial for human consumption. The unused fresh food is stored in the cold store room for only three days after which they will discard it. The following statements from staff illustrate: "...everything is freshly made on the day and we do not freeze and give or make and put in the fridge, every day what is made it taken out onto the road directly."

"If we have say something in the fridge we cannot keep it for 3 days or we serve it, because it can become poisonous to whoever will eat it." The Centre manager also elaborated more: "We also send our chef, one of our main cooks on a course for a week to PE. And there she learnt about storage of food, cross contamination, and things like that, we are already aware of those things"

In addition, their kitchen facility is acknowledged by the City of Cape Town Council as a compliant food provider. The manager explained: "And also our kitchen has been cleared by, we've got certificate of acceptability for food premises so they come in and inspect to see if you are compliant" (Pointing to the wall where the certificate was hanging)

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CHAPTER 6: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter provides overall summary of the findings, draws conclusions and recommendations based on the discussion of the research findings.

Summary of the findings

This study was grounded on two research questions which allowed the researcher to investigate the role that MOWCS Brooklyn plays towards food security and experiences with food security r among their elderly beneficiaries. The research questions were as follows:

- a) How does MOWCS Brooklyn contribute to food security among older persons?
- b) What are the experiences of MOWCS beneficiaries with food security?

The findings were able to answer those research questions to a very large extent, as will be shown below.

A. The contribution of MOWCS Brooklyn on food security among the elderly

Food availability

The findings of this study indicated that MOWCS Brooklyn had enough food available to their members at any time. Food was available both in quality and quantity. Food was enough to satisfy the beneficiaries. Some beneficiaries chose to receive the meal once a week, others chose to receive the meals five days a week. As for the quantity of the meals or the portion size, there were no complaints. Everyone was satisfied and for some the one meal served as two, which might indicate a coping strategy that is used in contexts of food insecurity, but it might also indicate that they were given portions that were larger than they could consume. The Centre was shown to be always open for anyone who wished to come and have a meal.

Food stability

The findings indicated that the stability of food among the beneficiaries of MOWCS Brooklyn depends on the stability of the Centre itself. As long as the Centre remains functional there will always be food for its beneficiaries. Many of the beneficiaries were shown to have formed a bond with the Centre employees, such that they looked forward to coming to the Centre, as their sole hope of food provision, but also as a place to socialize.

The concerns about the longevity of the Centre and its operations, given its funding constraints and reliance on donor funding, are mitigated by the fact that it has an established and long history of service and the hope is that it will continue to be functional for an indefinite time. There are some challenges but they were thought to be minor and thus not enough on their own to stop it from functioning.

B. Hunger experiences among the beneficiaries of MOWCS Brooklyn

Food access

Findings showed that the beneficiaries of MOWCS Brooklyn had an easy access to the food because the meals were very low cost and affordable according to the pensioners' small income. These meals were very healthy and solid meals so that when compared to the price of the actual cost of the meals participants could not even believe they were paying such a very small amount towards those meals. The low cost of the meals helped the elderly to save for other basic necessities of which they could not have afforded hadn't it because of MOWCS.

Food utilization and dietary diversity

The findings supported the different characteristics of food utilization. With food quality beneficiaries rated the meals very good quality with some rating it excellent. All the beneficiaries were happy with the quality of the meals. A handful of beneficiaries rated the meals very good but added their own seasoning to enhance their taste. The food was also rated to be healthy and promoting health of the elderly.

Findings also showed that there was a variety of food as result the menu changed every day and every week. The variety of food allowed individuals to consume macronutrients intake which allowed them the consumption of vitamins and minerals needed by the body to be healthy. In this way findings also proved MOWCS Brooklyn to promote health.

Beneficiaries were also allowed to indicate their food preferences, which were catered for. The findings also showed that hygienic standards were applied while preparing the meals and that conservation of the meals was following the international standards of food storage.

6.1. Conclusion

The main purpose of this study was to investigate the role that Meals on Wheels Community Services Brooklyn Centre plays on promoting food security among the elderly in Brooklyn Cape Town. Through extensive literature, it has been evidenced that food insecurity is prevalent in the world, in Africa, and in South Africa in particular. The literature review in this thesis has also shown that food insecurity is a reality among the elderly and that little was known about their experiences with hunger, especially in the South African context. In line with this, this study explored hunger experiences among the elderly beneficiaries of MOWCS Brooklyn. Using the food security framework, the study explored food availability, access, utilization and stability at MOWCS Brooklyn.

MOWCS has been commended all over the world for playing a major role to alleviate hunger in its communities of practice. The findings of this study support such a view. MOWCS Brooklyn was found to play a very important role towards alleviating food insecurity among their elderly beneficiaries. It was indeed found to be a good asset to have in the community. All the elderly beneficiaries live on government pension, OPG of which they lamented it was not enough to cover all needs but with MOWCS Brooklyn, they could afford a healthy, well balanced meal at a low cost. MOWCS Brooklyn does not only assist the elderly with food, but also with other social services such as the get together club, to and fro transportation to hospital, to shopping and to collecting their SASSA money, health checkup and many more. Since these services are very low cost if not sometimes for free, the elderly benefits from these and they are able to manage their tighten budget. It has also been suggested that the meals from MOWCS Brooklyn sustained the health of the elderly, and as a result they lived longer in their communities. The manager said: "We are there in the community to keep people in the community as long as possible."

However, MOWCS Brooklyn also had some challenges. First it operated alone in a big area, second they were also short of staff. As an NGO they could not afford to pay staff so they relied heavily on volunteers who often did not come through. This inconvenienced the Centre, and constrained their capacity to extend their services to a wider community. Both the staff and beneficiaries wished there were more Centers that operate as MOWCS in the area, but also that the government paid attention to their pleas in their quarterly reports, where they highlight their achievements and challenges, especially the hospital transport challenge etc.

6.2. Recommendations

Based on the findings of this study and the subsequent conclusions, the following recommendations are made:

- MOWCS Brooklyn is doing a great job in the community. However, it operates as a standalone
 organization within a huge community of much greater and pressing needs than they are able
 to meet. Therefore, the government should consider increasing their support of initiatives of
 this kind
- 2. Noting that MOWCS is partly subsided by the government and that its services have been proven to be good for older persons, it is therefore recommended that government duplicates this model and expands access to this kind of service so that a wider community of elderly people is reached.
- 3. It is also recommended that more studies are conducted to examine the barriers that prevent MOWCS services from reaching Black African, poor communities in cities such as Cape Town. Studies should also be deployed to understand how the MOWCS can be duplicated in rural communities where elderly people are similarly vulnerable to food insecurity as in the city.
- 4. MOWCS Brooklyn wished to extend more of their services or implement new ones, to reach as many older persons as possible, however, due to insufficient funds, shortage of staff and equipment they are unable to do so. It is therefore highly important for government to reconsider the existing policies of subsidizing projects such as these, so that they are large enough to ensure these organizations are able to optimize their service delivery. Ideas also can be borrowed from other countries that have managed to implement programs of this nature.
- 5. Older persons from all of South African races need to be educated and encouraged to make use of these facilities so they do not starve and live in isolation.
- 6. Other stakeholders such as day hospitals and food banks need also to cooperate with the food assistance programs in order to render an effective and dignified service to older persons.

REFERENCES

Abdu-Raheem, K. A. & Worth, S. H. 2011. Household food security in South Africa: evaluating extension's paradigms relative to the current food security and development goals. **S.Afr. Tydskr.** Landbouvoorl. S. Afr. J. Agric. Ext., 39(2):91 – 103.

Aceves, J. & Wellin, C. 2016. Peace Meal: A Senior Citizen's Right to Food in East Central Illinois. Illinois: Illinois State University.

Adom, D; Hussein, E. & Joe, A. 2018. Theoretical and conceptual framework: Mandatory ingredients of a quality research. **International journal of scientific research**. 7: 438-441.

Altman, M. Hart, T. & Jacobs, P. 2009. Food security in South Africa. Pretoria: Human Sciences Research Council (HSRC).

Amadeo, K. 2017. What Are Emerging Markets? 5 Defining Characteristics: How to Pick the Real Winners. [Online] Available https://www.thebalance.com/what-are-emerging-markets-3305927 Accessed 24/10/2017

Ayres, L. 2012. The SAGE Encyclopedia of Qualitative Research Methods: Semi-Structured Interview. Thousand Oaks: Sage Publications.

Battersby, J. 2011. The State of Urban Food Insecurity in Cape Town." Urban Food Security Series No. 11. Queen's University and AFSUN: Kingston and Cape Town.

Breene, K. 2016. Food security and why it matters. World economic forum [online] Available: https://www.weforum.org/agenda/2016/01/food-security-and-why-it-matters/ Accessed on the 20/12/2017

Campbell, A. D., Godfryd, A., Buys, D. R., & Locher, J. L. 2015. Does Participation in Homedelivered Meals Programs Improve Outcomes for Older Adults? Results of a Systematic Review, **Journal of Nutrition in Gerontology and Geriatrics**, 34(2), 124–167. http://doi.org/10.1080/21551197.2015.1038463

Cape Times. 2017. Exciting new plans to transform city / PATRICIA DE LILLE. [Online] Available: https://www.iol.co.za/capetimes/exciting-new-plans-to-transform-city-2096896 Accessed on 9 Feb 2018

Case, A. (2001). Does money protect health status? Evidence from South African pensions, NBER Working Paper, No. 8495. Cambridge, MA: National Bureau of Economic

Census 2011. Brooklyn Sub Place 199014026. [Online] Available: https://census2011.adrianfrith.com/place/199014026 Accessed on 9 Feb 2018

Coetzee, M. (2013). Finding the Benefits: Estimating the Impact of the South African Child Support Grant, South African Journal of Economics, and 81(3): 427–450.

Corporate Communication. 2017. Elderly suffer from malnutrition. [Online] Available http://www.sun.ac.za/english/Lists/news/DispForm.aspx?ID=5068 Accessed 15 July 2017.

Creswell, J. W.1998. Qualitative inquiry and research design: Choosing among five traditions. London: Sage Publications

Department of Economic and Social Affairs Population Division. 2015. World population ageing report. New York: United Nations.

Devereux, S. and Waidler, J. (2017). Why does malnutrition persist in South Africa despite Social grants? Food Security SA working paper series No.1. DST-NRF Centre of Excellence in Food Security and University of the Western Cape and the University of Pretoria: Cape Town and Pretoria.

Dieticians of Canada .2005. Individual and household food insecurity in Canada: Position of dieticians of Canada. Canada: Dieticians of Canada.

Diop, M. 2016. Foresight Africa 2016: Banking on agriculture for Africa's future. Africa in Focus [online] Available https://www.brookings.edu/blog/africa-in-focus/2016/01/22/foresight-africa-2016-banking-on-agriculture-for-africas-future/ Accessed 10/1/2018

Dishad, R.M. and Latif, M.I. 2013. Focus Group Interview as a Tool for Qualitative Research: An Analysis. **Pakistan Journal of Social Sciences**, 33(1):191-198.

Dlamini, N. E. 2013. Dietary diversity and food access of deep-rural households of Idutywa, Eastern Cape. Cape Town: University of South Africa.

Earl, A. (2011). Solving the food security crisis in South Africa: how food gardens can alleviate hunger amongst the poor. Master's dissertation, University of the Witwatersrand.

Edfors, E. & Westergren, A. 2012. Home-Living Elderly People's Views on Food and Meals. **Journal of Aging Research**, 2012 (9):1-18.

Elsevier Online. 2017. 3rd International Conference on Global Food Security: Global Challenges, Local Solutions and Connected Pathways. 3 - 6 December 2017, Cape Town. South Africa. DST-NRF Centre of Excellence in Food security and the Universities of Pretoria and of the Western Cape. [Online] Available: www.globalfoodsecurityconference.com Accessed on the 21 December 2017. Enquire inquire

FAO, IFAD, UNICEF, WFP and WHO. 2018. The State of Food Security and Nutrition in the World: Building resilience for peace and food security. Rome: FAO.

FAO. 2006. Food security. Policy Brief. No.2, June 2006

FAO. 2011. Guidelines for Measuring Household and Individual Dietary Diversity. FAO.

FAO. 2012. The State of Food Insecurity in the world: Economic growth is necessary but not sufficient to accelerate the reduction of hunger and malnutrition. Rome. FAO.

FAO (a). 2017. Household Dietary Diversity. [Online] Available: http://www.fao.org/nutrition/assessment/tools/household-dietary-diversity/en/ Accessed 10/11/2017

FAO (b). 2017. How close are we to #ZeroHunger? The State of food security and nutrition in the world 2017. http://www.fao.org/state-of-food-security-nutrition/en/ Accessed 15/08/2017

FAO. 2017. Regional Overview of Food Security and Nutrition in Africa 2016. The challenges of building resilience to shocks and stresses. Accra: FAO

Ferreira, 2017. Factsheet: social grants in south Africa-separating myth from reality. [Online] available. https://africacheck.org/factsheets/separating-myth-from-reality-a-guide-to-social-grants-in-south-africa/ visited on 25 Jan 2018

Food Insecurity Policy Research (PROOF). 2018. Household Food Insecurity in Canada. Online available: https://proof.utoronto.ca/food-insecurity/ Visited 18/10/2018

Food Security Information Brief 1. July 2006. Fighting hunger. Linking information to action. Food insecurity and vulnerability information management.

Government Gazette. (2006) Older Persons Act. Act No. 13 of 2006. Vol.494. No. 29346, pp. 1-36.

Government of South Africa. 2019. Old age pension: About the older persons grant. [Online] Available http://www.gov.za/services/social-benefits-retirement-and-old-age/old-age-pension. Visited 5th April 2019

Harrell, M. C. & Bradley, M A. 2009. Data Collection Methods: Semi-Structured Interviews and Focus Groups. California: Rand Corporation.

Help Age International. 2018. Global ageing statistics. [Online] available http://www.helpage.org/resources/ageing-data/globalageing-statistics/ Accessed 16 Jan 2018

Hwenha, S. 2014. The South African Food Security Paradox: Lessons and opportunities for CSI. Johannesburg: First Rand Foundation

Ikejiaku, Brian-Vincent. 2009. The Relationship between Poverty, Conflict and Development. **Journal of sustainable development**, 2 (1): 15-28

International Labour Office (ILO). 2016. Older persons' grant: South Africa social department. Geneva: ILO

Jabareen, Y. 2009. Building a Conceptual Framework: Philosophy, Definitions, and Procedure. International Journal of Qualitative Methods, 8(4): 49-62

Joubert, L. 2017. Op-Ed: Mind the (food) gap. Daily Maverick [Online] Available: https://www.dailymaverick.co.za/article/2017-12-12-op-ed-mind-the-food-gap/#.WoaumlRubIU

Julian, M. 2017. Morning live News [Online] available https://www.youtube.com/watch?v=QkPwMGR7dhI Accessed 15/1/2018

Accessed on 17 December 2017

Kalkuhl M., von Braun J., Torero M. (2016) Volatile and Extreme Food Prices, Food Security, and Policy: An Overview. In: Kalkuhl M., von Braun J., Torero M. (eds) Food Price Volatility and Its Implications for Food Security and Policy. Springer, Cham.

Keller, H., Dwyer, J.M., Edwards, V., Senson, C., Edward, H. G. 2007: Food Security in Older Adults: Community Service Provider Perceptions of Their Roles. Canadian Journal on Aging, 26 (4): 317 - 328

Krueger, R. A. 2002. Designing and Conducting Focus Group Interviews. Minnesota: University of Minnesota

Labadarios, D., Mchiza, Z. J.R.N., Steyn, P.; Gericke, G., Maunder, E. M. W.; Davidsa, Y.D & Parkera, W. 2011. Food security in South Africa: a review of national surveys. Cape Town: Bulletin of the World Health Organization.

Lavrakas, P. 2008. Purposive Sample In: Encyclopedia of Survey Research Methods. Sage Publications. http://mr.crossref.org/iPage?doi=10.4135%2F9781412963947

Lombard, A. & Kruger, E. 2009. Older Persons: The Case of South Africa. **Ageing International**. 34, 119

Makiwane, M. & Kwizera, S. A. 2007. An Investigation of Quality of Life of the Elderly in South Africa, with Specific Reference to Mpumalanga Province.

Mbhenyane, X & Labuschange, I. 2016. Sub-Saharan Africa has a long way to go before it cracks food insecurity. [Online] Available: https://theconversation.com/sub-saharan-africa-has-a-long-way-to-go-before-it-cracks-food-insecurity-56100 Accessed 24/10/2017

McLeod, S. A. 2017. Maslow's hierarchy of needs. Retrieved from www.simplypsychology.org/maslow.thml Accessed 11/12/2017

Meals on Wheels Community Services (MOWCS) 2017. Meals on Wheels Community Services (MOWCS) [Online] Available: http://adventist.org.za/ministries/meals-on-wheels-community-services-mowcs/ Accessed 24/10/2017

MOWCS Brooklyn, 2015. Food portion sizes. MOWCS Training manuals

MOWCS SA. (2018). What we do. [Online] available; www.mealsonwheels.org.za Accessed on the 1/2/2018

Mutisya, M., Ngware, M.W., Kabiru. C.W. et al. 2016. Food Sec. 8(4):743-756

National Planning Commission (NPC). 2011. National development plan 2030. Our future: make it work. Pretoria: Presidency

NBER Working Paper, No. 8495. Cambridge, MA: National Bureau of Economic Research.

Ncube, N. 2014. Old age grant and food security in South Africa: The case of Goshen village community, Amathole municipality. Alice: University of Fort Hare.

News 24. 2013. Food security in SA declining – study. [Online] Available. https://www.news24.com/SouthAfrica/News/Food-security-in-SA-declining-study-20130806
Accessed on 17/1/2017

O'Dwyer, C. & Timonen, V. 2009. The Role and Future Development of the Meals-on-Wheels Service for Older People in Ireland. Dublin: Trinity College.

Ochieng, N.T.; Wilson, K.; Derrick, C.J.; Mukherjee, N. 2018. The use of focus group discussion methodology: Insights from two decades of application in conservation. **Methods Ecol Evol** (9):20-32.

Ottermann, B. 2017. South Africa's 'hidden hunger: As food prices increase, South Africans find it exceedingly difficult to afford healthy nutrient-rich foods [Online] available. http://www.health24.com/Diet-and-nutrition/Food-security/South-Africas-hidden-hunger-20130411 http://www.health24.com/Diet-and-nutrition/Food-security/South-Africas-hidden-hunger-20130411

Pieters, H.; Guariso, A. & Vandeplas, A. 2013. Conceptual framework for the analysis of the determinants of food and nutrition security. Working paper No. 13: Food secure Project

Pinstrup-Andersen, P. 2009. Food security: definition and measurement. New York: Springer.

Pinstrup-Andersen, P., Pandya-Lorch, R. (Eds). 2001. The Unfinished Agenda Perspectives on Overcoming Hunger, Poverty, and Environmental Degradation. Chapter 2: Global food security. A Review of the Challenges. Pp 7-17. Washington DC: International Food Policy Research Institute.

Political exchange, 2013. Interview with former Minister of Agriculture, fisheries and forest Ms Tina Joemat-Petterson on South Africa's food security. Part 1 [Online] Available https://www.youtube.com/watch?v=kz65zsT-rps Accessed 12 Jan 2018.

Razes, M. & Dop, M-C. 2011. Guidelines for measuring dietary diversity: A simple tool for developing and evaluating food and nutrition security interventions. Nutrition and Consumer Protection Division Research.

Ruel, M. (2002). Is dietary diversity an indicator of food security or dietary quality? A review of Measurement issues and research needs. Discussion Paper No. 140. Washington DC: Food Consumption and Nutrition & Division International Food Policy Research Institute.

Rukuni, M. 2017. Video Presentation on "Recent development on food and nutrition security on the African continent". [Online] available https://www.youtube.com/watch?v=YMvgt5c2MPE Accessed 15/1/2018

Ryan, N. & Madzana, S. 2015 Annual General Meeting: Meals on Wheels Community Services, Western Cape area. Cape Town: MOWCS SA

SABC News (2017). Food security in the continent. [Online] Available https://www.youtube.com/watch?v=pzX9vzSdL2M Accessed 12 Jan 2018.

Sassi, M. 2018. Understanding Food Insecurity. New York: Springer International Publishing AG Sasson, A. 2012. Food security for Africa: an urgent global challenge. Sasson Agriculture & Food Security, 1 (2):1-16

Sealey-Potts C & Potts AC. An Assessment of Dietary Diversity and Nutritional Status of Preschool Children. Austin J Nutri Food Sci. 2014; 2(7): 1040. ISSN: 2381-8980.

Seekings J. & Nattrass, N. 2005. Class, race, and inequality in South Africa. New Haven: Yale University

Sengupta, P. 2016. Food Security among the Elderly: An Area of Concern. **Journal of Gerontology** & Geriatric Research; (4):5: 320-321

Short, K. 2012. Food insecurity in South Africa. Business Online [Online] Available https://www.youtube.com/watch?v=glOWB05-qbI Accessed on the 14 Jan 2018.

Silverman, D. 2014. Interpreting qualitative data. London: Sage Publications

Sithole, S.T. & Dinbabo, M.F. 2016. Exploring youth migration and the food security nexus: Zimbabwean youths in Cape Town, South Africa. **AHMR**, 2 (2): 512-537

Soltas, E. 2015. SNAP and Food Security: Evidence from Terminations. Princeton: University.

South African Social Security Agency (SASSA). 2018. Social grants. ONLINE available http://www.sassa.gov.za/index.php/social-grants Accessed 12/2/2018

Strickhouser, S. Wright, J. D., & Donley, A. M. 2015. Food insecurity among older adults. Florida: AARP.

Swindale, A. & Bilinsky, P. 2006. Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide VERSION 2. Wasgington DC: FANTA & USAID

The health trust report brief, 2009. Health Trust Evaluation Brief Nutrition & Social Connection for Older Adults. California: Health Trust

Thornton, A.J. 2016. Dietary Diversity and Food Security in South Africa: an application using NIDS Wave 1.

Tirivangasi H. M. (2018). Regional disaster risk management strategies for food security: Probing Southern African Development Community channels for influencing national policy. *Jamba (Potchefstroom, South Africa)*, 10(1), 468. doi:10.4102/jamba. v10i1.468.

Tsegay, Y. T; Rusare, M. & Mistry, R. .2014. Hidden hunger in South Africa: the faces of hunger and malnutrition in a food-secure Nation. South Africa: Oxfam.

UN. 2015. The Millennium Development Goals Report 2015: Time for global action for people and planet. New York: United Nations.

UNDP (United Nations Development Programme) (2012). Africa Human Development Report 2012: Towards a Food Secure Future. Geneva: UNDP.

UNICEF, Department of Social Development (DSD) and SASSA .2016. REMOVING Barriers to accessing child grants: progress in reducing exclusion from South Africa's child support grant. Pretoria: DSD & SASSA, UNICEF.

Urban Renewal Strategy: A Strategy for the renewal of three suburbs in the Blaauwberg Municipal area: Rugby, Brooklyn and Ysterplaat. Prepared on behalf of: Department of Planning and Economic Development, Blaauwberg Municipality by TV3, Taylor, Van Rensburg, Van Derspuy. Architects and Planners. Somerset West, Cape Town. June 2000.

van Wyk, L. 2018. *Country's NGOs in Crisis [online] Available:* http://www.ngopulse.org/article/2018/07/12/country%E2%80%99s-ngos-crisis Visited 18/10/2018

Von Grebmer, K.; Badiane, O.; Bernstein, J.; Prasai, N.; Amin, S.; Yohannes, Y.; Jallow, I. Sonntag, A.; Patterson, F.; Towey, F. & Thompson, J. 2016. 2016 *Global Hunger Index: Africa Edition*. Midrand: The New Partnership for Africa's Development.

Von Grebmer, K.; Bernstein, J. Hossain, N.; Brown, T.; Prasai, N.; Yohannes, Y.; Patterson, F.; Sonntag, A.; Zimmermann, S.-M.; Towey, O. & C. Foley, C. 2017. 2017 Global Hunger Index: The Inequalities of Hunger. Washington, DC: International Food Policy Research Institute.

Warshawsky, D.N. 2011. "Urban Food Insecurity and the Advent of Food Banking in Southern Africa." Urban Food Security Series No. 6. Cape Town: Queen's University and AFSUN.

Weekend Argus. 2018. Flesh trade uncovered in quiet Cape Town suburb/ YAZEED KAMALDII. [Online] Available: https://www.iol.co.za/weekend-argus/flesh-trade-uncovered-in-quiet-cape-town-suburb-12711983 Accessed on 9 Feb 2018

Welman, JC and Kruger, SJ. 2001. Research methodology for the business and administrative sciences (2nd edition). Oxford: Oxford University Press



APPENDICES

APPENDIX A: INDIVIDUAL INTERVIEW GUIDE FOR INTERVIEWS WITH BENEFICIARIES OF MOW

Personal information

- 1. How old are you?
- 2. What is your race?
- 3. What is your gender?
- 4. What is your marital status?
- 5. Please tell me about the current living arrangement you have in place? For example, live alone, homebound, in your own house, in the old age home, with housemate or a partner or someone who also receives meals from MOWCSC, etc.

Experience with MOWCSC

- 6. How often do you receive meals from MOWCSC?
- 7. Please describe the quality of the meals you get from MOWCSC.
- 8. Pease tell me what are the different types of food do you get in a meal?
- 9. Would you please list for me the different variety of food items from the meals offered to you?
- 10. Please tell me about the menu? Does the menu change or do you receive same food items over and over again?
- 11. Tell me about your diet? Talk to me about your food preferences, which foods would you never eat and why? What foods do you eat the most and why?
- 12. Talk to me about your snacking. What do you eat as a snack on in between the meals? What time and how often do you snack? How do you acquire your snacks?
- 13. Please talk to me about your satisfaction on the meals you receive from MOWCSC?
- 14. Please relate to me in which way the meals you receive satisfy or don't your food needs

- 15. Tell me about why you decided to join MOWCSC
- 16. What are your overall views on the Meals on Wheels Community Service centre?'
- 17. Tell me what you understand by (being food secure/insecure) having or not having enough food to eat
- 18. Tell me your views about the centre's services towards ensuring food security
- 19. In which ways has Meals on Wheels made a difference towards your food needs? Please give an example
- 20. In the last 12 months, how would you describe your access to food or your hunger experience? Did you ever go to bed hungry, or experience hunger?
- 21. How did you find out about Meals on Wheels Community Services Centre and what motivated you to join the program?
- 22. What would be the reasons why the elderly would start using MOWCS food assistance?
- 23. Talk to me about the promotion of MOCS in this community
- 24. What would be the reasons why people would stop using this food assistance program?
- 25. If MOWCSC would stop running, how would you be affected in terms of having enough food?
- 26. What aspects of the service do you like the most?
- 27. What would be your recommendations about MOWCS to other older persons?

APPENDIX B: INDIVIDUAL INTERVIEW GUIDE WITH MOWCS STAFF

Personal information

- 1. What is your age?
- 2. What is your gender?
- 3. What is your highest education?

Experiences with MOWCSC

- 4. What is your current position within the Meals on Wheels organisation? E.g. Volunteer, Meal Preparation, Administration, Driver, Other (please specify).
- 5. How long have you been working for the Meals on Wheels Organisation?
- 6. Please describe to me the importance of Meals on Wheels in the community
- 7. Who can be a member of the MOWCS? And how many members do you have?
- 8. In your time working for Meals on Wheels, what training have you undergone relating to the nutrition for the elderly and food preparation?
- 9. What is the cost of a meal? How do you decide on the cost? What differences are there in the way meals are priced for different types of older persons? How are poorer older persons charged for meals compared to those who are less poor?
- 10. How many meals do you deliver per week?
- 11. Please tell me how Meals on Wheels takes the different nutritional needs of the elderly into consideration?
- 12. Tell me what do you do with regards to some food that can effect medication (e.g. grapefruit can effect some blood pressure tablets)
- 13. In the meals that are served, what variety do you put in? Tell me about specific dietary needs? *Answer guide:* Low Sodium, Vegetarian, Vegan, Diabetes, Gluten Free, Low fat/cholesterol, Chewing/swallowing difficulties, Allergies, Other (please specify)
- 14. How often does a dietician visit your centre?

- 15. What is the role of the dietician in the planning of the meals?
- 16. Tell me about the quantity of your meals; how do you measure the portion size to allocate to individuals? Do all get same quantity of food?
- 17. How adequate and nutritious are the meals? Please explain further
- 18. What are the current and or future plans of MOWCS Brooklyn?
- 19. Tell me about the present and future challenges of the centre
- 20. Describe the awareness of MOWCS in this community?
- 21. Please describe the importance of this centre in this community.
- 22. What are the other services besides the food assistance that the centre is rendering to the elderly?
- 23. What other food assistance programs do you work with in the area?
- 24. What in your opinion needs to be changed or improved about MOWCS?
- 25. Why would people especially the elderly join your organization?



APPENDIX C: FOCUS GROUP DISCUSSION GUIDE WITH BENEFICIARIES OF MOWCS

- 1. Tell me what you understand about having enough food to eat (food security)?
- 2. The meals from MOWCS are not free, how do you as elderly afford these meals? Or by which means do you afford the meals?
- 3. Who do you think is likely to afford the meals and why?
- 4. What happens when you cannot afford these meals?
- 5. What do you think may be the challenges to ensuring that the elderly have enough food that is nutritious and meets all of their needs?
- 6. What are the successful ways that you think can assist in getting other older persons to participate in food assistance programs such as this?
- 7. What are other local food assistance programs available in this area?
- 8. What are the barriers that make it difficult for the elderly to participate in meal programs such as MOWCS?
- 9. Research has identified barriers to participating in meal programs such as inadequate transportation, social discomfort, or lack of awareness that programs exist. What are some ways to address or overcome these and other barriers to participation?
- 10. How do you feel about being known that you receive meals from MOWCS? What do people say and think about older persons who receive meals from MOWCS? How likely is it that those who receive meals are stigmatized or feel bad about receiving meals from MOWCS? If there is stigma, why is that so?
- 11. There is evidence of a perceived stigma placed on those that participate in meal programs. What are some ways this stigma can be reduced or eradicated?
- 12. What are some assets in the community that could be used to support the elderly to have enough food that is varied, adequate and nutritious?
- 13. Besides the meals, what other aspects of the service do you like the most? What aspects do you like the least? Why?

- 14. Tell me about the promotion of MOCS in this community
- 15. How would you recommend MOWCS to others?

