

Self-care of older persons in the Potchefstroom district

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*"Take courage!
Do not let your hands be weak,
for your work shall be rewarded."
2 Chronicles 15:7*

ABSTRACT

Keywords: Self-care (self-care agency, self-care agent; self-care deficit); self-care support groups, older person; economic factors; unintentional self-neglect; health promotion; empowerment; autonomy; quality of life.

INTRODUCTION

The number of older persons is growing at a shocking rate. In spite of this reality, the South African health care sector does not prioritise older persons, causing their health to be poorly managed. Not only does poor health management affect the health of the older person, but also economic factors. This causes a high burden on the public health sector of South Africa, with specific reference to the Primary Health Care (PHC) clinics. PHC clinics in this country are not only overcrowded due to staff shortages, but also owing to the rapidly ageing population and the large number of younger persons affected by the high unemployment rate of South Africa.

The above-mentioned factors keep the professional nurses in the clinic from spending time on proper physical examinations and provision of health education to older persons. This causes older persons to lack knowledge regarding self-care, potentially leading to unintentional self-neglect, which decreases their quality of life. Studies conducted on older persons concluded that the older person wants to be involved in health promotion, but needs the necessary knowledge to take care of him- or herself. Therefore, the researcher's overarching aim with this study was to develop guidelines to facilitate self-care amongst older persons. Such guidelines aim at constituting an indirect approach to promote the health of the older person. Health education on self-care should be conducted in self-care support groups, since community experience teaches that some older persons in the community do not apply self-care skills learned without some form of support. The aim with these guidelines is to decrease unintentional self-neglect by empowering the older person to make autonomous decisions regarding self-care, in order to increase quality of life.

RESEARCH AIM AND OBJECTIVES

In order to reach the overarching aim of this study, which comprises the development of guidelines to facilitate self-care amongst the older persons in the Potchefstroom district, the study firstly includes a literature review to understand self-care and related constructs from a theoretical perspective. Secondly, the *Appraisal of self-care agency scale-A (ASA-A)* and *Exercise of self-care agency scale (ESCA)* were used as questionnaires to assess the self-care of the selected older persons. Lastly, after determining the self-care of the older persons, the

study investigates the relationship between these two questionnaires through correlational analysis.

RESEARCH DESIGN

A quantitative, descriptive, correlational and contextual design was used in this study to reach the overarching aim and respective objectives.

RESEARCH METHOD

The researcher firstly conducted a literature review to understand self-care and related constructs. Thereafter the researcher employed two structured questionnaires, the ASA-A and ESCA, were employed to collect data. The questionnaires were developed to measure self-care (self-care is determined by measuring the self-care agency). These questionnaires were based on Dorothea Orem's self-care deficit theory of nursing, the same theory that this research study is based on. Minor adaptations were made to both the questionnaires prior to administration to the predominantly Setswana-speaking older population. The study formed part of the larger Multinational Prospective Urban and Rural Epidemiological study (PURE-SA study – ethical approval number 04M10). All the older persons identified in the peri-urban population of the PURE-SA study living in the Potchefstroom district and who were willing to participate were included in the sample. Trained fieldworkers assisted the researcher in data collection. Of the 198 older persons, 192 participated, accumulating to a 98% response rate. Lastly the researcher correlated the ASA-A and ESCA to determine their relationship as an added benefit to this research study.

RESULTS

The findings indicate that although the studied older population was of a lower socio-economic status with a lower literacy level, their overall self-care was relatively good. Seven self-care deficits were identified namely time management skills affecting self-care, energy deficit affecting self-care, sleep deprivation, lack of knowledge and ability to acquire knowledge with regard to health and self-care, lack of a rest, exercise and self-care programme, self-care deficit caused by physical deterioration and, lastly, the lack of performance of activities to prevent/decrease self-care deficits. These identified self-care deficits supported the development of guidelines to facilitate self-care amongst older persons, together with Menon's psychological health empowerment model, as well as an in-depth literature review on self-care and related constructs to understand self-care from a theoretical perspective. Furthermore, the study compared the ASA-A and ESCA questionnaires to determine the relationship between these questionnaires. The two questionnaires had a very good correlation with each other,

conclusion that either of these two questionnaires could be used to measure self-care of a population.

OPSOMMING

Sleutelwoorde: (Selfsorg (self-sorg agentskap, selfsorg agent self-sorg tekort), self-sorg ondersteuningsgroepe; ouer persoon; ekonomiese faktore; onbedoelde selfverwaarlosing; gesondheidsbevordering; selfbemagtiging; outonomie; kwaliteit van lewe).

INLEIDING

Daar is bevind dat die getal ouer persone met rasse skrede toeneem. Ten spyte van hierdie toedrag van sake, blyk die gesondheid van ouer persone nie 'n prioriteit te wees vir die Suid-Afrikaanse Gesondheidsdienssektore nie, wat lei tot die swak bestuur van ouer persone se gesondheid. 'n Direkte gevolg hiervan is dat dit 'n hoë las plaas op die Openbare Gesondheidstelsel van Suid-Afrika, met spesifieke klem op die Primêre Gesondheidsorgklinieke (PGS-klinieke). Die PGS-klinieke is nie net oorbelaas as gevolg van personeeltekorte, snelle groei van ouerpersoongetalle nie, maar ook die groot getalle jonger persone wat geaffekteer word deur die hoë werkloosheidsyfer en die swak ekonomie in Suid-Afrika, wat 'n toestroming tot die klinieke tot gevolg het.

Bogenoemde faktore veroorsaak dat verpleegkundiges nie genoeg tyd aan 'n persoon afstaan vir deeglike mediese ondersoeke nie en hulle derhalwe ook nie die nodige onderrig in selfsorg gee nie. Laasgenoemde lei noodwendig daartoe dat die ouer persone nie oor die nodige selfsorgkennis beskik nie, en onbewustelik toelaat dat hulle gesondheid verwaarloos raak, wat weer 'n direkte invloed op die ouer persoon se lewenskwaliteit het. Studies het bevind dat ouer persone graag betrokke wil wees by die bevordering van hulle gesondheid, maar nie oor die nodige selfsorgkennis beskik om na hulleself om te sien nie. As gevolg hiervan, was die hoofdoel met hierdie studie om riglyne te ontwikkel wat selfsorg van ouer persone fasiliteer. Hierdie riglyne vorm 'n indirekte benadering ten einde gesondheid by ouer persone aan te moedig.

Gesondheidsorgonderrig en selfsorg behoort met die hulp van ondersteuningsgroepe uitgevoer te word. Praktiese blootstelling in die gemeenskap leer dat die ouer persone nie selfsorgkennis sal toepas sonder die nodige ondersteuning nie. Hierdie riglyne is 'n poging om onbedoelde selfverwaarlosing te verminder deur die ouer persoon te bemagtig om op sy eie besluite rakende selfsorg te neem en derhalwe daardeur sy lewenskwaliteit te verbeter.

NAVORSINGSDOEL EN DOELWITTE

Die allesomvattende doelwit van hierdie studie was die ontwikkeling van riglyne ten einde die selfsorg van ouer persone in die Potchefstroomse distrik te fasiliteer. Die studie bied eerstens 'n literêre oorsig met die doel om die konsep selfsorg en verwante konsepte vanuit 'n teoretiese

perspektief te verstaan. Tweedens is die *Waardering van selfsorgagentskapskaal (ASA-A)*, en *Beoefening van die selfsorgagentskapskaal (ESCA)* as vraelyste gebruik om selfsorg by die gekose ouer persone te bepaal. Laastens is die verhouding tussen die twee vraelyste bepaal deur middel van korrelatiewe analise.

NAVORSINGSONTWERP

'n Kwantitatiewe, beskrywende, korrelatiewe en konteksuele ontwerp is gebruik in dié studie om die allesomvattende doel en onderskeidelike doelwitte te bereik.

NAVORSINGSMETODE

Die navorser het eerstens 'n literatuur studie onderneem om self-sorg en verwante konstrakte te verstaan. Daarna het die navorser twee gestruktureerde vraelyste, naamlik die ASA-A en ESCA is gebruik vir die inwinning van data. Hierdie vraelyste is ontwikkel ten einde die selfsorg van 'n persoon te meet (selfsorg word bepaal deur die meting van die selfsorgagentskap). Die vraelyste is gebaseer op Dorothea Orem se teorie van die selfsorgtekort in verpleegkunde, dieselfde teorie waarop die studie gebaseer is. Klein veranderinge is by beide die vraelyste aangebring voordat die vraelyste voltooi is deur 'n hoofsaaklik Setswanasprekende ouer persone. Die navorser se studie het deel gevorm van 'n groter Voorlopig Multinasionale Stedelike en Landelike Epidemiologiese studie, "Multinational Prospective Urban and Rural Epidemiological study" (PURE-SA studie), etiese goedkeuringsnommer 04M10.

Al die ouer persone wat geïdentifiseer is as die semi-stedelike populasie van die PURE-SA studie wat in die Potchefstroomdistrik woonagtig is en wat gewillig was om deel te neem aan die studie, is ingesluit in die steekproef. Opgeleide veldwerkers het die navorser bygestaan met die data-insameling. Van die 198 ouer persone wat geïdentifiseer is, het 192 deelgeneem aan die studie, wat 'n 98% responskoers teweegbring. Ten einde het die navorser die ASA-A en ESCA gekorreleer om hul verwantskap te bepaal as bykomende voordeel vir die studie.

RESULTATE

Die bevindings toon dat alhoewel die ouer persone wat aan die studie deelgeneem het, van die laer sosio-ekonomiese klas was, hulle algehele selfsorg relatief goed was. Sewe selfsorgtekortkominge is geïdentifiseer, naamlik swak kennis van tydsbestuur wat selfsorg affekteer, 'n tekort aan energie wat selfsorg affekteer, min slaap, te min kennis en die onvermoë om kennis ten opsigte van gesondheid en selfsorg te bekom, te min rus, oefening en geen selfsorgprogramme nie, selfsorg-agterstande wat veroorsaak word deur fisiese agteruitgang, en laastens, die afwesigheid van deelname aan aktiwiteite om selfsorgtekortkominge te voorkom/verminder. Hierdie geïdentifiseerde selfsorgtekortkominge, tesame met Menon se psigologiese gesondheidsbemagtigingsmodel asook 'n diepgaande literêre oorsig ten opsigte van selfsorg en verwante konstrakte ten einde selfsorg te verstaan vanuit 'n teoretiese perspektief, het die navorser ondersteun om riglyne te ontwikkel om selfsorg aan ouer persone te fasiliteer. Voorts het die navorser die ASA-A en ESCA vergelyk om te bepaal wat die ooreenkomste tussen die twee vraelyste is. Die twee vraelyste korreleer baie goed met mekaar, wat beteken dat enige een van die twee vraelyste gebruik sou kon word ten einde 'n selfsorgmeting in die gemeenskap te doen.

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LIST OF ABBREVIATIONS

ASA-A	–	Appraisal of self-care agency scale - A
ESCA	–	Exercise of self-care agency scale
HIV/AIDS	–	Human Immuno Deficiency Virus / Auto Immune Deficiency Syndrome
PHC	–	Primary Health Care
PURE-SA	–	Multinational Prospective Urban and Rural Epidemiological Study
SAMHS	–	South African Military Health Services
UNISA	–	University of South Africa

CHAPTER 1

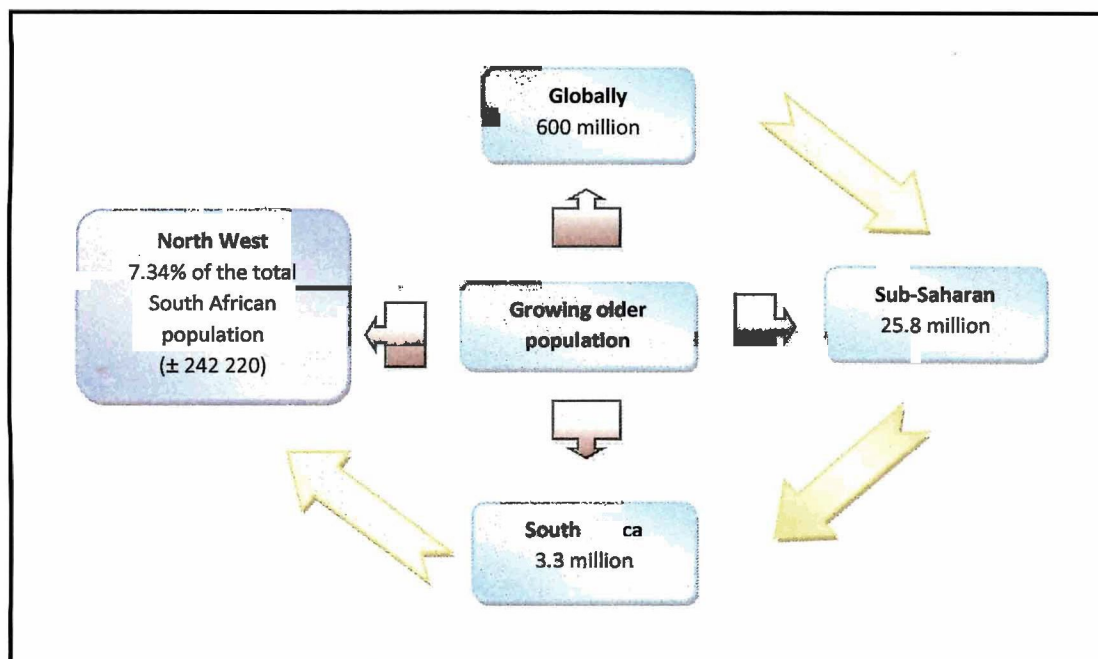
OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND RATIONALE FOR THE STUDY

Currently, the ageing of the global population is one of the most distinctive demographic events. In a population where there is resource scarcities, ageing has the potential of becoming a major issue, as the older population is forecasted to continue growing in the next two to three decades. Figure 1.1 indicates the global distribution of the older population. Worldwide, there are 600 million people over the age of 60 years. This number is expected to double by 2050 (Chucks, 2004:17; Pienaar, De Swardt, de Vries, Roos & Joubert, 2004:17). The United Nation's estimated projection of older persons in 2000 was 21.3 million, but the figure is expected to rise to 80.3 million in 2025. This is almost four times more than estimated. Thus, the increase of older persons is not limited to industrialised countries. Developing countries are also influenced by ageing at unprecedented rates (Chucks, 2004:14; Chucks, 2003:3).

Sub-Saharan Africa has a lower number of older people compared to other developing regions (Kimuna, 2005:13). In the African population persons over the age of 60 years represented 5.1% of the total population by the year 2000 (Chucks, 2004:14; Chucks 2003:3). According to Turok (2006:1), South Africa had 3.3 million persons over 60 years of age in the 2001 census. This number represented 7.5% of the South African population. Joubert and Bradshaw (2004:151), Anon. (2005:14), Geldenhuys (2007:54), and Wetzels, Harmsen, van Weel, Groi and Wensing (2007:3) state that due to the South African decline in fertility, HIV/AIDS affecting the life expectancy of young individuals in the South-African population, and the increase in medical technology, South Africa has the most rapidly ageing population in Africa. The percentage of older persons (60+ years of age) in the South African population was 6% in 2002, but is projected to be 14% in 2050, while persons aged 80 years and older are expected to more than double from 8% to 19% of the total older population (Ntusi & Ferreira, 2004:3; Wetzels *et al.*, 2007:3). In 2001, studies showed that the North West Province had 7.34% of the total South African population of 60 years and older (Joubert & Bradshaw, 2004:152).

Figure 1.1: Global distribution of the older population



Despite this reality, the South African health care setting does not prioritise older persons, and this influences the development and maintenance of geriatric services and facilities (Ntusi & Ferreira, 2004:3). Not only does the above-mentioned factor influence the older person, but also numerous other health care factors. These factors include health experiences, the nature of medical complaints, past experiences at health care services, as well as requests for information and advisory visits to health care facilities (Vožehová, Zikmundová, Zavázalová, Zaremba & Vlasák, 2003:48; Laditka, 2004:233). These factors do not only have an impact on the older person's health, but also the relationship between the older persons and those who care for them. The result is poor management of this rapid increasing population.

Another factor is economics, with specific reference to the older person's income and health care costs, and its effect on the older person's health care. In South Africa, only a few older persons receive a monthly income from a private pension fund. Those who do not have the privilege of a private pension fund have to rely on a social grant (old-age pension), which is supplied by the Government of South Africa. This pension amounts to R1,010 per month (National Department of Social Development, 2009:1). According to Watson (2008:72), 72% of the study population receive a social grant. This makes it very difficult for older persons' to pay for daily life expenses and health care.

South Africa's health care system consists of a private and public sector (Fish & Ramjee, 2007:29-37). Fish and Ramjee (2007:29-37) argue that medical inflation is a significant

challenge because the costs of the private sector increase at a more rapid rate than inflation. Thom (2007:17) adds to this by stating that in 2005, R100 billion, or 60% of money spent on health care, was for the private sector. The average expenditure of older persons for health care was ±R5,428 per year, making their monthly contribution ±R486 (Anon., 2005:14). When considering the study population's individual monthly income of only R1 010, which accumulates to R12,120 per year, it becomes clear that older persons are not financially able to contribute to a private medical fund. This places the burden of health care on the public health sector, which supplies free medical care to those unable to pay for health care (Shevel, 2005:1).

Primary health care (PHC) was introduced in South Africa in 1994 to reform the health services. The focus of PHC is to make essential services freely available, cost effective, affordable and equal to all members of the population, which included care and treatment of chronic and other diseases in the older person. PHC focuses on redistributing power, to build self-confidence and to increase independent health care. This has the potential to reduce medical care needs as well as health care costs (SA, 2004:3; Lloyd-Sherlock 2004:292-294; Joubert & Bradshaw, 2004:157). Studies conducted in 11 European countries show that a strong doctor-patient relationship (in the context of this study the professional nurse-patient relationship), based on good communication is crucial for older persons' active involvement in their own health care (Bastiaens, van Royen, Rotar Pavlic, Raposo, & Baker, 2007:40). This relationship is compromised by various factors, for example personnel working in health care facilities that are impatient and intolerant, poorly conducted physical examinations, insufficient attention to patients and abusiveness towards patients (Turok 2006:5; Bradshaw & Steyn, 2001:9; National Research Dissemination Workshop, 1999:67). Often, this uncaring attitude is not intentionally inflicted on older persons in the clinic. Factors such as staff shortages, high workloads and overcrowded public clinics (caused by approximately 38,000 vacant nursing posts) that lead to frustration amongst personnel, should get the blame (Turok 2006:5; Bradshaw & Steyn, 2001:9; National Research Dissemination Workshop, 1999:67). In light of these factors, older persons do not have the freedom or boldness to discuss the health or health care problems, and this may affect their quality of life. Guinn (2004:270) and Bastiaens *et al.*, (2007:38) stated that if older persons do not have any knowledge about their health care problems inclusive of chronic disease, they will not know how to treat or to take care of themselves. The less they know the less they will discuss with the health care provider. Gibbons (2006:324) added that self-care undertaken by a person means purposeful management of the self and could be considered intentional, whereas self-neglect, explained by Deyer, Goodwin, Sabrina Pickens-Pace, Burnett and Kelly (2007:1671) means that a person is not able to provide goods or services for himself in order to meet his own basic needs. According to Gibbons (2006:323): "Self-neglect, prevalence in the older population will become so significant that a preventative strategy will

have to be used". The older person does not neglect himself intentionally, but rather because of a lack of knowledge and/or unfavourable circumstances. According to Bastiaens *et al.*, (2007:40), older persons want to be involved in taking care of their own health. This could be achieved by promoting health through health education in the form of self-care support groups within in the PHC clinic or community context. Through these actions, the older person will be empowered with the necessary knowledge to make autonomous decisions. This empowerment will lead to a decrease in unintentional self-neglect (Lloyd-Sherlock, 2004:283).

Self-care, inclusive of self-care agency, self-care agent and self-care deficit, is defined by Wengström, Häggmark, Strander and Forsberg (1999:764) as activities performed by individuals (in this study older persons) to maintain life, sustain health and promote wellbeing. However, for older persons to apply self-care, self-care skills and knowledge are necessary. The researcher concurs that, in her experience working in a community setting, a service centre for the aged and PHC clinics that provides support regarding self-care skills and knowledge are necessary for the older person to maintain life, sustain health and promote wellbeing. According to Rana, Wahlin, Lundborg and Kabir (2009:37-38), supporting environments are very important to facilitate lifestyle changes and for this reason, support in the form of self-care support groups is a necessary component as health promotion technique to facilitate self-care. Without self-care support, those older persons living alone within the community will not be motivated to sustain a lifestyle change that facilitates self-care, especially if there is no form of encouragement or reinforcement. MacDonald Rogers, Blakeman and Bower (2007:192) explain that professional nurses should facilitate self-care support. This statement can be interpreted as indicating the necessity of the provision of health education by the professional nurses to older persons in self-care support groups.

Altun (2008:882) states that health education's main goal is to help older persons to accept behavioural change with regard to morals, viewpoints and attitudes. This, in turn, will help them to make some changes to their lifestyle in order to improve their quality of life. In order for the older person to sustain behavioural changes that were learned in health education sessions, some form of support is needed. This study advocates support in the form of self-care support groups. These self-care support groups have the advantage of promoting health by encouraging the older person to apply self-care and to provide them with the opportunity to interact with peers. Trasher (2002:113-114), Rana *et al.*, (2009:36-37), and Birse and Rootman (1999:i) define the term health promotion as the process of enabling people to increase control over their health and to improve their health. Several studies emphasise the beneficial effects of health promotion since it focuses on a healthy lifestyle, which includes diet, exercise, hygiene and more (Rana *et al.*, 2009:37).

Health education and health promotion goes hand in hand (Whitehead, 2009:866). Self-care health education in self-care support groups as a health promotion technique in community-located activities could be a very effective way to empower older persons to be knowledgeable and involved in self-care. In the studied population self-care support groups is not implemented yet, but seen as a form of empowerment to sustain self-care activities. Self-care encompasses methods of empowerment, identification of barriers, methods to overcome barriers and the tools health care providers (in this study the professional nurse) use to involve the older person to promote health (Guinn, 2004:267). Client involvement is seen as a right. It has a positive effect on the older person's health outcomes since he/she participates in self-care, which promotes health and prevents unintentional self-neglect (Bastiaens *et al.*, 2007:33).

Empowerment is not only the manner in which a person reclaims control over his life, but it also enables the individual to maintain his own health and manage interactions with the health care system and self. According to Hage and Lorensen (2005:237), and Birse and Rootman (1999:i), empowerment enables the older person to make autonomous decisions. A study conducted by Wetzels *et al.*, (2007:4) stated that some older persons' responses to lower level of participation in medical decisions were that "the layman is not qualified to make decisions". Many older persons are not empowered to make active, autonomous medical decisions regarding self-care of health problems.

According to Trasher (2002:115) and Bastiaens *et al.*, (2007:40), the term autonomy means that the older persons are involved in and able to make decisions, set goals, and preferences, and make choices regarding self-care. If the older person is able to make autonomous decisions regarding self-care and health, their quality of life will improve. According to Myrra, Vernooij-Dassen, Osse and Schandé (2005:265) autonomy is seen as a very important aspect of quality of life.

Quality of life is described by Plummer and Molzahn (2009:134) as life experiences, life fulfilment and wellbeing that are increased by taking control of health and health related problems (Wetzels, Van Eijken, Grol, Wensing, and Van Weel, 2005:918). Chambers and Thompson (2008:130-131) rightly state that the main focus of nursing as health promotion profession is to increase a person's quality of life by empowering a person (in this study older persons) to make autonomous decisions, in turn, decreasing health care costs and improve longevity (Altun, 2008:880).

1.2 PROBLEM STATEMENT

It becomes clear from the preceding literature review, personal professional experience and realities such as the growth of the older population and the interaction between health providers and the elderly which includes impatience and intolerance, lack of attention to patients and poorly conducted physical examinations (Turok 2006:5; Bradshaw & Steyn, 2001:9; National Research Dissemination Workshop, 1999:67) that research regarding self-care is necessary. This statement is supported by Wetzels *et al.*, (2007:2) whom mentioned that limited research has been conducted on how older persons could be involved in improving self-care. Research on self-care is necessary to prevent self-neglect prevalence because according to Gibbons (2006:323): "Self-neglect, prevalence in the older population will become so significant that a preventative strategy will have to be used". Therefore the researcher aims at empowering the older person to be able to make health- and health care decisions (Crawford Shearer, 2009:4) as well as broaden the professional nurses' familiarity regarding the degree of self-care deficit after determining the patient's self-care capabilities and restrictions (Orem, 2001:282), by posing the following core research question and objectives:

What guidelines should be developed to facilitate self-care amongst older persons in the Potchefstroom district? In order to answer this question, the following sub-questions were posed.

- What is known about self-care and related constructs in literature?
- What is the level of self-care of older persons living in the Potchefstroom district?
- What is the correlation between the *Appraisal of self-care agency scale – A (ASA-A)* and the *Exercise of self-care agency scale (ESCA)*?

The last research question will not directly influence the development of the guidelines, however, is seen as an added benefit to determine the relationship between the ASA-A and ESCA, as this has not been done in a research study before.

1.3 RESEARCH AIM AND OBJECTIVES

The overarching aim of the study is to develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district. In order to achieve this aim the following research objectives are set:

- **Objective 1:** Conduct a literature review to understand self-care and related constructs from a theoretical perspective.
- **Objective 2:** Assess the self-care of older persons living in the Potchefstroom district.
- **Objective 3:** Correlate the *Appraisal of self-care agency scale – A (ASA-A)* and the *Exercise of self-care agency scale (ESCA)*.

1.4 ASSUMPTIONS OF THE RESEARCHER

The following meta-theoretical, theoretical and methodological assumptions define the framework within which the researcher conducted this study.

1.4.1 Meta-theoretical assumptions

The researcher is a Christian with Christian values and therefore views the participants in the study from this perspective. The Biblical truth forms the basis of the meta-theoretical assumptions of this research study.

- **Man**

Man is unique. God created human beings that physically live on earth until his/her physical health deteriorates so much owing to the ageing process that the physical body dies (in normal circumstances) and only the spirit stays alive and goes to heaven to live with God in harmony forever. In the Christian religion, man is seen as a "temple of God". This temple must be taken care of in order for God to live in it. Taking care of oneself takes place holistically, since human beings consist of an external and internal environment that encompasses the physical, psychological, spiritual and social domains. These domains are in constant interaction with one other; when any one of them is negatively affected, the others are also affected. In this study, the term man refers to the older person.

Older person(s) refers to a male or female 60 years and older (Kimuna, 2005:13). In this study, the researcher uses the term *older person(s)*. However, there are various other terms that can be used, such as older patient, senior, elderly and older consumer (Wetzels *et al.*, 2007:3) (see chapter 2 [2.3]). It should also be noted that, when referring to the masculine pronoun, he/him/himself, it refers to the older person, whether male or female.

- **Health**

In the Christian religion, a healthy person does not only encompass a healthy body, but also a healthy soul. The human being constantly strives through his whole existence for physical, psychological, social and spiritual health. Older persons experience more health problems due to senescence (Clark, 2008:496). Clark (2008:496) explains senescence as the progressive weakening of body systems that increases the risk of death as a person ages. This means that there is a constant deterioration of physical capabilities and an increase in chronic disease as a person ages, placing the older person at a greater health risk than a younger person. Due to the signs of ageing, the older person is more prone to isolate himself. This happens because older persons do not have energy and physical means to interact with other older persons and professional nurses with regard to health care, as they would have liked to. The older person is therefore not empowered to make autonomous decisions with regard to self-care, and this might lead to an increase in health risks.

- **Environment**

The environment where this research study was conducted is the peri-urban district of Potchefstroom, called Ikageng. This environment (district) is of a poorer socio-economic status than the city of Potchefstroom. The majority of older persons living in the Ikageng environment use the public health sector for health care, because they only receive a small social grant from the Government each month. These older persons are highly affected by poor health care services delivered at the PHC clinics. The reasons for this include overcrowding, lack of resources and shortages of staff attending to these patients.

- **Nursing**

Nursing is a service that strives to optimise the health of individuals, families and communities by promoting, maintaining and restoring health. In this study, nursing is seen as the activities that the professional nurse undertake (with specific reference to health education in self-care support groups) to ensure the holistic health of older persons. From a nursing perspective the researcher believes that God can be seen as a caregiver since, throughout the Bible, He heals his children both physically and spiritually. God continuously encourage His children to live in a way that ensures holistic health, which includes physical, psychological, spiritual and social wellbeing. When looking at the Ten Commandments set by God to guide a Christian's life, a person that obeys these commands will have physical, psychological, spiritual and social health. God

is good and He encourages His children to be good to others and to care for them, especially for those in need. This leads to the rhetorical question: "What is more fulfilling than doing well to others?" When a person is in need of help, however small or large, and you try to help that person, there is nothing that compares to that feeling of fulfilment afterwards. It is this feeling that motivated the researcher to become a professional nurse and to help with the improvement of the quality of life of the older person.

1.4.2 Theoretical assumptions

The theoretical assumptions include the central-theoretical argument, which includes the hypothesis, conceptual definitions and theories of this research study.

1.4.2.1 Central theoretical assumption

The review of the literature and assessment of self-care of the older person provides a basis for the development of guidelines to facilitate self-care amongst older persons. The correlation between the ASA-A and ESCA questionnaires determines the relationship between these two questionnaires.

The following hypotheses were formulated to examine the relationship between the ASA-A and ESCA questionnaires (see chapter 3 [3.2.3]):

- H₀: There is no correlation between the ASA-A and ESCA.
- H₁: There is a positive correlation between the ASA-A and ESCA.
- H₂: There is a negative correlation between the ASA-A and ESCA.

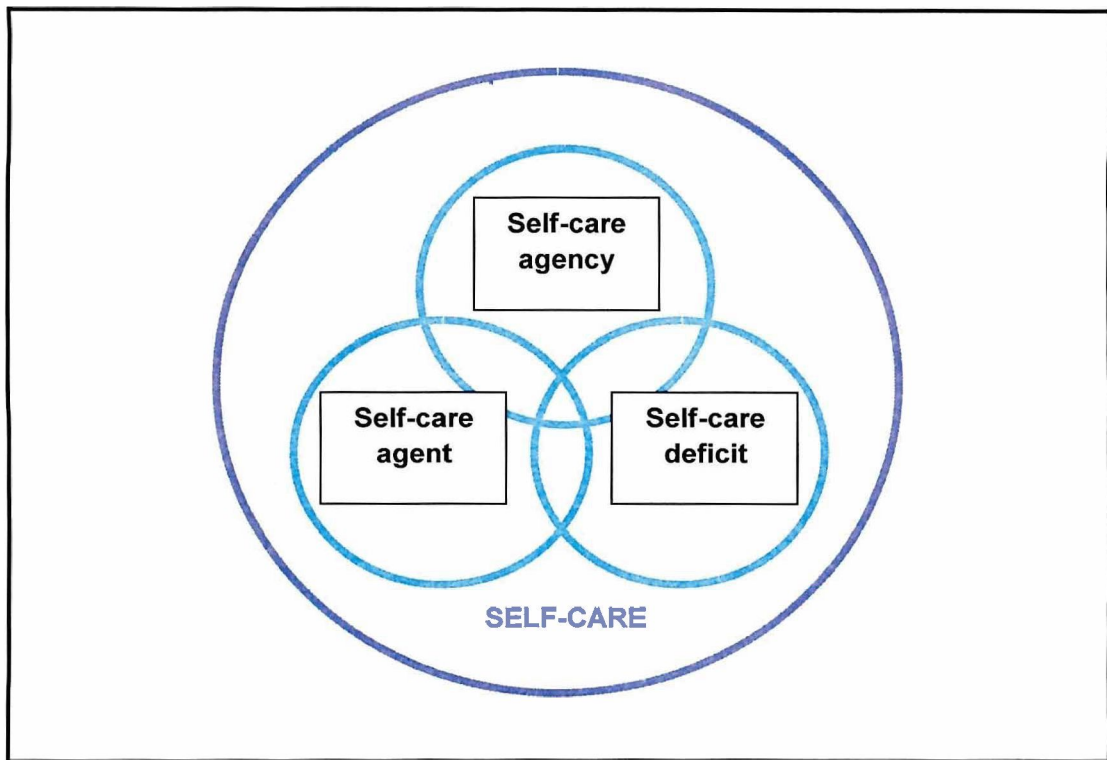
1.4.2.2 Conceptual definitions

The following concepts are central in this study and are defined as follows:

- **Self-care**

In this study, the term self-care encompasses the self-care agency (capability and power), self-care agent (the older person) and self-care deficit (limitation in self-care agency) (Orem, 2001:53, 269-272) (see figure [2.1] and chapter 2 [2.2.1]). If there is a self-care deficit in the self-care agency, the nurse must intervene to optimize self-care.

Figure 1.2: Self-care encompassing self-care agency, self-care agent and self-care deficit



According to Orem (2001:53), and Wengström *et al.*, (1999:764), self-care is defined as the deliberate activities a person engages in to maintain life and health. In this study, self-care refers to the deliberate actions older persons engage in to prevent or eliminate health hazards and promote human functioning (Johnston *in* Fitzpatrick & Whall, 1983:143).

Dorothea Orem's self-care deficit theory of nursing consists of three types of self-care activities namely (Clark, 1999:91-92):

Universal self-care, which includes intake of sufficient air, food and water, isolation and social interaction, rest and activity;

Developmental self-care, which includes knowledge acquisition, reasoning and developing skills to decrease health deviation; and

Health deviation self-care, which includes activities undertaken to manage and prevent health deviation.

- **Self-care agency**

Orem (2001:53) and Evers, Isenberg, Philipsen, Senten and Brouns (1993:332) define the concept self-care agency as the capability and power a person has to engage in self-care operations. In this study, the term self-care agency refers to the capability and power that the older person has to meet his self-care needs to be consciously in control of his human functioning and progress (Tomey & Alligood, 2006:271; Lauder, 2001:96; Callaghan, 2006:45) (see chapter 2 [2.2.2]).

- **Self-care agent**

According to Orem (2001:268), and Tomey and Alligood (2006:271), the term self-care agent refers to the individual that engages in self-care. In this study, the self-care agent is the older person engaging in self-care (see chapter 2 [2.2.3]).

- **Self-care deficit**

Self-care deficit means that there are limitations in the self-care capability and power of the self-care agent to meet therapeutic self-care demands (Orem, 2001:282) (see chapter 2 [2.2.4]).

- **Self-care support groups**

MacDonald *et al.*, (2007:192) define self-care support as a service that health and social services provide to help older persons to improve self-care. Self-care services are provided to older persons in this study in the form of self-care support groups as Rana, Wahlin, Lundborg and Kabir (2009:37-38) stated that supporting environments are very important to facilitate lifestyle changes. In this study the aim of self-care support groups is to empower older persons by providing them with self-care skills. These skills could be facilitated through health education, small discussions and technology and aim at helping the older persons to sustain and reinforce lifestyle changes in order to improve the quality of life and decrease health care costs (see chapter 2 [2.2.5]).

- **Unintentional self-neglect**

In this study, unintentional self-neglect means that the older person does not have or partially lacks the self-care agency to engage in self-care. According to Lauder (2001:101), the self-care agency of an individual determines if he is prone to unintentional self-neglect. Unintentional self-neglect could be the result of a lack of self-care knowledge. On this point, functional impairment can be added as another factor that affects the self-care agency of an older person, especially physical deterioration that could inhibit the older person from engaging in self-care (see chapter 2 [2.5]).

- **Health promotion**

Dennill, King and Swanepoel (1999:14) define health promotion as a comprehensive approach to prevent health deterioration. Health could be promoted by implementing different strategies such as health education, self-care, mass communication and community development. In this study, professional nurses who provide health education on self-care to older persons in self-care support groups achieve health promotion. According to Whitehead (2009:866-867), health education promotes health, empowers older persons to care for themselves and as an important practice in community development and PHC programmes (see chapter 2 [2.6]).

- **Professional nurse**

The South African Nursing Council (SANC) refers to the professional nurse as "a person who is registered as a nurse or midwife in terms of the Act" (South African Nursing Council scope of practice, R.2598). According to the New Oxford Thesaurus of English dictionary (NOTE) (2000:753), *professional* represents an *expert, skilled, competent, capable, trained, practiced or experienced person* while the term *nurse* represents a *caregiver* (NOTE, 2000:657). In the context of this study the two terms *professional* and *nurse* combined means "*expert caregiver*". Therefore in this study the professional nurse will be referred to as the expert caregiver.

- **Empowerment**

The term empowerment comes from the term “power”, which means that a person has control (Menon, 2002:28). One of the reasons for developing guidelines is to provide the older person in the community with the power to care for himself. According to Crawford Shearer (2009:4), the term empowerment means a person is able to make health- and health care decisions. In this study, empowerment refers to the older person that is equipped with the necessary information about self-care. This knowledge provides him the power to make autonomous self-care decisions, which will enhance the quality of life and decrease health care costs (see chapter 2 [2.7]).

- **Autonomy**

Autonomy is defined by Matsui and Capezuti (2008:141); Allen-Leigh, Katz, Rangel-Eudave and Lazcano-Ponce (2008:214); and Gibson, Talbot and Toneguzzi (1995:1003) as the capability of an individual to make independent decisions regarding self-care. Therefore, the older person is empowered to make autonomous decisions regarding self-care, and consequently quality of life is enhanced. The same authors mention that autonomy can only be developed through learning, in this study health education provided by professional nurses (see chapter 2 [2.8]).

- **Quality of life**

Plummer and Molzahn (2009:140) define quality of life as an indefinable, personal perception of a person's lived experience and its quality. Gibson *et al.*, (1995:1003) state that a person is empowered when he is actively involved in decision-making with regard to self-care. This will lead to an overall improved self-care capability and health. Altun (2008:881) affirms that if an older person's health is improved, health risks decrease and the overall quality of life and life expectancy of the older person improve (see chapter 2 [2.9]).

1.4.2.3 Theories

Dorothea Orem's self-care deficit theory of nursing and Menon's psychological health empowerment model were used as frame of reference in this study. This theory and model are discussed in detail in Chapter 2 (see chapter 2 [2.2.6] and [2.7]).

1.5 RESEARCH DESIGN AND -METHOD

An overview of the research design and method is provided to orientate the reader to this study. A detailed description of the research design and method follows in chapter 3 [3.2 and 3.3].

1.5.1 Research design

The researcher used a **quantitative, descriptive, correlational and contextual** research design to reach the overarching aim as well as objectives 1, 2, and 3 of this study (see chapter 3 [3.2]). This design was adequate to conduct a literature review on self-care and related constructs, assess and describe self-care of the older person in the Potchefstroom district, and to correlate the ASA-A and ESCA questionnaires to determine their relationship. The results of objective 1 and 2 provided evidence for the development of guidelines to facilitate self-care amongst older persons in the Potchefstroom district, which was the overarching aim of this study.

1.5.1.1 Quantitative design

A research design is the blueprint for a research study, since it directs the choice of population, sampling method, measurement method, data collection and analysis procedure (Burns & Grove, 2005:40). This study makes use of a quantitative research design, which accommodated the use of descriptive and inferential statistics (Burns & Grove, 2005:211) (see chapter 3 [3.2.1].

1.5.1.2 Descriptive design

A **descriptive design** describes a situation as it naturally occurs with no manipulation of variables. Burns and Grove (2005:232) state that descriptive studies assist researchers in

making new discoveries, describe what already exists, explain the frequency of occurrence and the categorisation of information. This study measured the self-care of the older persons in the Potchefstroom district who formed part of the Multinational Prospective Urban and Rural Epidemiological study (PURE-SA study). Self-care is the capability and power a person have to engage in self-care operation, therefore self-care is measured, by determining the self-care agency (self-care capability and power) of the self-care agent (the older person). This is done to identify possible self-care deficits (self-care limitations) (Orem, 2001:53 & Evers *et al.* (1993:332). In this study, self-care was assessed through the completion of two questionnaires, namely the **ASA-A**, developed by Evers *et al.* (1993) and the **ESCA**, developed by Kearney and Fleischer (1979). Both these questionnaires measure self-care (self-care is determined by measuring the self-care agency), based on Dorothea Orem's self-care deficit theory of nursing (Evers *et al.*, 1993:332; Kearney and Fleischer, 1979:25-34). After data collection and analysis, the researcher obtained descriptive and inferential statistics (see chapter 3 [3.2.2]). The descriptive statistics enabled the researcher to reach objective 2. Objective 1 (the literature review), objective 2 (self-care assessment) and Menon's psychological health empowerment model were used to achieve the overarching aim of this study.

1.5.1.3 Correlational design

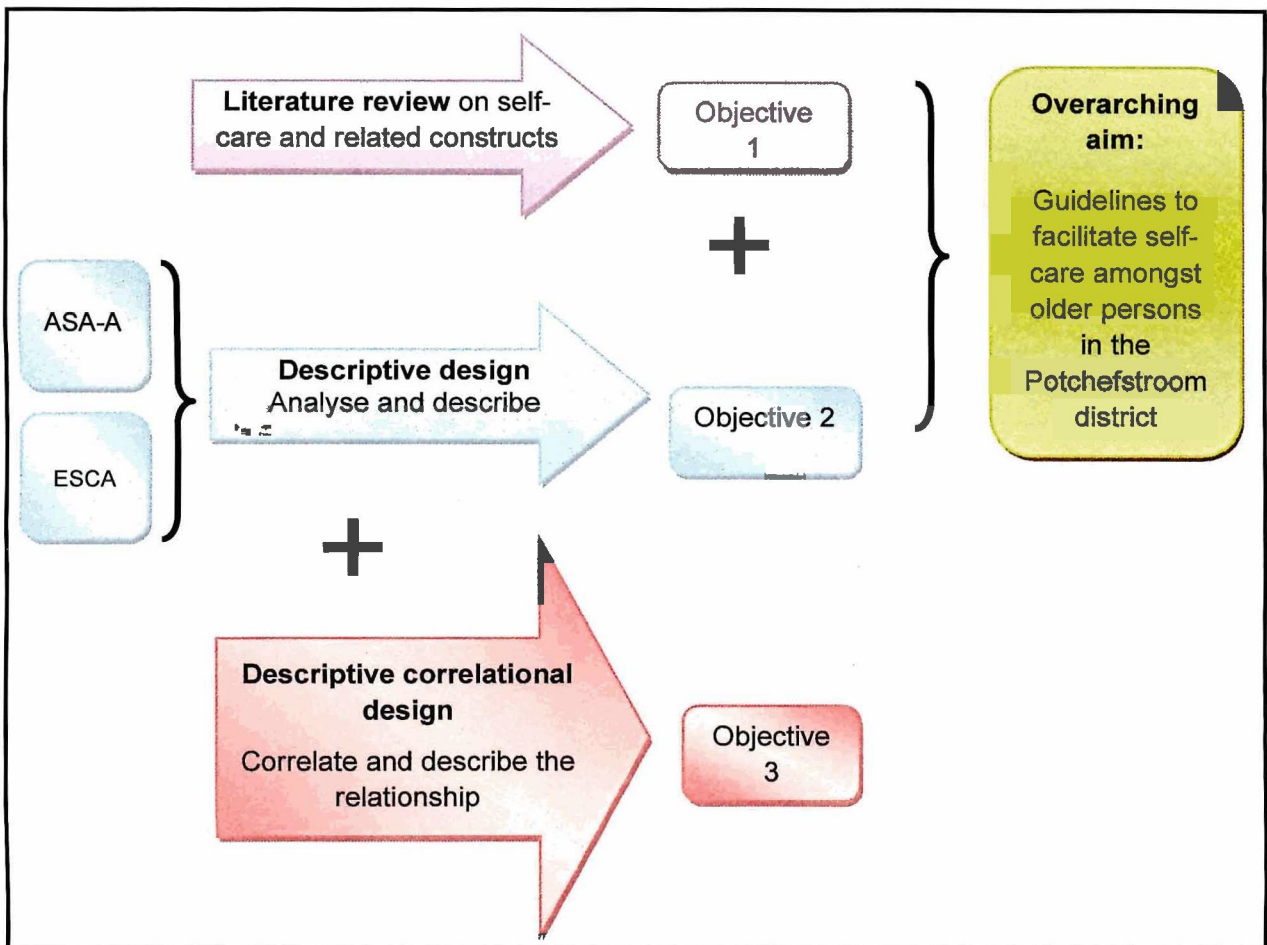
In order to reach objective 3 of this study, the researcher used a **correlational design**. This design determines the existing relationship between two variables (Brink, van der Walt & van Rensburg, 2006:105; Burns & Grove, 2005:26; 239). In this study, the ASA-A and ESCA were correlated to determine their relationship after obtaining inferential statistics (see chapter 3 [3.2.3]).

1.5.1.4 Contextual design

This study was **contextual** and conducted in the peri-urban district of Potchefstroom, situated in the North West Province of South Africa. The sample studied was a peri-urban population situated in the Potchefstroom district, which formed part of the PURE-SA study. The Potchefstroom population was used since the researcher works in the community as facilitator for PHC and community nursing students. This study could also form the basis for a larger study on self-care of the older person in the North West Province. An in-depth discussion of the context of this study is provided in chapter 3 [3.2.4].

Figure 1.3 below indicates how the components of the research design were used to reach the overarching aim, as well as objective 1, 2 and 3 of this study.

Figure 1.3 Demonstration of research design used in this study



1.6 RESEARCH METHOD

The research method consists of the sampling, population, data collection, data analysis, reliability and validity (Klopper, 2008:69).

The development of guidelines to facilitate self-care of older persons was approached in two phases. The first phase consisted of three steps, and the second phase of one step. The first phase consisted of the compilation of evidence regarding self-care of the older person in the Potchefstroom district as well as the correlation between the ASA-A and ESCA. The second phase involved the development of the guidelines to facilitate self-care amongst older persons in the Potchefstroom district. Table 1.1 indicates the project exposition of this study.

Table 1.1: Indication of the project exposition

Phase 1: Compilation of evidence regarding self-care of the older person in the Potchefstroom district for the development of guidelines to facilitate self-care for older persons in the Potchefstroom district	
Objectives	
Objective 1: Conduct a literature review to understand self-care and related constructs from a theoretical perspective	Step 1: Explore and describe the literature to understand self-care and related constructs
Objective 2: Assess the self-care of older persons living in the Potchefstroom district	Step 2: Explore and describe the self-care agency of the older person in the Potchefstroom district
Objective 3: Correlate the ASA-A and the ESCA	Step 3: Determine the relationship between the ASA-A and ESCA
Phase 2: Development of guidelines	
Overarching aim	
Aim: Develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district	Step 4: Formulation of self-care guidelines

The following section gives a broad summary of the methods used. In-depth descriptions of the methods used are discussed in the chapter applicable to the different steps.

Table 1.2 below indicates the research method (data collection, sampling population and sample, data analysis and reliability and validity). The table provides an overview; the detail is discussed in Chapter 3.

Table 1.2: Research methods used in the different phases and steps

Phase 1: Compilation of evidence regarding self-care of the older person in the Potchefstroom district for the development of guidelines to facilitate self-care for older persons in the Potchefstroom district.						
Objective 1: Conduct a literature review to understand self-care and related constructs from a theoretical perspective	Step 1: Explore and describe literature in order to understand self-care and related constructs.	Data collection: Literature review	Population and sample: Literature review on self-care and related constructs. • N = 117 sources • Purposive sampling	Data analysis: Literature review through content analysis	Reliability and validity: • Content validity	Methods detailed in Chapter 2
Objective 2: Assess self-care of older persons living in the Potchefstroom district	Step 2: Explore and describe self-care of the older person in the Potchefstroom district	Data collection: ASA-A and ESCA questionnaires	Population and sample: Older persons identified by the PURE-SA study staying in the peri-urban district of Potchefstroom, North West Province, South Africa. • All-inclusive sampling • N = 198 • n = 192	Data analysis: Descriptive statistics	Reliability and validity: • Internal reliability using Cronbach's alpha. • Construct validity	Methods detailed in Chapter 3 and 4
Objective 3: Correlate the ASA-A and ESCA	Step 3: Determine the relationship between the ASA-A and ESCA	Data collection: Correlation of factors identified during factor analysis	Population and sample: Same as for objective 2	Data analysis: Correlational analysis by using inferential statistics to determine the relationship between factors of ASA-A and ESCA • Cronbach's alpha • Factor analysis • Mean analysis of factors • Correlational analysis	Reliability and validity: • Internal reliability, using Cronbach's alpha • Construct validity	Methods detailed in Chapter 3 and 4

Table 1.2: Research methods used in the different phases and steps (continued)

Phase 2: Development of guidelines						
Overarching aim of this study:	Step 4:	Data collection:	Population and sample:	Data analysis:	Reliability and validity:	Methods detailed in Chapter 5
Develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district	Formulation of self-care guidelines	Integrating and synthesising results from step 1 and 2	Evidence from step 1 and 2	Deductive and inductive reasoning	• Content validity • Deductive and inductive reasoning	

1.7 RELIABILITY AND VALIDITY

- **Reliability**

Reliability means that if the instrument is repeated at two different occasions within a short period of time it produces more or less the same results (Brockopp & Hastings-Tolsma, 2003:215; Burns & Grove, 2005:374, Babbie, 2010:150; Maree, Creswell, Ebersöhn, Ferreira, Ivankova, Jansen, Niewenhuis, Pietersen, Plano Clark & van der Westhuizen, 2008:146). Both the questionnaires were used in different studies: the ASA-A since 1988 and the ESCA since 1979. This increases and ensures reliability. An in-depth discussion on the reliability of these questionnaires follows in chapter 3 [3.3.5.2].

- **Validity**

According to Langford (2001:95), Babbie (2010:153), Burns and Grove, (2005:214), and Maree *et al.*, (2008:147), validity means to what degree an instrument measures what it is supposed to measure. Validity is essential to ensure that the results of a study can be applied in practice (Burns & Grove, 2005:214). In the context of this study, validity refers to the ability of the ASA-A and ESCA questionnaires to measure the self-care of the older person, as it is supposed to measure. An in-depth discussion on the validity of these questionnaires follows in Chapter 3 [3.3.5.2].

1.8 ETHICAL CONSIDERATIONS

The study was conducted in an ethical manner and ethical issues that could have occurred during the research process were prevented. If the researcher did not succeed in conducting the research ethically, the scientific process would have been undermined and could have had potential negative consequences (Brink *et al.*, 2006:30).

Honesty towards self and the participants is an important ethical aspect, because honesty results in truthful reporting of results. According to Brink *et al.*, (2006:31), and Burns and Grove (2005:181-191), the main ethical principles applied in research and in this study are the right to self-determination, privacy, autonomy, anonymity, fair treatment and protection from harm and discomfort. The reason for applying the fundamental ethical principles was to ensure human rights were protected during the study. The researcher adhered to these principles. Refer to chapter 3 [3.4] for a detailed description.

This study is a part of the PURE-SA study that focuses on older persons. (Ethical approval Number 04M10 (see Appendix D and E)).

1.9 DISSERTATION LAYOUT

The dissertation consists of the following chapters:

- Chapter 1 Overview of the study
- Chapter 2 Literature review
- Chapter 3 Research design and method
- Chapter 4 Research results
- Chapter 5 Guidelines to facilitate self-care amongst older persons in the Potchefstroom district; evaluation of the study; limitations and recommendations for nursing practice, education and research

1.10 CHAPTER SUMMARY

In this chapter, the introduction and background, problem statement, research questions, research objectives and the researcher's assumptions were discussed. The research design and method, and ethical considerations were outlined (Klopper, 2008:69) and lastly a brief outline of the rest of the chapters was given.

Chapter 2 focuses on a literature review conducted in order to understand self-care and related constructs from a theoretical perspective.

CHAPTER 2

LITERATURE REVIEW

(Phase 1: Step 1)

2.1 INTRODUCTION

In chapter 1, an overview was given of the background and rationale for the study, the problem statement, research aim and objectives, assumptions of the researcher, research design and the method, as well as the ethical considerations of the study. In this chapter, an in-depth literature review was conducted to meet Objective 1 of this study (see below).

Objective 1: Conduct a literature review to understand self-care and related constructs from a theoretical perspective.

Table 2.1: Structure of research project indicating Step 1

Phase 1: Compilation of evidence regarding self-care of the older persons in the Potchefstroom district for the development of guidelines to facilitate self-care for older persons in the Potchefstroom district	
Objectives	
Objective 1: Conduct a literature review to understand self-care and related constructs from a theoretical perspective	Step 1: Explore and describe the literature to understand self-care and related constructs
Objective 2: Assess the self-care of older persons living in the Potchefstroom district	Step 2: Explore and describe the self-care agency of the older person in the Potchefstroom district
Objective 3: Correlate the ASA-A and the ESCA	Step 3: Determine the relationship between the ASA-A and ESCA
Phase 2: Development of guidelines	
Overarching aim	
Aim: Develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district	Step 4: Formulation of self-care guidelines

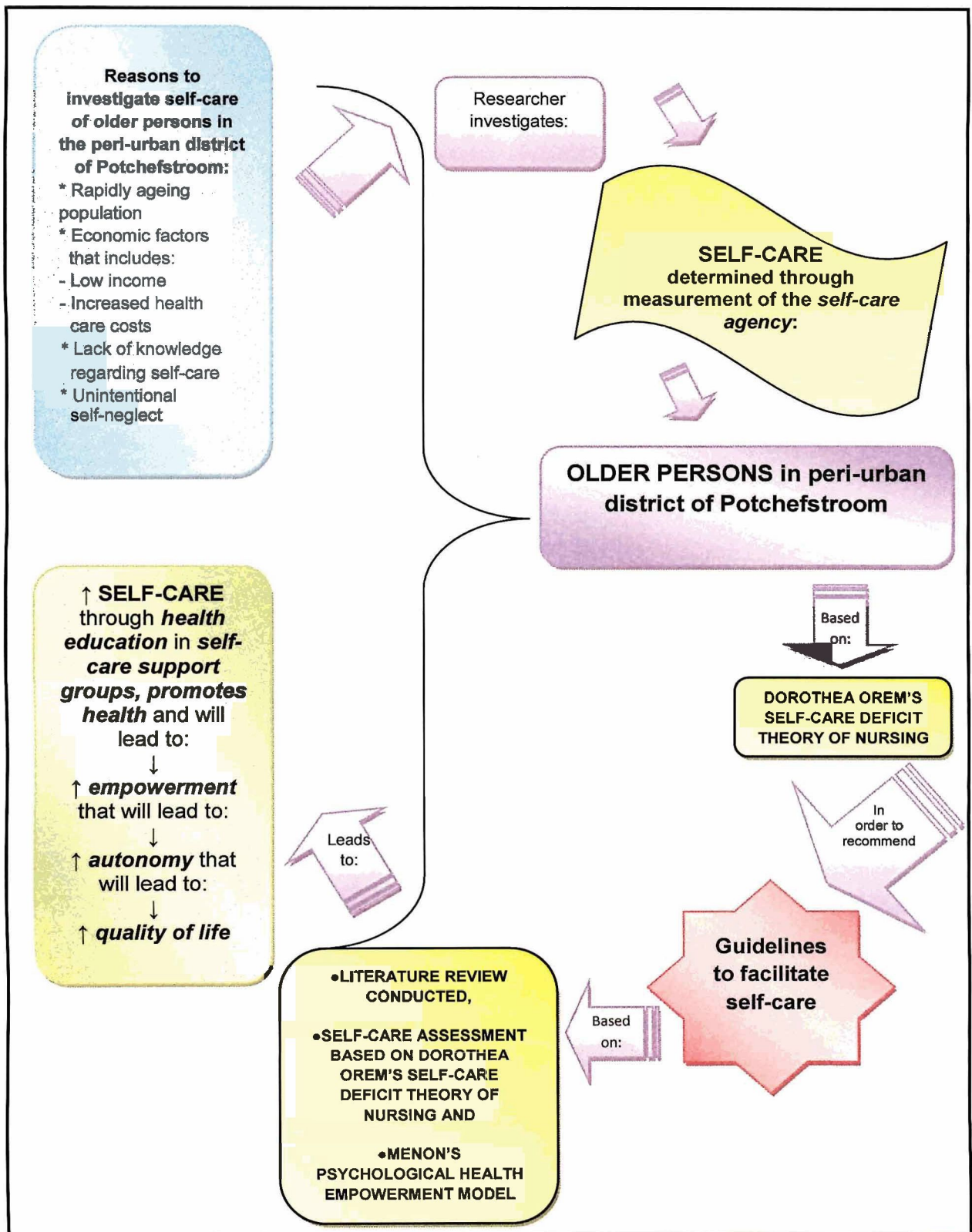
The South African population is growing at a staggering rate, with some of the main reasons being the decline in fertility, HIV/AIDS and the improvement of medical technology (Joubert & Bradshaw, 2004:151; Anon., 2005:14; Geldenhuys, 2007:54; Wetzels *et al.*, 2007:3). The above-mentioned reasons make South Africa one of the most rapidly ageing populations in Africa, since older persons are less affected by HIV/AIDS, and medical technology provides them with a longer life expectancy. A census done in South Africa during 2001 showed that the older population, persons of 60 years and older, made up 7.3% (3.28 million) of the total South African population. The projection for South Africa's older population in the year 2025 is 5.23 million, growing from 7.3% to 10.5% of the total population.

Bastiaens *et al.*, (2007:33) mention that the rapid increase of older persons in the global society presents challenges, which will result in greater demands on health care systems. This will encourage and force patients (in this study older persons) to be actively involved in managing their own health. In addition to the above, Bastiaens *et al.*, (2007:33) also mention that older persons feel that they want to be involved and informed about their health conditions and health care. This enables them to do something about their condition/s themselves, which positively effects their treatment compliance and general health status. This statement is supported by the National Research Dissemination Workshop (1999:67) who mentions that older persons themselves suggested that more action should be taken to include them in programme development and planning at clinic level.

Lloyd-Sherlock (2004:283) and Mothatle and De Graft Agyarko (1999:xi) mention that priority is not given to older persons, to improve their knowledge of self-care, health and health care at PHC level. According to the National Research Dissemination Workshop (1999:67) older persons could become more involved at PHC level by distributing brochures and implementing health education programmes. The distribution of brochures and health education programmes will provide the older person with important information on health, resources and services. The researcher's research indirectly aims to improve knowledge and involvement of the older person by establishing self-care support groups facilitated by the professional nurse. In line with this Guinn (2004:271) states that when the professional nurse and older person work together to improve knowledge, it will result in improved assessment, medication usage, treatment and referral. Cegala, Post and McClure (2001:1505-1506) add that the repetition of information, asking of questions, the summary and clarification of information are imperative aspects to memorise information and to improve health, which the researcher sees as imperative to increase the older persons knowledge regarding self-care

Figure 2.1 below indicates how the literature review on self-care of the older persons in the Potchefstroom district should be viewed. Firstly, reasons to investigate self-care of the older persons in the peri-urban district of Potchefstroom were identified. These reasons included the rapidly ageing population, economic factors with specific reference to low income and increased health care costs, possible lack of knowledge regarding self-care, and unintentional self-neglect. In this study, the self-care (self-care is determined by measuring self-care agency) of the older persons in the Potchefstroom district was assessed. This assessment is based on Orem's self-care deficit theory of nursing. The results of this assessment, Menon's psychological health empowerment model as well as the literature review conducted to understand self-care and related constructs led to the development of guidelines to facilitate self-care amongst older persons. If self-care is increased through health education in self-care support groups, health of the older person will be promoted and the older person will be empowered to make autonomous decisions regarding self-care, increasing quality of life.

Figure 2.1: Literature review on self-care of the older persons in the Potchefstroom district



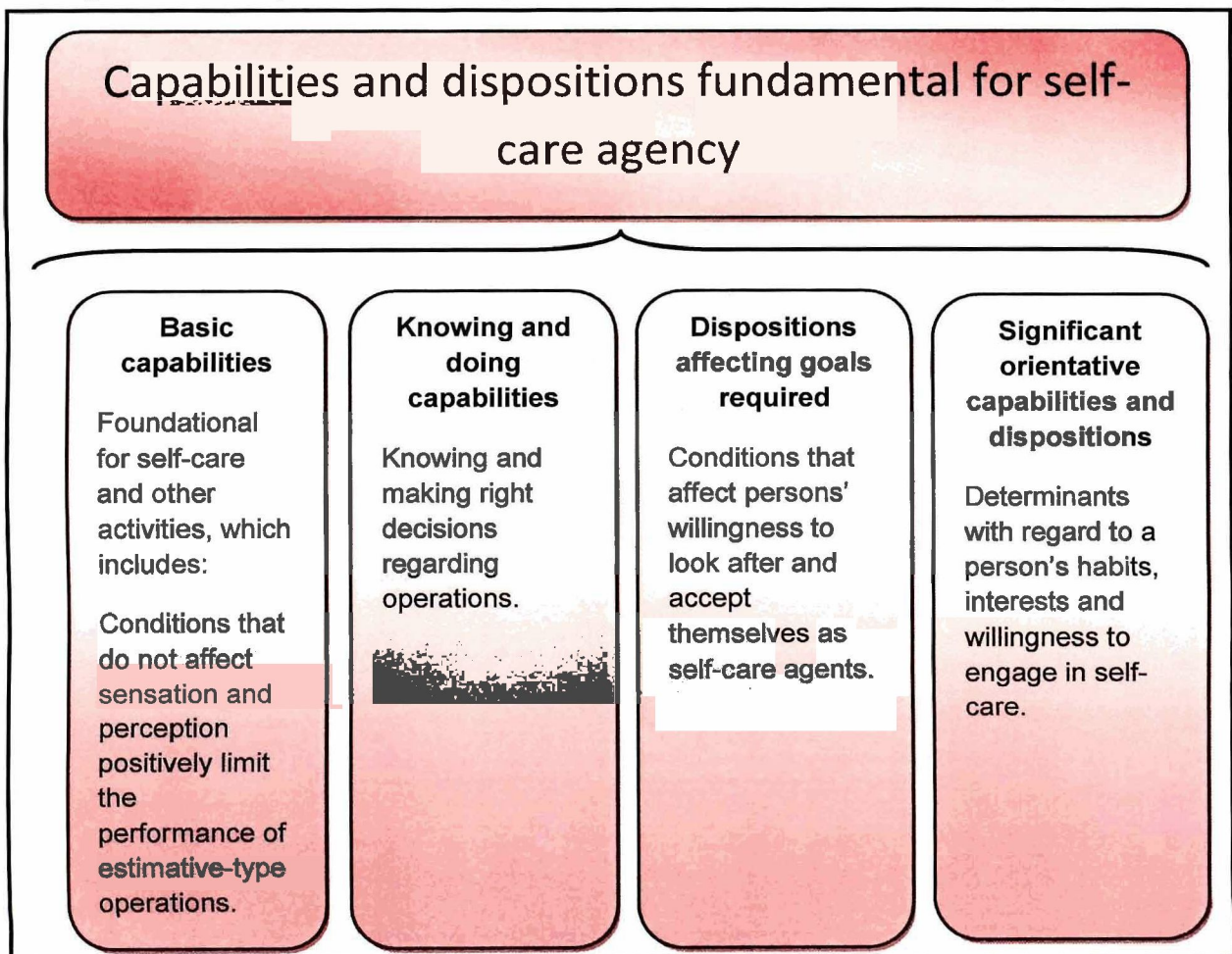
by various factors. This necessitated the assessment of the self-care of the older person in the Potchefstroom district, with the aim of developing guidelines to facilitate self-care amongst older persons after assessing self-care of the older person by using the ASA-A and ESCA developed to measure self-care. The professional nurse in self-care support groups facilitates such guidelines to decrease unintentional self-neglect and associated health care costs to the public health sector. Self-care support groups can assist the older person in making autonomous decisions regarding self-care and ultimately improve quality of life.

As discussed above, self-care agency consists of the capabilities and power the older person need to engage in self-care activities. Firstly, the *capabilities and dispositions fundamental for self-care agency* is discussed and, secondly, the *power components of self-care agency*.

- **Capabilities and dispositions fundamental for self-care agency**

Orem (2001:261-263) mentions the different sets of capabilities a person must be able to engage in as the foundation for a good self-care agency (See figure [2.2] below).

Figure 2.2 Capabilities and dispositions fundamental for self-care agency



2.2 SELF-CARE

Self-care encompasses the following concepts: self-care agency, self-care agent and self-care deficit. Self-care support groups (facilitated by the professional nurse) and Orem's self-care deficit theory of nursing are all discussed under this main concept.

2.2.1 Self-care

The NOTE (2000:857; 128) defines the term *self* as oneself, person, spirit, mind or intellect and the term *care* as control, looking after or management. According to the above-mentioned definitions, the term *self-care* means that a person manages himself; by engaging in deliberate actions to prevent or eliminate health hazards and promote human functioning (Johnston *in* Fitzpatrick & Whall, 1983:143). Other authors such as Ward-Griffen and Bramwell (1990:1070), Kendall and Rogers (2007:130), and Lauder (2001:96) describe the term self-care as activities a person engage in to promote health, prevent disease, assess symptoms and reinstate optimal healthy functioning. Self-care could also be understood as actions older persons engage in to ensure optimal health for a long period of time or preserve health and ensure healthy functioning by taking part in self-development activities (MacDonald *et al.*, 2007:192; Tomey & Alligood, 2006:269).

Self-care empowers patients (in this study older persons) to take care of their own health (Wilson, Kendall & Brooks, 2007:426). Self-care not only ensures competence and effectiveness in the care of older persons, but also alleviates demands on the public health sector. As seen, self-care has a very positive effect on both the older person and public health sector. According to Chambers and Thompson (2008:131), a third of patients stated that health care professionals by no means encourage self-care (in this study, professional nurses). This is a pity since self-care forms part of the blueprint of health promotion in community development of lower income countries (Whitehead, 2009:866).

In the following subsequent paragraphs the concepts of which the self-care encompasses is discussed (see chapter [1], figure [1.2]).

2.2.1.1 Conclusion statements regarding self-care

- Self-care encompasses the concepts self-care agent, self-care agency and self-care deficit.
- The term self-care means deliberate actions the older person engages in to maintain health through disease prevention, assessment of symptoms and reinstatement of optimal health where there is a health limitation.
- Self-care should be encouraged by professional nurses as self-care forms part of the blueprint of health promotion in community development of lower income countries. It alleviates health care demands and lowers health care costs.

2.2.2 Self-care agency

The theorist Dorothea Orem defines the concept of self-care as the capability and power a person has to look after the self. In this study the concept self-care agency refers to the capability and power of the older person to engage in self-care activities (Lauder, 2001:96; Ward-Griffen & Bramwell; 1990:1070, Tomey & Alligood, 2006:271, Callaghan, 2006:44). According to Trasher (2002:115) a person that has a good self-care agency (in this study the older person) has the power to make deliberate decisions about self-care. The reason for this is that he is equipped with the necessary knowledge, skills and motivation to apply self-care during decision-making and action-taking. This means the older person is empowered to make autonomous decisions. Orem (2001:53; 255) and Evers *et al.*, (1993:332) refer to the concept self-care agency as capability and power interchangeably vary according to age, health state, education, life experiences and cultural influences. The same authors added that the concept self-care agency is the deliberate care a person engages in to regulate internal functioning and development. The older person engages in self-care to meet three types of needs, namely universal, developmental and health deviation. Universal self-care refers to everyday needs that a person must satisfy. Developmental self-care focuses on human developmental events that occur in life, while health deviation self-care applies when there is human, structural and/or functional impairment (Clark, 1999:91; Morales-Mann & Jiang, 1993:738).

The older person's self-care agency is influenced by different factors such as finances, education and lifestyle (Trasher, 2002:115-116; Parissopoulos & Kotabassaki, 2004:5). As seen in the health profile (see [2.3], table [2.2]), these mentioned factors apply to the population in this study. Finally, due to maturation and senescence of the biological system of older persons, the reality of physical impairment in older persons is unavoidable. From the above-mentioned discussion, it can be concluded that the self-care agency of the older person could be affected

Above, the *capabilities and dispositions fundamental for self-care agency* were discussed. Below, the *power components of self-care agency* follow:

- **Power components of self-care agency**
 - Ability to maintain awareness of self as self-care agent, which includes the internal and external conditions significant for self-care;
 - Use of physical power for the commencement of self-care operations;
 - Ability to manage the body and its parts in executing movements necessary to start and finish self-care operations;
 - Ability to understand self-care and its components;
 - Motivation to apply self-care with regard to life, health and wellbeing;
 - Ability to make self-care decisions and implement these decisions;
 - Ability to acquire knowledge about self-care from dependable sources (in the context of this study, professional nurses) and to be able to retain and implement this knowledge;
 - A repetition of various adapted skills that include cognition, perception, manipulation, communication and interpersonal skills to perform self-care;
 - Ability to direct discrete self-care actions with previous successive actions in order to achieve regulator goals of self-care and; the
 - The ability to constantly perform self-care activities and integrate them with personal, family and community living (Orem, 2001:265).

2.2.2.1 Conclusion statements regarding self-care agency

- Self-care agency is the capability and power an older person has to engage in self-care activities and is dependent on the power a person has to make deliberate decisions regarding self-care.
- Capability and power vary according to age, health status, education, life experiences and cultural influences and is developed and managed through learning.
- The older person engaging in self-care agency addresses three types of needs, namely universal needs, developmental needs and health deviation needs.

2.2.3 Self-care agent

According to Orem's self-care deficit theory of nursing, the individual with unique needs and capabilities engaging in self-care is the self-care agent. The agent engages in a choice of actions and/or has the power to do so (Parissopoulos & Kotabassaki, 2004:1; Trasher, 2002:113, Tomey & Alligood, 2006:271, Orem, 2001:514). In this study, the self-care agent is the older person engaging in self-care activities.

2.2.3.1 Conclusion statement regarding self-care agent

- The self-care agent is the older person engaging in self-care activities.

2.2.4 Self-care deficit

According to Orem (2001:282), the term self-care deficit means that there are limitations in the relationship between the self-care agency (self-care capability and power), and meeting of therapeutic self-care. Self-care deficits could be complete or partial. Complete self-care deficit means that a person is incapable of meeting any therapeutic self-care demands, whereas partial self-care deficit means that a person is unable to meet therapeutic self-care demands. This is due to one or more than one self-care requisites within the therapeutic self-care demand that is not met. Orem (2001:282) also adds that professional nurses' familiarity regarding the degree of self-care deficit broadens after determining the patients' self-care capabilities and restrictions.

Orem (2001:282-284) proposes the following ways to determine if there is a potential self-care deficit or one that already exists. When one or more of the following factors are present there is a self-care deficit:

- Lack or insufficient engagement in self-care requisites;
- No, or limited awareness of self and environment;
- Not able to remember past experiences of behaviour;
- Not able to make decisions about self-care due to a lack of knowledge, or unawareness of internal and external circumstances;
- Impaired execution of actions that could cause another deviation in health; and
- Needs to implement without specialised knowledge and skills acquired through training and experience.

2.2.4.1 Conclusion statement regarding self-care deficit

- Self-care deficit is present when there is a lack of engagement in self-care requisites, limited awareness of self and environment, a lack of ability to remember past experiences, no ability to make self-care decisions due to a lack of knowledge or unawareness of internal and external circumstances, impaired execution of self-care actions and not having specialised knowledge and skills needed for self-care.

2.2.5 Self-care support groups

Self-care support groups constitute an important part of the concept self-care. If there is a lack of support, the older person living in the community is less likely to implement the learned self-care skills. Therefore the researcher chose self-care support groups as strategy to improve and encourage self-care in older persons. This statement is supported by Drageset, Eide, Nygaard, Bondevik, Nortvedt, and Natvig (2009:67), who mentioned that previous study results show that social support helps older persons to maintain normal functioning, and that support is associated and imperative for the improvement of quality of life.

Support (in this study self-care support) is a non-assistance-related provision that provides:

- A person (in this study the older person) with a sense of safety and security;
- Improvement of self-care in older persons with common concerns and interests;

- Nurture for each other by being responsible for care of others (increasing self-esteem and social interaction);
- Reassurance of self-esteem and competence;
- Peace of mind, since the older person knows there is assistance from other members in the group in times of need; and
- Relationship with the person who provides information and advice (professional nurse), as the absence of a relationship and guidance causes uncertainty and anxiousness.

MacDonald *et al.* (2007:192) and Hairon (2007:21) state that strategies should be implemented (in this study by professional nurses) to support self-care. These strategies include the establishment of self-care support groups, information brochures, self-care training sessions, utilisation of technology, guidelines to enhance self-care, general information in the clinic and lastly the implementation of awareness-raising policies to facilitate the enhancement of self-care. With regard to self-care support groups (the strategy followed in this study) Suter and Suter (2008:82) and Myrra *et al.* (2005:269) mention that when one focuses on the self-care support groups, older persons should receive information that is organised, chronologically planned, logical and relaxed. Thus ensuring older persons are more involved and motivated to take an active role in deciding on, and planning care (Bastiaens *et al.*, 2007:40). According to Gerson, Dorsey, Berg and Rose (2004:273), support in self-care activities improves older persons' daily functioning. Since many of them are isolated and feel lonely, they enjoy support from peers in the community.

The same authors implemented a programme to improve self-care in older persons and the programme had the following results:

- Older persons relied on professional nurses to offer the health education session;
- The professional nurse gave the older persons a sense of continuity;
- Older persons felt at ease with the professional nurse, because they knew each other and the health education took place in an informal way;
- Everyone enjoyed accessibility in a familiar setting; and
- Incorporation of the storytelling technique as means of giving health education is very effective, because some of the participants in the study's literacy levels were low. This technique helped the older persons to understand, associate and remember the health education given.

Support from professional nurses provides security, and therefore including them in self-care support groups provides the older person with a sense of security, and increased strength and energy (Drageset *et al.*, 2009:73-74).

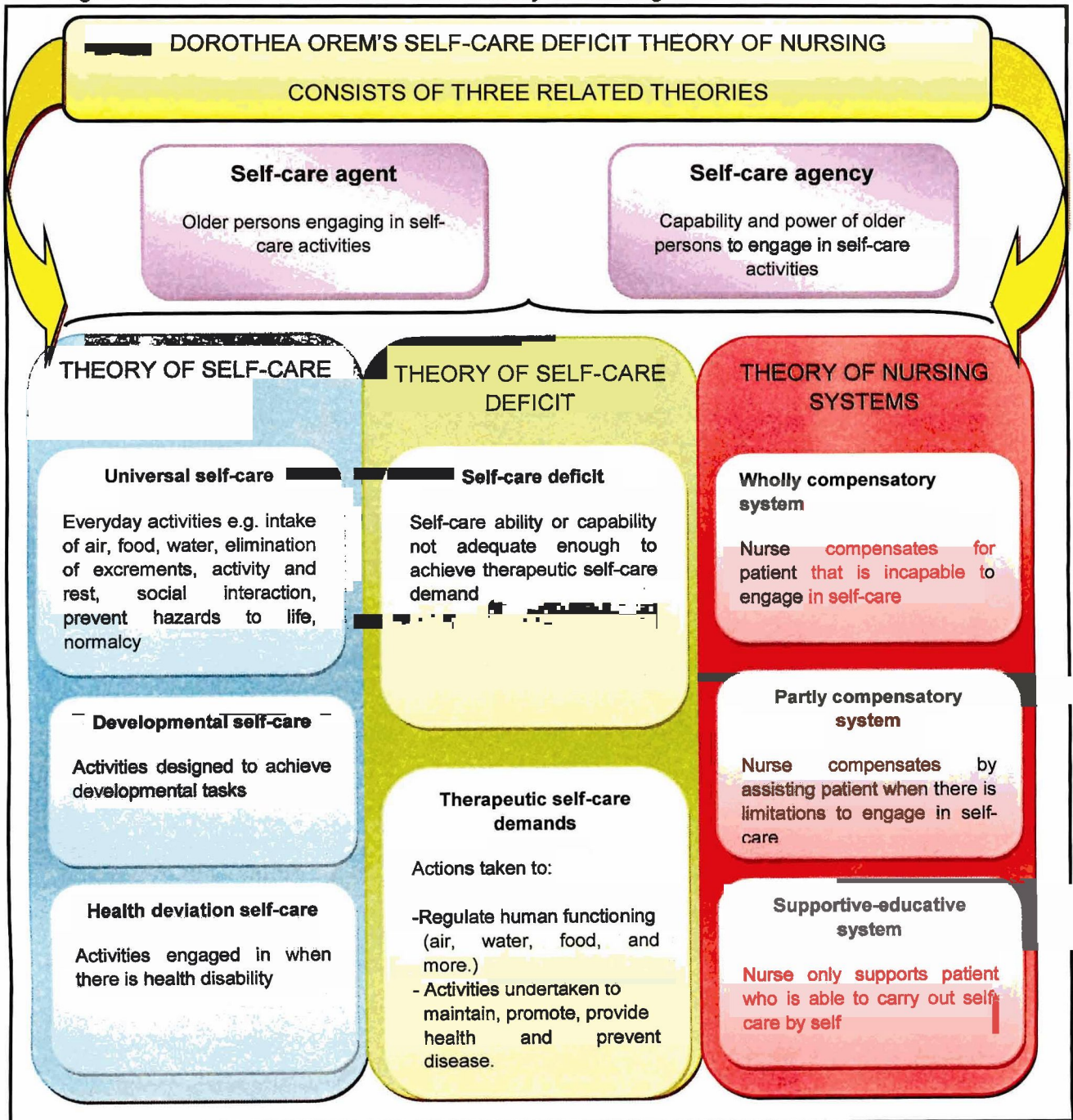
2.2.5.1 Conclusion statements regarding self-care support groups

- Self-care support is a service that professional nurses provide to support and empower the older persons by providing health education, small discussions and technology to improve quality of life and self-care.
- Older persons living in the community are less likely to apply learned self-care skills if there is no form of support. Therefore, support (in this study in the form of self-care support groups) is imperative for self-care compliance to improvement of quality of life. These groups must be conducted in an organised and relaxed atmosphere in order to alleviate uncertainty and anxiousness regarding health.
- Professional nurses conducting health education in self-care support groups give the older persons a sense of security, especially when using the storytelling technique when the older persons' literacy levels are low.

2.2.6 Orem's self-care deficit theory of nursing

Figure 2.3 (below) provides an understanding of Orem's self-care deficit theory of nursing.

Figure 2.3: Orem's self-care deficit theory of nursing



After studying different theories, Orem's self-care deficit theory of nursing was selected as the framework for this study. The theory comprises three connected theories namely the theory of

self-care, self-care deficit and nursing systems (Parrisopoulos & Kotabassaki, 2004:3; Clark, 1999:90-91; Tomey & Alligood, 2006:269). This theory advocates that a person (in the context of this study the older person) is dependent on self and responsible for self-care. Self-care could also be seen as actions older persons engage in to ensure optimal health for a longer period of time when suffering from, for example, a chronic disease (MacDonald *et al.*, 2007:192). Orem's theory focuses on the encouragement of a person (in this study the older persons) to maintain and to be accountable for his own health. Self-care is seen as a permanent process a person engages in to promote health and avoid disease. This includes the early recognition of disease/s and the management thereof in order to maintain structural integrity and individual functioning (Parrisopoulos & Kotabassaki, 2004:2-3). Therefore, if a self-care deficit develops in the ability to perform self-care, the necessary attention is needed from the professional nurse to obtain optimal health again.

2.2.6.1 Conclusion statements regarding Orem's self-care deficit theory of nursing

- The theory of self-care consists of universal, developmental and health deviation self-care. The theory of self-care deficit consists of self-care deficit and therapeutic self-care demands; and lastly, the theory of nursing systems consists of wholly compensatory, partly compensatory and supportive educative systems.
- The older person is dependent on self, responsible for self-care and should be encouraged to maintain and take responsibility for his own health.
- Self-care is a continuous process the older person has to engage in to promote health. Health depends on physical, psychological, interpersonal and social aspects that interrelate with each other in self-care.

2.3 THE OLDER PERSON

In this study, the term older person refers to any person, male or female, that is 60 years of age and older. Each individual (in this study the older person) has a body (physical), mind (psychosocial) and spirit, which are interchangeably connected to each other. These three concepts will be further investigated in order to gain a full understanding.

2.3.1 Body

Each person's body and health are affected by the ageing process, and even more so when already an older person. When the body is affected by physical and/or health deterioration, the mind and spirit are automatically affected. This happens because the older person who was previously engaged in normal daily activities cannot take part in them anymore due to physical deterioration. This could lead to a potential feeling of helplessness and/or depression. If the older person is educated in self-care to manage and accept physical and health deterioration, the mind and spirit of the older person is positively influenced, decreasing the feeling of helplessness. This would prevent/decrease possible psychological problems.

Giles and Dorjee (2004:261) define ageing as a lifespan process, which everyone has to experience at different time spans and lengths. According to Clark (2008:469) it is the "maturation and senescence of biological systems". The term senescence is explained by the same author as progressive weakening of body systems, which increases the risk of death as a person ages. Due to senescence of biological systems the older person is more prone to suffer from chronic disease and physical impairment, increasing self-care deficits and death. According to Kirchengast and Hasinger (2008:271), senescence leads to somatic (body), socio-economic, psychosocial (isolation, increased helplessness and vulnerability) and other health changes, which affect quality of life. White, Wójciki and McAuley (2009:2) support this statement, and add that demographic data also influences the body. In this regard specific reference is made to the physical activity of the older person. Older persons of lower socio-economic status are less likely to participate in exercise, which ultimately influences their psychological health. Therefore, the general health profile influences the body, mind and spirit of the older person. Table 2.2 below indicates the health profile of the studied population.

Table 2.2: Health profile of studied older population

Demographic profile	Total sub-population of older persons	N=198		
	Age ≥	≥ 60 years		
	Gender groups	Male:	37.9%	
		Female:	62.1%	
	Context	Peri-urban district of Potchefstroom		
Ethnic group	Only black Africans			
Socio-economic profile	Educational profile	None:	N=57	29%
		Primary:	N=108	55%
		Secondary:	N=20	10%
		Missing:	N=13	6%
	Main source of income	Pension:	N=142	72%
		Employed by themselves / other person / other organisation:	N=14	7%
		Family:	N=9	5%
		No income:	N=18	8%
	Missing:	N=15	8%	
	Persons living in houses of older persons	Orphans / Other	N=189	95% (5% missing)
	Number of people living in houses of older persons	≥ 6	N=44	22%
≤ 6		N=145	73% (5% missing)	
Household conditions of older persons	Electricity:	N=174	88% (8%=No; 4% missing)	
	Roof:	N=183	92% (3%=No; 5% missing)	
	Water supply: (Piped)	N=142	72% (23% community well / bore hole; 1% fetch from river / dam; 4% missing)	
Social support	Family:	21.7%		
	Children:	3.5%		
	Community:	4.5%		
	No support:	0%		
	Other:	70.3%		
Psychological profile	Stress at home	Never experienced stress:	N=54	27%
		Some periods of stress:	N=73	37%
		Several periods of stress:	N=47	24%
		Permanent stress:	N=8	4%
		Missing:	N=16	9%
	Financial stress	None:	N=62	31%
		Moderate:	N=50	26%
		High/severe:	N=36	18%
		Missing:	N=50	25%
	Depression signs and symptoms	Male:	11.5%	
Female:	20.2%			
Lifestyle / Behavioral profile	Tobacco	Male:	48%	
		Female:	34.1%	
	Alcohol	Male:	54.7%	
		Female:	18%	

Table 2.2: Health profile of studied older population (continued)

Bio-physical profile	HIV/AIDS status on rapid blood test	Male:	N=8%	7%
		Female:	N=8	7%
	Disability	Problem using hands:	Male: 12% Female: 16%	
		Trouble walking:	Male: 16% Female: 24%	
		Trouble bending:	Male: 31% Female: 22%	
		Trouble hearing:	Male: 10% Female: 4%	
		Trouble reading:	Male: 22% Female: 23%	
		Trouble seeing far:	Male: 11% Female: 12%	
	Tuberculosis and/or other lung diseases	Cough for at least two weeks:	N=30	15% (80%=No; 5% missing)
		Have sputum while coughing:	N=27	14% (81%=No; 5% missing)
		Blood in sputum:	N=4	2% (92%=No; 6% missing)
		Loss of appetite:	N=19	10% (83%=No; 7% missing)
		Involuntary weight loss of more than 3kg:	N=11	6% (86%=No; 8% missing)

Table 2.2 indicates the demographic profile of the studied older population. There are 62.1% females and 37.9% males above the age of 60 years. The socio-economic profile of the older persons indicates that they have a poor educational profile, since only 10% of the population have a secondary level of education. The population are also of poor socio-economic status since 72% receive a pension, 5% receive money from the family and 8% have no income. They receive poor support from family, friends and the community. The older persons' psychological profiles are also affected, since 37% experience some periods of stress at home, 24% several periods and 4% permanent stress, another 26% having moderate financial stress, 18% having permanent stress. Lastly, 20.2% females and 11.5% males experience signs and symptoms of depression. According to the biophysical profile of the studied population, only 7% of both females and males are infected with HIV, whereas tuberculosis and/or other lung diseases affect 46%. The statistics also indicate that a few older persons have physical disabilities with reference to problems using hands (females 16% and males 12%), bending (females 22% and males 31%), walking (females 24% and males 16%), hearing (females 4% and males 10%), reading (females 23% and males 22%) and seeing far as 12% of females and 11% of males had problems seeing far.

The above-mentioned statistics support White *et al.*, (2009:5), who mention that older persons experience physical deterioration, which causes functional limitations, decreasing energy levels (Risonar, Rayco-Solon, Ribaya-Mercado, Solon, Cabalda, Tengco & Solon, 2009:7), and increasing sleep deprivation (LaReau, Benson, Watsharotone and Manguba, 2008:197).

These mentioned factors could be addressed by the professional nurse facilitating the older persons in managing these functional limitations by providing health education on how energy levels could be increased. According to Cayley (2008:70), Sato, Kaneda, Wakabayashi and Nomura (2009:127), and Silver, Dietrich and Castellanos (2008:2084-2088), this could be done by increasing dietary intake and physical exercises. On the other hand, sleep deprivation can be improved by physical exercises (Alencar, Carvalho, Prado, Vantini, Vieira, Cardoso, Alencar and Paes, 2006:725-726). In order to achieve self-care with regard to higher energy levels and reducing sleep deprivation, the older person needs exercises, rest and self-care programmes as well as time management skills to implement this care.

In the subsequent paragraphs, the manner in which to increase a lack of energy and physical exercise are discussed. Secondly an exercise, rest and self-care programme is discussed, and lastly, time management skills to implement self-care effectively.

2.3.1.1 Decreased energy levels

Energy levels could be increased through dietary intake and physical exercises (Cayley, 2008:70; Sato *et al.*, 2009:127; Silver *et al.*, 2008:2084-2088).

- **Dietary intake**

A study done by Risonar *et al.*, (2009:6-7) found that older persons living in the community only have an energy intake of 65% of the daily required amount and, according to the same author and Silver *et al.*, (2008:2084-2088), a reduction of energy levels and weight loss in older persons could be the result of the following factors:

- decrease in the quantity of food consumed when ageing;
- reduced ability to prepare and consume nutritional foods;
- reduced intake of food due to social, psychological and dental factors; and
- economic factors (see [2.4]).

Silver *et al.*, (2008:2087-2088) also state that the older persons' energy levels could be increased by nutritional meals, which include the following:

- The consumption of high energy density meals by increasing the percentage of energy from fat, for example, mayonnaise, lemon butter, peanut butter, margarine, vegetable oil and ground nuts. Fat provides more energy than carbohydrate or protein. Therefore fat increases dietary intake, physical strength and body mass in older persons, but fat also has adverse effects on health when consumed in high amounts. Therefore fat sources high in oleic acid, mono-unsaturated and unsaturated fat should be used.
- Increasing protein, micronutrients and n-3 fatty acids, Vitamins A, C and D, calcium and magnesium, as a decrease in these supplements causes a decrease in energy levels.

Examples of food high in the above-mentioned nutrients include:

- *Protein:* Eggs, beans, meat, chicken, chicken livers, mopani worms;
- *Calcium:* Cheeses, yogurt, low-fat milk, canned salmon that includes edible bones, leafy green vegetables, for example, spinach, imfino, morogo;
- *Magnesium:* fruits, for example, bananas, nuts, vegetables such as spinach, imfino, morogo;
- *Vitamin A:* Squash, spinach, carrots, and sweet potatoes;
- *Vitamin C:* Citrus fruits, tomatoes, melons, berries, and green peppers; and
- *Vitamin D:* Fortified margarine, oily and eggs, and sunlight.

Another way to increase energy levels in the older persons is the use of multivitamins and minerals in tablet form (Silver *et al.*, 2008:2084).

● Exercise

Exercise in older persons is easily advocated, but not without problems, as mentioned by Cayley (2008:70) and Sato *et al.*, (2009:127). These authors state that the ageing process affects the physiological capabilities of the body, which adversely affects the

body's systems, especially the musculo-skeletal system. As a person ages muscle strength and power are decreased, causing a reduction in physical activities (exercise) and capabilities to perform daily activities. Muscle strength and power are lost due to the loss of muscle size (mass). Muscle size and strength are decreased by fast-twitching muscle fibre atrophy, which causes a decrease in general energy levels and capability to perform normal daily activities.

Exercise is a significant indicator and plays an important role in physical strength and power of the older person to increase quality of life and energy levels (Malmberg, Miilunpalo, Pasanen, Vuori, Oja, 2004:142). According to Damush, Stump, Saporito & Clark (2001:485), exercise (physical activity) is important in the management and prevention of diseases and physical deterioration of the older person. Strategies that support exercises should be implemented at community, PHC and individual levels.

The implementation of strategies to support exercises is not without problems, since there are reasons (barriers) why older persons do not want to engage in exercises (Sato *et al.*, 2009:123; Resnick, 2000:244). These reasons include:

- Fear of falling / injury;
- Pain increase;
- Impaired health;
- Lack of knowledge regarding the advantages of exercises;
- Lack of safe exercise environments;
- Unpleasant sensations linked with exercising; and
- Lack of support.

In order to eliminate the above-mentioned reasons (barriers), which inhibit the older persons in engaging in exercises, the older persons need some form of support (in this study through self-care support groups (Damush *et al.*, 2001:485; Resnick, 2000:244). Exercise programmes developed and facilitated by professional nurses should be moderate and should include an indication of benefits. The goals to achieve such benefits and the warning signs of too much exercise should be clear.

In order for exercise programmes to be successfully implemented, special attention should be given to older persons that have poor access to health information and live in environments that are not accessible and safe to exercise in. Poor access to health

information and non-conductive environments might be possible reasons for non-compliance to exercises (Damush *et al.*, 2001:485; Resnick, 2000:244-45).

2.3.1.1.1 Benefits of self-care support groups to encourage exercises

- Self-care support groups improve motivation for physical activities, because older persons participate together in the exercises;
- Verbal encouragement, especially by the professional nurse and peers in the self-care support groups, develop motivation and enthusiasm for older persons to partake in exercises;
- “Self-talk” education by the professional nurse, implemented during physical activities, would remind the older person of personal capability; and
- Rewards given at the self-care support groups after physical activities show significant compliance to exercises (Resnick, 2000:246-249). These rewards could be organised by the professional nurse contacting a sponsor to donate, for example, a key ring.

2.3.1.1.2 Benefits of exercise

Health education about the benefits of exercises is the first step in helping older persons to start and comply with an exercise programme and should be given in the self-care support groups. These benefits should include:

- Improvement of strength and power, especially for daily activities;
- Prevention of disability/diseases;
- Decrease in the risk of falling;
- Improvement of sleep; and
- Enhancement of social interaction, because temper and wellbeing are improved.

2.3.1.1.3 Goals to achieve the benefits of exercise

Older persons should exercise at least three days a week for 20 minutes at a time. The older person should use the large muscles in a rhythmic manner from modest to greater intensity and monitor self after setting an “exercise goal”.

2.3.1.1.4 Warning signs of too much exercise

The warning signs of too much exercise include:

- Difficulty in breathing;
- Wheezing;
- Coughing;
- Pain in the chest;
- Muscle and joint discomfort; and
- Tiredness, lasting longer than 30 minutes.

2.3.1.2 Sleep deprivation

The management of sleep deprivation affecting the older person includes exercise and non-drug management interventions to decrease sleep deprivation.

- **Exercise**

According to Alencar *et al.*, (2006:725-726), exercise not only increases total sleep time of older persons, but also improves the older person's willingness to follow a healthier lifestyle.

- **Non-drug management interventions to decrease sleep deprivation**

LaReau *et al.*, (2008:197) state that 65% of older persons above the age of 65 years suffer from sleep deprivation and, according to Vitiello (2000:18), the following factors prevent the older persons from sleeping at night:

- Sleep apnoea;
- Insomnia;
- Restless leg syndrome, which is the urge to move legs, described as "itching" or "irritation";
- Daytime napping;
- Depression;
- Alcohol usage; and
- Drug usage, because the older persons use a variety of medication that includes prescribed medication from different doctors as well as over-the-counter medication. In addition older persons also exchange medication with their friends, without knowing the side-effects and interactions of medication.

According to LaReau *et al.*, (2008:197-206) and Vitiello (2008:18), interventions to decrease sleep deprivation in a non-drug management manner include:

- Back massages;
- Relaxing music;
- Bathing at bedtime to ensure the body is at a comfortable temperature for sleeping, not too warm or too cold;
- Warm drinks, for example, warm milk, before sleeping;
- Decrease of extreme usage of the stimulant caffeine;
- Noise reduction;
- Closing of curtains to prevent light that acts as a stimulant to stay awake;
- Relaxation techniques, for example, breathing exercises; and
- Adequate sleep hygiene measures, which include personal hygiene, comfortable temperature of the room, control of light and noise in the room/house.

According to Vitiello (2000:21), guidelines to increase sleep hygiene include:

- Deciding on a sleep time;
- Developing sleep and rise times;
- Only turning to bed when feeling tired;
- Developing relaxation rituals before sleeping, for example, taking a warm bath;
- Ensuring comfortable light and temperature in the room;
- Ensuring that afternoon naps don't interfere with sleep at night;
- Exercising regularly;
- Avoiding the stimulants caffeine, alcohol and tobacco (which contain nicotine) before sleep time; and
- Avoiding using prescription drugs to sleep.

The checklist of Alencar *et al.*, (2008:725), as adapted for this study, could help the older person to improve sleep deprivation.

Table 2.3: Tick list for sleep deprivation

NO.	CRITERIA	Yes	No
1.	Am I sleeping at normal "bedtime?"		
2.	I looked after my personal hygiene, for example, washed hands, face, brushed teeth, and went to the bathroom.		
3.	My partner massaged my back for five minutes (only if possible).		
4.	My bed linen is straightened and clean.		
5.	I drank a warm drink before I went to bed.		

NO.	CRITERIA	Yes	No
6.	I am not talking to my partner when I need to sleep.		
7.	My TV/radio is off or at very low volume.		
8.	My room is free of light.		
9.	My room temperature is comfortable.		

In order to care for self by increasing energy and physical exercise, the older person needs an exercise, rest and self-care programme as well as time management skills to implement this care.

2.3.1.3 Exercise, rest and self-care programme

The following one-day rest, exercise and self-care programme was developed for this study for application on the day on which the professional nurse presents the self-care support group. This is only an example and could be changed by the professional nurse according to personal preference.

Table 2.4: Exercise, rest and self-care programme

Time	Activity
6h30-7h15	Wake up and personal hygiene care.
7H15-7h30	Coffee / tea and snack.
7h30-8h00	Exercise with member of self-care support group / husband / wife / child or individually.
8h00-10h00	Breakfast and personal activities.
10h00-12h00	Self-care support group presented by professional nurse or person appointed by professional nurse.

Time	Activity
12h00-13h00	Lunch.
13h00-17h00	Personal activities, which include socialising with friends and family / hobbies / environmental hygiene / afternoon nap not longer than half an hour, or any other self-care activities.
17h00 – 17h30	Exercise with member of self-care support group / husband / wife / child or individually.
17h30 – 22h00	Personal activities including personal hygiene.
22h00 – 6h00	Night sleep (8 hours a night).

2.3.1.4 Time management

The following time management guidelines were adapted from Cox (2006:43) and Lane (2008:113-114):

- Encourage the older person to identify self-care activities that he wants to engage in during the following week. This could range from taking a nap in the afternoon to exercising. During identification of these activities the older persons should be reminded that ageing produces slower motor movement. Therefore, adequate time should be allocated to make the identified self-care activities obtainable in order not to discourage the older person when planned activities are not met (Chambon, Droit-Volet, Niedenthal, 2008:676).
- The older person should write down the three or four identified self-care activities and determine when in the day his energy levels are high enough to engage in them. Self-care activities such as exercising should be engaged in at times when energy levels are high.
- The older person should discuss the identified self-care activities as well as the times of engaging in these activities with their family/friends. The older person should not feel discouraged when engaging in these activities even though there is possible disapproval from family/friends.
- The older person should eliminate distractions that could prevent him from engaging in the self-care activities.

- When decided on engaging in an identified self-care activity, the older person should set an alarm, in order to keep track with the start and end times of the activity. The older person should be encouraged to stay focused on the specific activity until the alarm goes off at the end of the activity.
- The older person should reward himself when having accomplished the self-care activity successfully in order to help sustain the new behaviour.

As discussed above, the body of the older person is affected by the signs of ageing, lack of energy and sleep deprivation. Therefore the older person needs a self-care, exercise and rest programme and time management skills to implement the self-care learned. The following section focuses on the mind (psychosocial) part of the individual (in this study the older person).

2.3.2 Mind

In this study, the mind consists of psychological and social parts, which are discussed separately.

2.3.2.1 Social mind

Various studies found that economic factors and health are the primary causes of older persons living alone in their communities. Social support and services available within the community may support those older persons who are living alone (Krivo & Chaatsmith, 1990:476).

Social support includes social networks and functional networks. This study focuses on functional networks. Functional networks include aspects of interactions between people, companionship, emotional support, and assistance and advice (in this study self-care health education provided by professional nurses in self-care support groups). These networks have shown a good relationship with quality of life and social health, since social health is subjective to the interrelationship between physical, psychological and social factors. Therefore, support (in this study self-care support), is important for the older persons' social wellbeing, health and quality of life. Although previous studies emphasised the importance of social support for psychological and physical wellbeing, these networks diminish as a person turns older. This is due to retirement, health problems and loss of relatives and friends. Therefore, the importance of the support given to older persons in functional networks will have a very significant effect on the health of the older person (Portero & Oliva, 2007:1054-1055). Self-care support groups are essential in the development of self-care in older persons.

2.3.2.2 Psychological mind

Positive psychological wellbeing and perception of personal physical health are influenced by social support, which in turn influences quality of life. Therefore, the importance to encourage strategies (pro-active and preventative) to promote health (body, mind and spirit) is of cardinal importance to increase the well-being of the older person (Portero & Oliva, 2007:1063).

As a person ages, many changes affect the psychological state of the older person. These changes include retirement, decreased income, social relationships, physical deterioration, health changes and the death of loved ones. The changes may cause potential psychological problems, such as depression, low self-esteem and isolation. According to Butler and Ciarrochi, (2007:608) acceptance based treatment can be used to address these problems. Acceptance based treatment is where the older person is advised to talk to peers, who are going through similar changes as themselves, or to the professional nurse. This will assist them in coping with the changes and lead to psychological and physical health. Acceptance leads to positive thoughts and allows a person to enjoy different experiences; it keeps the older person from focussing on the avoidance of experiences or situations that cause stress.

According to Meisenhelder and Chandler (2002:244), numerous studies found that there is a strong relationship between spiritual, psychological (self-esteem, depression) and physical health; the higher the spiritual level, the lower psychological problems (anxiety and depression).

2.3.3 Spiritual

There is a strong relationship between psychological and physical health, and spiritual commitment (Meisenhelder & Chandler, 2002:243; Lawler-Row & Elliott, 2009:44). According to Koenig, George and Titus (2004:554-560), the older a person becomes, the more active he becomes in spiritual activities, because spiritual activities support coping.

Callaghan (2006:43-50) mentions that spiritual growth influences the older person's self-care. "Spiritual growth is a component of health-promoting self-care behaviour and can be conceptualised as a productive capability of self-care operations". Older persons, who are routinely involved in spiritual practices, have better initiative and responsibility to care for themselves, if they have a supportive health care environment (in this study the public health sector). The public health sector should support the older person by providing resources, which include professional nurses and venues to engage in self-care support groups.

Due to the association between spiritual, physical and psychosocial health, professional nurses could combine the spiritual with self-care in the care of older persons (if the older persons

agree). Koenig *et al.*, (2004:554) mention that spiritual actions and attitudes are associated with social support (in this study self-care support groups), since spirituality increases psychological and physical health to an extent. Therefore spirituality is a very important coping mechanism and motivation for older persons experiencing increased physical deterioration.

2.3.4 Conclusion statements regarding the older persons

2.3.4.1 Body

- Each person has a body, mind and spirit. The physical body, strength and health are affected by the ageing process, which could in turn affect the mind and spirit of the older person and vice versa.
- Ageing does not only cause "maturation and senescence of biological systems", which means progressive weakening of body systems, but is also a life process that everyone experiences at different time, and for different lengths. Ageing increases the risk of self-care deficits and death as a person ages, because a person is more prone to suffer from chronic disease and physical impairment.
- Senescence not only causes somatic changes, but also economic and health problems which, in turn, cause isolation.
- Physical deterioration causes functional limitations, which includes decreased energy levels and sleep deprivation. Energy levels are enhanced by dietary intake and exercise, and sleep deprivation is resolved by exercise and non-drug management interventions.
- The older persons need exercise, rest and self-care programmes as well as time management skills to effectively care for self.

2.3.4.2 Mind

2.3.4.2.1 Social

- Social support has a very good relationship with quality of life, because social health is subjective to the interrelationship between physical, psychological and social factors.
- Older persons are affected by retirement, health problems, loss of relatives and friends, causing potential isolation. Therefore, the importance of support given to older persons (in this study through self-care support groups) will have a very important effect on the health of the older persons.
- Support increases physical and psychological wellbeing as well as health and acceptance of circumstances, enabling the older persons to have a positive outlook on life.

2.3.4.1.2 Psychological

- Psychological wellbeing of the older persons and social support for the older persons positively influence physical health; increasing quality of life.
- Ageing has a psychological effect on older persons, because older persons are subjected to retirement, decreased income, changes in social relationships, physical body and health changes as well as the death of loved ones.
- Acceptance is linked to psychological health, since acceptance leads to positive thought and allows a person to enjoy different experiences.

2.3.1.3 Spiritual

- There is a strong relationship between psychosocial and physical health and spiritual commitment in the older persons, because the older persons become more active in spiritual activities, as spiritual activities support coping.
- Spiritual growth influences the older persons' self-care agency (self-care capability and power), because older persons who are routinely involved in spiritual practices, have better initiative and responsibility to care for the self.

- Spiritual actions and attitudes are associated with social support (in this study self-care support groups). Spirituality increases psychological and physical health to an extent. Therefore, religion is a very important coping mechanism and prime motivational aspect in older persons' lives.

2.4 ECONOMIC FACTORS

In this study, the term economic factors consist of the older persons' income and health care costs.

2.4.1 Older persons' income

Geldenhuys (2007:54) avers that the Old-age pension system in South Africa is a well-evolved system providing a major group of older persons' pension benefits. Pension funds consist of three components, namely, contributory employment related pension funds, private savings and the State's social grant called Old-age pension. In order for the country's pension system to be effective, all three systems should be administered in an integrated manner. The pension system in South Africa is well developed for the South African population, but there is an extensive dependence on state old-age pension. In the studied older population, only 9.3% of men and 5.7% of women had some form of employment; 9.3% of men and 5.7% of women received money from their families, and the rest of the population depended on a small pension grant from Government each month as proven by Watson (2008:72).

Geldenhuys (2007:54-56) also added that this extensive dependence could have a disastrous impact in future. In South Africa, only persons that are employed by a company are allowed to contribute to an employment related pension fund making the majority of the older population dependent on a social grant each month called the Old-age pension.. The unemployment rate of South Africa increased from 4.2 million in 1995, to 7.7 million in 2001; this was an increase from 29% to 41% in six years' time, leaving a large number of older persons outside the pension contribution fund. For an older person to qualify for Old-age pension fund, women have to be 60 years and men 65 years of age. The same author mentions that Old-age pension fund is not sufficient for older persons to care for themselves, without another source of income. According to Ward-Griffen and Bramwell (1990:1070), the high cost of old-age homes and poor income of older persons, make older persons to prefer to stay in their own residences not out of choice but due to financial reasons. This is supported by Crawford Shearer (2009:4), who mentioned that many older persons are likely to stay by themselves in their residences whilst suffering from health problems and chronic diseases due to limited income. This fact is strengthen by Ward-Griffen and Bramwell (1990:1070) who mentioned that older persons are also caregivers of

younger children, making an average of three persons dependent on the old-age pension fund, which is R1,010 per month (National Department of Social Development, 2009:1).

Other factors influencing the old-age pension fund is corruption, incompetent staff at payout points, poor facilities, security and theft influencing the channels of pension money that are distributed to older persons. Peyper (2006:23), Shevel (2005:1), and Thom (2007:17) added that companies changed its employee benefits from a fixed benefit fund to a fixed contribution fund, meaning that when employees go on pension they lose their medical fund benefit, and only receive their personal contribution plus interest, whereas members on a fixed benefit fund enjoy lifelong pension from the company. This makes the older person less able to bear their health care costs when they are more likely to require medical care than younger adults. In 1995, 89% of pensioners enjoyed the benefit of companies giving health benefits; by 2003, only 43% of pensioners received this benefit, and in the same year, 19% of employees only received a lump sum of cash to look after their own post-retirement benefits, shifting the burden of health care costs totally on the older persons, thus onto the public health sector. Makhubu (2007:8) supports this statement by mentioning that disease prevention falls on PHC clinics that must provide accessible and integrated care to older persons. In 2005, the figures went from 85% to 95% of retired older persons that do not receive any medical fund contributions. The only manner how this problem can be addressed is by lowering the medical scheme cost, so that older persons could afford it, but at this stage, according to Fish and Ramjee (2007:39-40), medical costs are rising faster than living costs, making medical aid cover impossible for older persons.

Furthermore, the global financial crisis also had a major impact on South Africa's economy. Not only has inflation increased, but also unemployment. As a result, the financial burden on all citizens, especially the older population, has increased. Therefore Government has to supply medical care to all older persons who is not financially able to do so.

2.4.1.1 Conclusion statements regarding the older persons' income

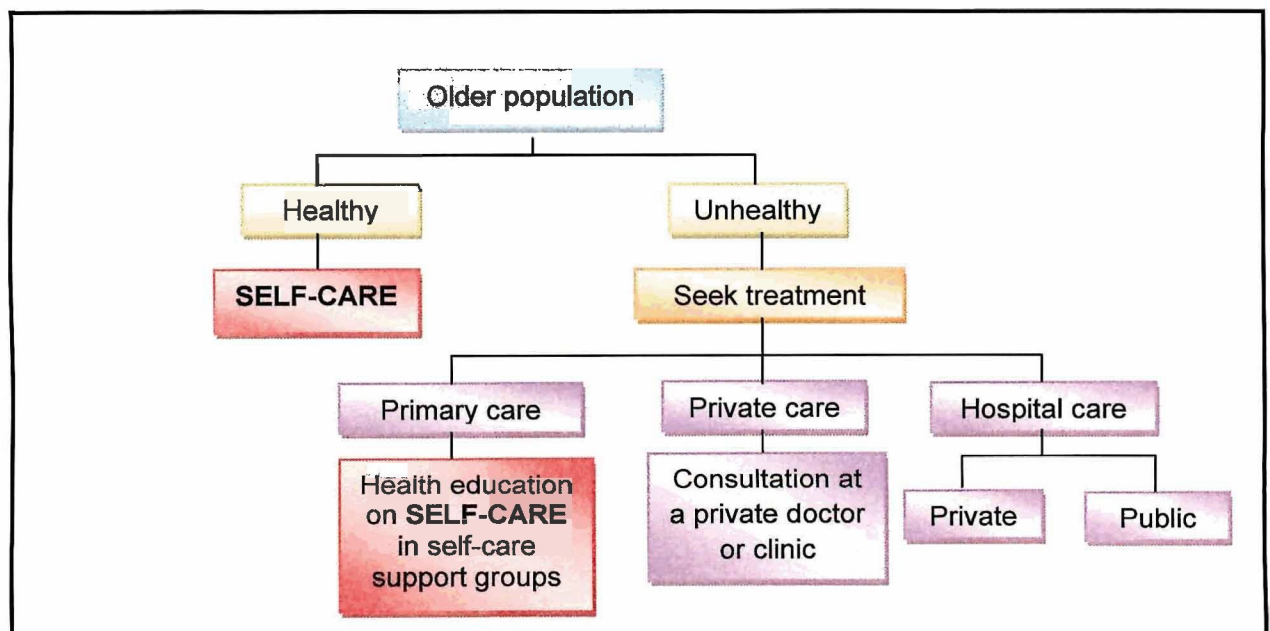
- The majority of older persons in South Africa are dependent on the social grant of R1,010 from the state, called old-age pension, which is not sufficient for the older persons to care for self. The large number of older persons depending on this social grant is due to high unemployment rates, illiteracy as well as poor employment opportunities of the older persons when they were young adults.

- High demand on older persons' income is due to poor income, high cost of old-age homes, and many older persons that act as caregivers for children, making an average of three persons' dependant on the old-age pension.
- The social health system, with reference to old-age pension, is influenced by corruption, incompetent staff at payout points, poor facilities, security and theft influencing the channels of pension money contributed to older persons.

2.4.2 Health care costs

According to Havemann and Van der Berg (2003:4-5), people (in this study older persons) could select care, from three options, namely PHC, private practitioners and hospitals (private or public). Health care in South Africa is characterised by two types of funding and provision environments, namely the private and public health sector. The private health sector is mostly funded by employed persons as well as those who are able to afford private fund and cover approximately 20% of the population, whereas the public health sector serves the rest in public hospitals and PHC clinics (Lorenson, Michael & Whiteside, 1999:16). Figure 2.4 indicates options for health care services in South Africa (changes made from the original model of Havemann and Van der Berg, 2003:5).

Figure 2.4: Health care services in South Africa



In the model of Havemann and Van der Berg, the authors use the term self-treatment, in this study referred to as self-care. The following diagrams 2.1 and 2.2 (below) were adapted and changed from Havemann and Van der Berg (2003:12-15).

Diagram 2.1 indicates different income groups' usage of hospitals, private or PHC, and self-care in South Africa. As discussed previously (see [2.4.1]), most older persons in the studied population only receive an old-age pension each month of R1,010. Diagram 2.1 (below) indicates that the South African population falling in R730 to R1,344 bracket (the same bracket as the studied population), 20% apply self-care, 15% attend at the PHC clinic, 46% at the private sector and 19% go to either public health sector or private hospitals. This clearly indicates the lower the income of a population, the higher the application of self-care and vice versa. This scenario could be due to the lower income population not having the financial means or circumstances to receive medical care.

Diagram 2.1: Self-care applied by different income groups

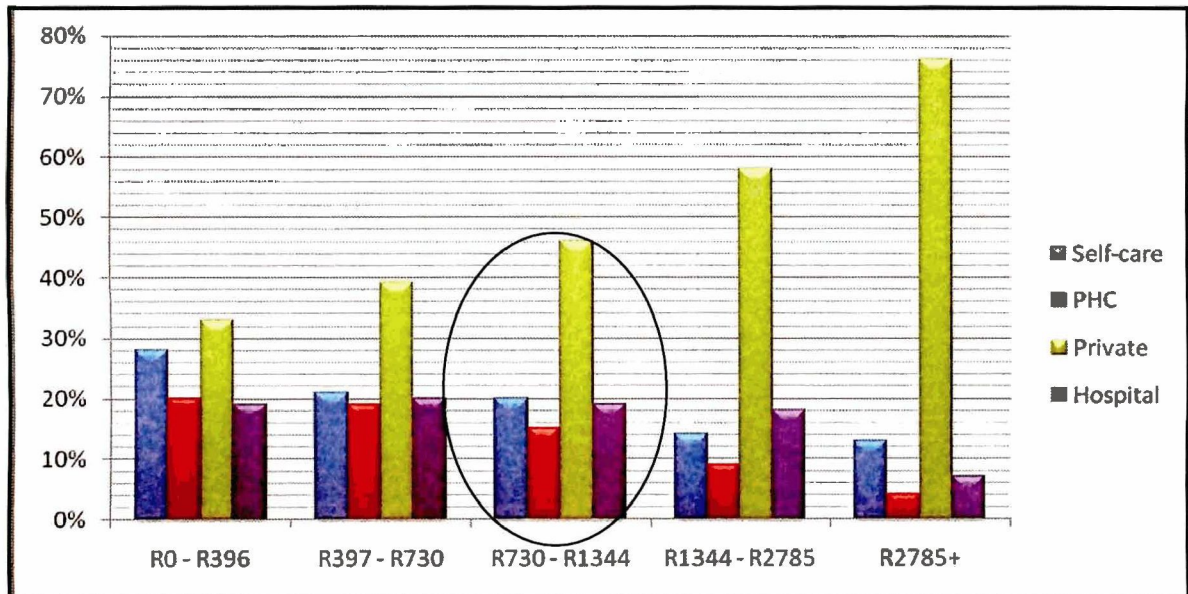
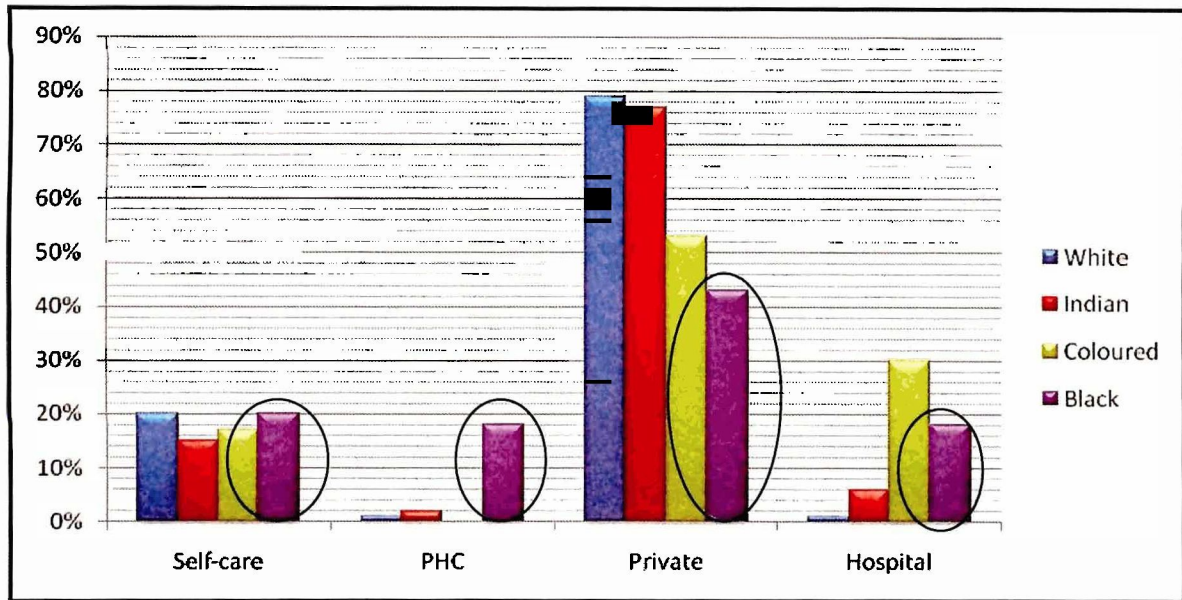


Diagram 2.2 (below) indicates how different ethnic groups care for self by applying self-care. The studied population lives in the peri-urban area of the Potchefstroom district and is of a black ethnic group. As seen below, in the overall black population (of which the studied population are a part) in South Africa, 20% apply self-care, 18% go to PHC, 43% attend the private sector, and 18% hospital, either private or public.

Diagram 2.2: Ethnic groups' self-care application



As depicted in the diagram 2.2, 18% of the black population apply self-care (the same ethnic group involved in the study). When considering, the current economic status of South Africa, both the older person and public health sector is affected. The public health sector is faced with increased number of persons not able to afford private health care as well as the large numbers of older persons in the country. This is supported by Anon. (2005:14) who mentioned the rapid increase of the older population greatly affects the health sector. This causes challenges not only from a funding perspective but also changes in health care needs. Older persons require more medications as well as hospitalisation, making them more expensive to care for. For these reasons, South Africa's health care system needs to change its services offered to the large number of older patients to decrease health care costs and ensure quality of life. This statement is supported by Roelands, Van Oost, Buysse and Depoorter (2002:1441), who mentioned that measures that support the autonomy of older persons to make self-care decisions are necessary to decrease the amount of professional help required.

According to Altun (2008:881), health care expenses could be decreased by increasing health and decreasing health risks. This could be achieved through the enhancement of self-care in the older persons. According to Health 24 (2008:3), individuals may pay R6,000 per capita per year on medical costs and that Government spends an average of R2,000 per capita per individual per year. When taking the older persons' income of ±R1,010 per month accumulating into R12 120 per year into consideration, it is almost financially impossible for the older persons to care for self when considering normal living costs. This supports the fact that the older persons are not able to pay for own private medical care. Therefore, the importance and value

of self-care is emphasised and cognisance should be taken to implement strategies to ensure quality of care.

2.4.2.1 Conclusion statements regarding health care costs

- Older persons have three options in health care, namely PHC, private practitioners and hospitals (private or public).
- South Africa has two types of funding and provision environments, namely the private sector that serves $\pm$ 20% of the population and the public sector serving 80% of the population.
- The lower a person's income the more likely self-care is applied; therefore, self-care should be especially implemented in lower income groups as a strategy to ensure quality of life.
- The health care system needs to change by supporting autonomy in older persons, which will result in a decrease in the professional help needed.

2.5 UNINTENTIONAL SELF-NEGLECT

According to MacDonald *et al.*, (2007:192), little is done at PHC clinics level to direct attention to communication and organisation of self-care and self-care competencies. For this reason, older persons have the potential to neglect themselves unintentionally, because there is no real support for self-care. The importance of self-care support is a very important part of help to older persons to apply self-care. Deyer *et al.*, (2007:172) mentioned that there are older persons that do not know their diagnosis and cannot even provide any history on their condition/s. This means that the older persons are not able to apply self-care because they are not informed about their condition/s.

Older persons, in particular, run a risk of unintentionally neglecting themselves not only due to the above-mentioned reasons but also because of the effect the ageing process has on them. This affects their physical abilities and increases the risk of developing chronic diseases. Lauder (2001:95-96) stated that self-neglect occurs when a person is unable to engage in self-care activities to promote health, and that professional nurses, are confronted with unintentional self-neglect on a continuous basis. The same author stated that professional nurses mentioned that they classify patients staying in their own residences in the community under the concept self-neglect when the patients are unable to employ self-care activities.

The studied older population stand a chance of unintentionally neglecting themselves as a result of the following factors:

- Many older persons stay alone, (or with small grandchildren or extended families), since they cannot afford to stay in old-age homes (Ward-Griffen & Bramwell, 1990:1070). This is also applicable to the older persons in this study. Watson (2008:72-74) found that the studied older population have a low socio-economic status since only 9.3% men and 5.7% women are self-employed while 5.45% receive an income from their families. The rest of the population receive a monthly social grant from the Government.
- Older persons are not on the South African health care priority list (Ntusi & Ferreira, 2004:3).
- Patients do not have a general knowledge about their health conditions and how to take care of it (Deyer *et al.*, 2007:1672).
- The majority of older persons in the studied population have none or only primary educational levels, disabling them to search, find and read information about self-care (see [2.3.1], table [2.2]).

These factors led to the investigation of the self-care of the older population in the Potchefstroom district in order to recommend guidelines for the enhancement of self-care amongst them. Such guidelines, facilitated in self-care support groups, will decrease unintentional self-neglect and increase autonomy and quality of life. According to NOTE (2000:128) the opposite for neglect is care and applied in this study, the opposite of self-neglect would mean self-care.

2.5.1 Conclusion statements regarding unintentional self-neglect

- Although professional nurses are confronted by unintentional self-neglect of older persons on a continuous basis, little is done at PHC level to communicate and organise application of self-care.
- Older persons do not have knowledge about their conditions to make self-care decisions. They only have a primary level of education, which disables them to search, find and read information about self-care. This in turn might lead to unintentional self-neglect.
- Older persons cannot afford to stay in old age homes, due to their low socio-economic status.

2.6 HEALTH PROMOTION

According to Coulson, Goldstein and Ntuli (1999:175), Trasher (2002:113-114), and Birse and Rootman (1999:1), the concept health promotion is defined as a course of actions undertaken to enable individuals to promote health on a body, mind and spiritual level. Keller (2009:1) states that, due to the rapid increase of older persons, the need for health promotion efforts to take effect is of cardinal importance. At this stage, there is a shortage of research findings focussing on interventions to increase quality nursing care for older person at clinic level.

According to Whitehead (2009:866-870) health education is the "springboard" of health promotion in nursing since it influences the health state of older persons. According to Altun (2008:881), self-care education is seen as one of the most effective ways to promote health. Whitehead (2009:866-871) explains that health promotion is seen as a concept in practice, whereas health education is seen as a strategy to help promote health in lower-income community levels. According to Whitehead (2009:866-871), health education does not take place due to various reasons that include, time shortages, lack of resources, support, and overcrowded clinics. It is therefore important for the public health sector to support the professional nurse and older person to engage in health education sessions. Without support, the newly acquired self-care skills will not be sustained. Since professional nurses are globally criticised for not initiating, developing and keeping up with the latest health promotion techniques, they should actively address these issues in order to promote health promotion via health education.

Whitehead (2009:866-871) also adds that health promotion through health education forms the basis for community development and PHC. According to Whitehead (2009:866-871), Räsänen, Backman and Kygäs (2007:397), and Altun (2008:881-882), health promotion and health education goes hand in hand since they complement each other. However, in order to facilitate health promotion through health education there are a few principles the professional nurse has to adhere to, to enhance learning. According to Suter and Suter (2008:83-87) learning only takes place when the professional nurse uses reinforcement, provides feedback, integrates and connects information and provides instructions that fit the target population's learning abilities. Kendall and Rogers (2007:130) add to this statement by mentioning that Government should sponsor professional nurses who are teaching self-care behaviours to patients as part of health promotion. These professional nurses have the potential to influence self-care behaviours since they are working in positions that can promote health in millions of people (Whitehead, 2009:868).

Health promotion is a focus area in nursing practice. Pender's revised health promotion model in nursing practice can therefore be used as basis to describe health promotion in this study (Tomey & Alligood, 2006:458).

This model consists of different individual characteristics and experiences that affect health actions.

Prior related behaviour (*in this study behaviour of older persons before self-care guidelines are implemented*) **consist of:**

- **Perceived benefits of action** (*in this study older persons' perceived positive benefits of actions after implementation of self-care guidelines*).
- **Perceived barriers to action** (*in this study cost of health care, older persons' income, no support from public health sector, lack of self-care knowledge*).
- **Perceived self-efficacy** (*in this study personal capability and power [self-care agency] of older persons to execute health-promoting behaviour*).
- **Activity-related effect** (*In this study positive / negative feelings occur after implementation of self-care guidelines (health promoting behaviour)*).

Personal factors (*in this study body, mind, and spiritual influences on the older person*) **consist of:**

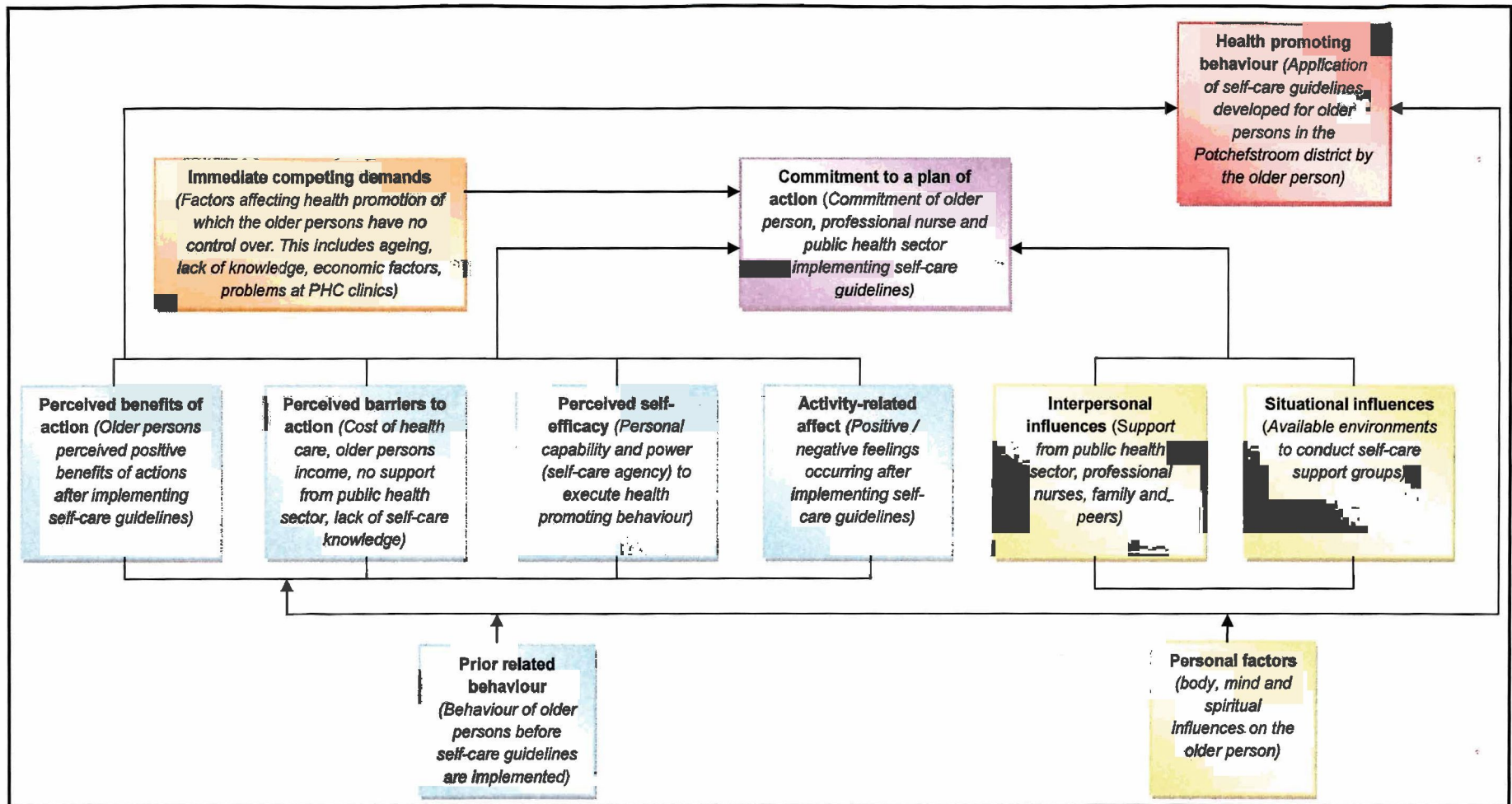
- **Interpersonal influences** (*in this study support from public health sector, professional nurses, family and peers*)
- **Situational influences** (*in this study environments available to conduct self-care support groups*)

Prior related behaviour, personal factors and its associated criteria (perceived benefits to action, perceived barriers to action, perceived self-efficacy, activity-related effect, interpersonal influences and situational influences) lead to the **Commitment to a plan of action** (*in this study commitment of older persons, professional nurses and public health sector to implement self-care guidelines*). This commitment to a plan of action is influenced by **Immediate competing demands** (*in this study factors affecting health promotion of which the older persons do not have control over. This includes ageing, economic factors, lack of self-care knowledge and problems at PHC clinics*). After addressing these factors and implementation of the developed

self-care guidelines by older persons, professional nurse and the public health sector **Health promoting behaviour** will be reached.

Figure 2.5 indicates how different characteristics and experiences affect subsequent health actions. This model was adapted from Pender's revised health promotion model in nursing practice (Tomey & Alligood, 2006:458). The empowerment of older persons through health promotion is imperative since they are one of the primary users of the health care system (in this study public health sector) (Callaghan, 2006:44).

Figure 2.5: Health promotion model in nursing practice



(Tomey & Alligood, 2006:458)

For effective health promotion to take place, older persons should support professional nurses to identify possible self-care deficits in the community that needs to be addressed. Professional nurses are understaffed and often work in overcrowded clinics; which keep them from identifying self-care deficits. Health promotion comprises of the “bottom-up” and “top-down” approaches. The older person could support the professional nurse by using the “bottom-up” approach. The “bottom-up” approach focuses on the older person communicating self-care deficits to professional nurses. While the professional nurse empowers the older person by addressing the identified self-care deficits in self-care support groups.

This study advocates the “bottom-up” approach, since older persons are encouraged to identify self-care topics that can be addressed by the professional nurse in the self-care support.

The table of Laverack and Labonte (2000:256), as adapted for this study, indicates the difference between the top-down and bottom-up approach.

Table 2.5: Top-down and bottom-up approach

	Top-down	Bottom-up
Metaphor	Individual responsibility	Empowerment (<i>Through self-care support groups</i>)
Approaches	Weakness / deficit / solve problem	Strength / capacity / Improve competence (<i>Improvement of self-care</i>).
Definition of problem	By government body	By community (<i>data obtained from the older persons, communicated to professional nurses</i>).
Primary vehicles for health promotion and change	Education, improve services, lifestyles	Building community control, resources and capacities toward social change (<i>Professional nurses help older person to take control/change lifestyle by improving health through self-care learned in self-care support groups</i>).

Role of outside agents	Service delivery and resource allocation	Respond to needs of community (<i>The researcher indirectly respond to the needs of the older persons by developing to facilitate self-care amongst older persons after identifying self-care deficits after data collection and analysis</i>).
Primary decision makers	Business leaders, agency representatives	Local leaders (<i>Professional nurses with the help of older persons in the community</i>)
Community control of resources	Low	High
Community ownership	Low	High
Evaluation	Quantifiable outcomes and targets	Documenting changes of importance to community (<i>Professional nurses documenting changes in self-care of older person after promoting health through health education in self-care support groups after implementing self-care guidelines developed by the researcher</i>)

The aim of this study is to promote the health of the older person by firstly assessing self-care and secondly to develop guidelines for its facilitation. These above-mentioned guidelines promote health by empowering the older person to make autonomous decisions regarding self-care.

2.6.1 Conclusion statements regarding health promotion

- Health promotion is defined as a course of actions undertaken to enable individuals to promote health on a body, mind and spiritual level.
- Health promotion is seen as a concept in practice and health education as the strategy and basis for health promotion in lower socio-economic communities.

- Health education does not take place due to, limited education, time restrictions, limited resources and overcrowded clinics.
- Professional nurses are in the best position to empower and promote health, since they are in the position to teach self-care to older persons. Professional nurses should encourage the older person to use the "bottom-up" approach.

2.7 EMPOWERMENT

The term empowerment originates from the concept power. Power influences the individuals (in this the study older persons) to reach desirable outcomes in their personal environment. However if an individual is powerless he is unable to change his personal environment. Empowerment not only provides a person the power to control, but also the self-confidence to control. When a person is empowered to remove the situation that leads to powerlessness, self-confidence is enhanced. According to Chambers and Thompson (2008:130), the primary focus of the Ottawa Charter on Health Promotion is to empower while the main facilitators of health empowerment are professional nurses. Professional nurses play the main roles at PHC level to empower older persons to reclaim control over their lives. Empowerment enables the individual to maintain health and manage interactions with health care systems (Hage & Lorensen 2005:237; Birse & Rootman, 1999:i). Hage and Lorensen (2005:237) and Birse and Rootman (1999:i) continued in saying that the empowerment of older persons could be achieved by providing them with information and skills; this will enable them to manage and promote health by making autonomous decisions. In this study, the professional nurse empowers the older person by giving self-care health education in self-care support groups, since health education can change behaviour to promote health where there is a decline (Hage & Lorensen, 2005:235-238)

From the above it is clear that older persons are empowered via health education provided by professional nurses. According to Whitehead (2009:870), health education empowers and broadens the older persons' knowledge by assisting them to clarify personal values and to rationalise choices contributing to autonomy. This statement is supported by Crawford Shearer (2009:4), who mentions that empowerment enables a person to participate knowingly in decisions regarding self-care; in other words, a person is empowered to make autonomous decisions.

In this study, Menon's psychological health empowerment model is employed as basis to describe empowerment.

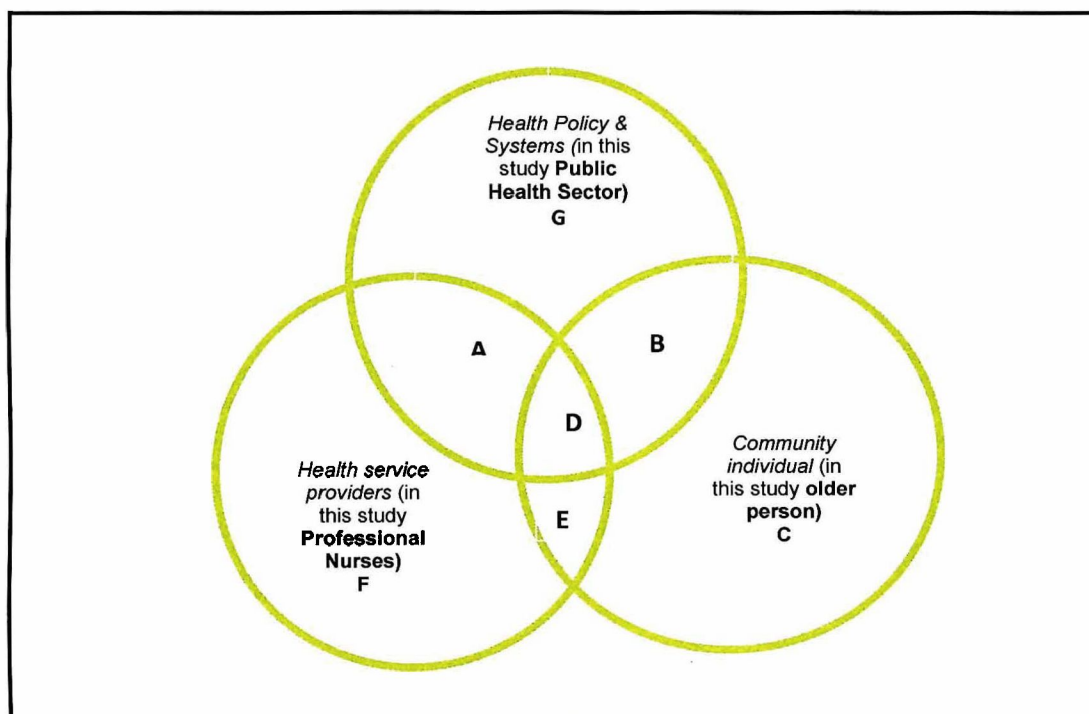
Three elements of Menon's psychological health empowerment model

Menon (2002:28) states that health empowerment is conceptualised as an interactive system of three elements, namely:

1. Regulatory environment consisting of health policy and systems (*in this study the public health sector supplying health care to older persons at PHC level*);
2. Health service providers (*in this study the professional nurses*); and
3. Individual community members (*in this study the older person*).

The following health empowerment model, adapted from the model of Menon (2002:31), is a schematic indication of how the researcher sees health empowerment.

Figure 2.6: Psychological health empowerment model



(Adapted from Menon, 2002:31)

Three elements of the interactive system

The interactive system consists of three elements namely, public health sector, professional nurse and older person.

- **Public health sector** (*Health policy and systems supplying health care to persons at PHC level*)

The public health sector element includes regulatory policies and laws regarding health, finances and policy making bodies and lastly, health insurance systems. The Government is obliged to provide health services to the public. The public health sector influences the professional nurse and older persons directly or indirectly with issues not of immediate concern to the professional nurse or older person (area G of figure 2.6).

The public health sector influences both the professional nurses and older persons (see area D in figure 2.6). In area A of figure 2.6, the public health sector influences control of the professional nurses and in area B of figure 2.6, the older persons are influenced by the public health sector; by for example, advocating not to use / abuse alcohol or tobacco, but the decision still lies with the older person.

- **Professional nurses** (*Health service providers*)

Professional nurses are not only affected by various issues regarding reduced staff, overcrowding of clinics and high work demands (area F of Figure 2.6) but also affects the older persons that depend and entrust their wellbeing and recovery on the expert in health care (area E of figure 2.6). According to Menon (2002:30), the professional nurse encourages the wellbeing of the older person by determining and recommending actions that the older person should take to perceive power and control. The author also mentions that the professional nurse then expects of the older persons to adhere to the recommended actions as closely as possible to increase health.

- **Older persons** (*Community individual*)

Older persons are the self-care agents that care for own health, but this could be affected by each older person's individual situation; for example, schooling, life experiences and background that influences life and behaviour (area C in figure 2.6). Area E of figure 2.6 indicates that various issues influence the older person. These issues include health insurance, health education and availability of medical care and professional nurses interacting with them through health education sessions in self-care support groups. According to Menon (2002:30-31), health care of the older persons is dependent on the professional nurse. Therefore the older person is empowered in areas B, D and E, when optimal health is achieved.

2.7.1 Conclusion statements regarding empowerment

- Health is promoted through empowerment, as it provides the older persons self-confidence and power to control their health.
- Empowerment is achieved when professional nurses provides information and skills, to older persons enabling them to make autonomous decisions.
- Health education is a form of empowerment and contributes to autonomy, as a person is able to participate knowingly in decisions regarding self-care.
- Menon's model of psychological health empowerment (as adapted for this study) has three interactive elements namely, the public health sector, professional nurses and older persons.

2.8 AUTONOMY

The term autonomy is derived from the Greek word "*auto-nomas*", which means independence (Myrra *et al.*, 2005:264). Autonomy means that an individual is independent in making decisions regarding goals, desires, preferences and choices in self-care (Trasher, 2002:115; Bastiaens *et al.*, 2007:40). According to Myrra *et al.*, (2005:264-269), when there is a limitation in activities and a lack of knowledge the independence of a person is compromised and autonomy decreased. When there are limitations in activities and a lack of knowledge compromising independence, strategies focussing on these needs should be implemented by professional nurses to reinstate independence. These needs could be addressed by implementation of certain strategies, such as health education provided in self-care support groups. Health education empowers the older person to make self-care decisions, therefore increasing autonomy. The professional nurse could address limitations in activities and the lack of knowledge in health education session. During these sessions the older person can be assisted to focus on what he is still able to do, rather than, what he is not able to do. Health education empowers the older person to make self-care decisions, thereby increasing independence and autonomy.

According to Allen-Leigh *et al.*, (2008:215), autonomy could be seen in different spheres, namely personal, social, sexual and economic. This study focuses on the personal, social and economic spheres of autonomy.

- **Personal autonomy**

Personal autonomy means that the older person has the ability to control and care for himself in daily life activities. These activities include personal and environmental hygiene, dressing and nutrition. These activities relate with the Dorothea Orem's self-care deficit theory of nursing's; universal self-care (see [2.2.6], figure [2.3]). The above-mentioned statements support Wetzels *et al.*, (2007:1) who mentioned that if the older person are able to control and care for self in daily activities, treatment decisions, health outcomes on their physiological and functional status will improve (Wetzels *et al.*, 2007:1).

- **Social autonomy**

Social autonomy refers to the ability of the older person to decide whom to interact with socially. In this study social autonomy is related to self-care support groups. Self-care support groups provide the older person with health and social support from peers. The aim of these groups is to help the older persons and peers to learn, discuss and sustain the acquired self-care skills (Allen-Leigh *et al.*, 2008:215).

- **Economic autonomy**

Economic autonomy means that the older person is able to care for himself by deciding where to his money. If the older person's self-care is improved, with regard to economic autonomy, both the public health sector and older person will incur less health care costs. (Allen-Leigh *et al.*, 2008:215).

According to Hage and Lorensen (2005:237), the 'Declaration of Alma-Ata' states that patients (in this study the older person) have a right to information that will enable them to make autonomous decisions regarding health and treatment. According to HelpAge International (2007:4), many older persons have a lack of knowledge about their rights and entitlements with regard to health care. Ebin and Newman (2008:42) add to this by mentioning that individuals (in this study the older persons) should become more aware of their rights to participate in health and self-care decision-making. According to Myrra *et al.*, (2005:265) autonomy is very important part of life. This study aims at increasing the autonomy of the older person by developing

guidelines for its development in the older person. When the older person acquires this skill, it will lead to an improved quality of life.

2.8.1 Conclusion statements regarding autonomy

- Autonomy means independence in decision-making regarding self-care and independence is compromised when there are limitations in autonomy.
- When there is a limitation in autonomy due to a lack of knowledge, the professional nurse should increase autonomy through health education in self-care support groups.
- The older persons have a right to information, in order to make autonomous decisions regarding self-care, health and treatment. Many older persons have limited knowledge about their rights and entitlements regarding health care and should therefore become more aware of their rights to participate autonomously in health and self-care decision-making.

2.9 QUALITY OF LIFE

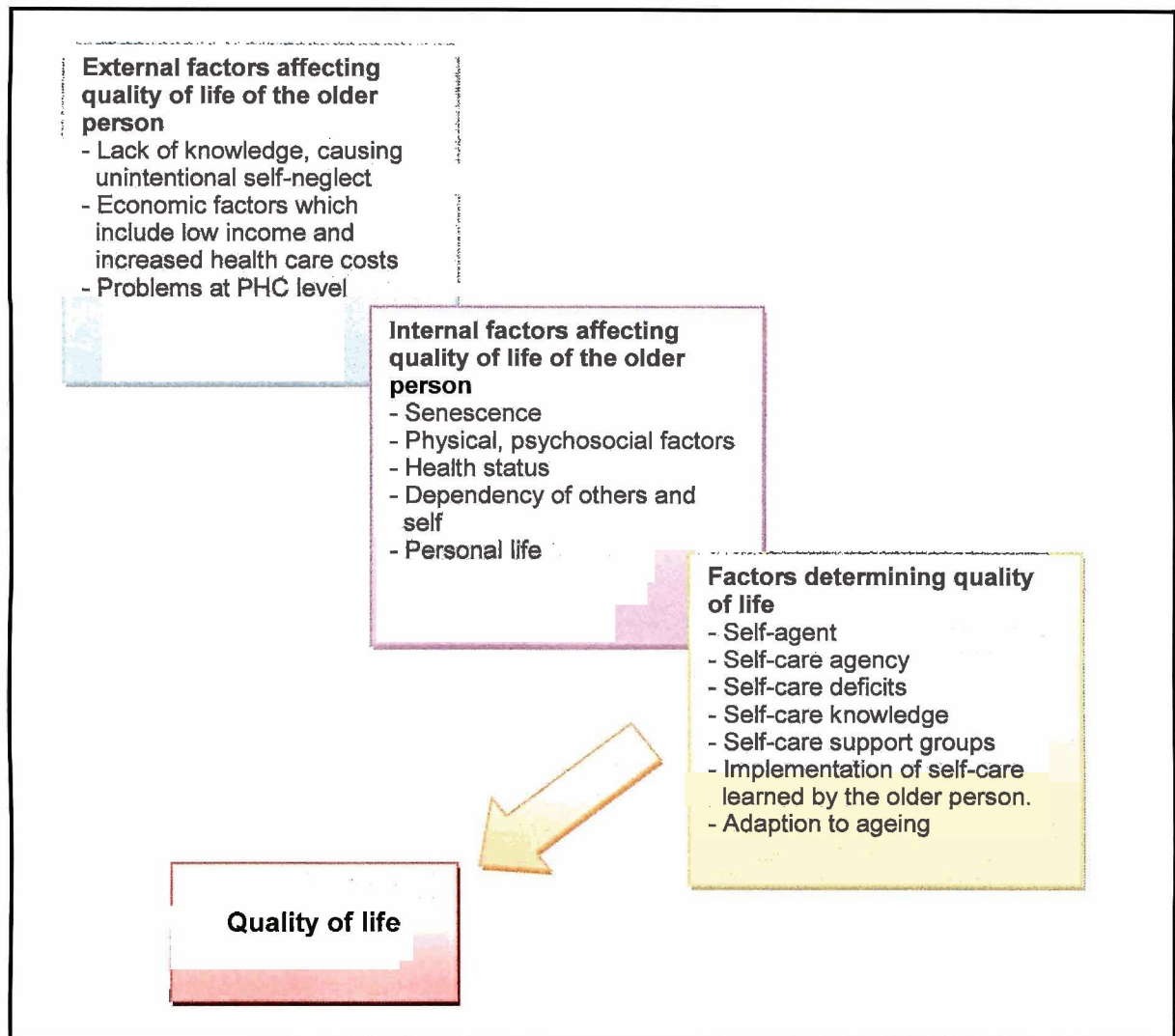
According to Kirchengast and Haslinger (2008:271), and Butler and Ciarrochi (2007:607), quality of life is defined by the World Health Organisation (WHO) as “the individual’s perception of his or her position in life, within the cultural context and value system he or she lives in and in relation to his or her goals, expectations, parameters and social relations”. According to Meléndez, Tomás, Oliver and Navarro (2009:291), quality of life and successful ageing depend on sufficient optimisation of the different dimensions. These dimensions include body, mind and spirit. Therefore, quality of life in older persons is not only related to the presence or absence of disease (Lawler-Röw & Elliott, 2009:44). The focus of quality of life stretches further than only the physical, since Haveman-Nies, de Groot and van Straveren (2003:318) mentioned that the ultimate goal of nursing is physical care and enhancement of quality of life of a person (in this study the older person), by engaging in common goals formed between professional nurses and older persons.

The main focus of nursing is the care of the holistic person and not only the environment and selected parts. One of the current challenges is to determine the best way to increase quality of life in older persons (Haveman-Nies *et al.*, 2003:318). In this regard Altun (2008:881), mentions that quality of life and life expectancy of the older persons can be increased by improving health and decreasing health risks. Since PHC plays an important role in the improvement of quality of life of older persons in South Africa, it can be used to empower the older person through health

education (Hage & Lorensen, 2005:235-238; Ebin & Newman, 2008:42). According to Butler and Ciarrochi (2007:608), adjustment and acceptance of ageing are important aspects of quality of life. Older persons who accepted ageing and factors related to ageing are more willing to accept unpleasant changes and thoughts related to ageing, and are more relaxed to engage in adjusting activities. Research also suggested that older persons having increased quality of life know their conditions. Consequently, the study aims to enhance self-care of the older person by recommending guidelines to facilitate self-care to make the older persons more independent in self-care. Self-care independence enhances quality of life.

The following model was adapted from Cooney, Murphy and O'Shea's (2008:1032), this model address the determinants (internal and external) affecting quality of life for older persons in residential settings. If the factors determining quality of life is attended to, quality of life is achieved. Figure 2.7 indicates the determinants of quality of life as adapted for the older persons in the Potchefstroom district.

Figure 2.7: Determinants of quality of life of the older persons in the Potchefstroom district



(Adapted from Cooney *et al.*, 2008:1032)

The model's determinants of quality of life in the studied population were adapted and applied as follow:

External factors: Lack of knowledge causing unintentional self-neglect; economic factors that includes low income and increased health care costs and problems at PHC level.

Internal factors: Senescence; adaptation to ageing; physical and psychosocial factors; health status; dependency of others and self, and personal life.

Factors determining quality of life: Self-care knowledge; self-care agent; self-care agency; self-care deficits; self-care support groups; implementation of learned self-care by the older persons, and adaptation to ageing.

When the older person addresses the external and internal factors as well as the factors determining quality of life, quality of life will result.

2.9.1 Conclusion statements regarding quality of life

- Quality of life is an indefinable, personal perception of a person's lived experience as well as its quality.
- The ultimate goal of nursing is to enhance quality of life in a holistic way.
- Quality of life as well as life expectancy is enhanced through the improvement of/and promotion of health.

2.10 CHAPTER SUMMARY

In this chapter, a literature review was conducted to understand self-care and related constructs from a theoretical perspective. The older population of this study resided in the peri-urban area of the Potchefstroom district and had a low socio-economic status. These older persons only receive a small amount of R1,010 each month from Government called an old-age pension. These older persons receive a small pension each month and are also affected by the current global recession. The recession affects younger adults as well as older persons in South Africa. Due to the above-mentioned factors, millions of people in South Africa depend on the Government's public health care sector for health care. This places an additional burden on the professional nurses who are already understaffed and overloaded.

Health care workers (including professional nurses) are therefore, impatient and intolerant, to conduct poor physical examinations and pay little attention to patients resulting in the older person not being comfortable to speak freely about self-care and health. This situation causes the older persons to have a lack of knowledge regarding their conditions, which could develop in possible unintentional self-neglect. Due to unintentional self-neglect the older person stands a chance of developing a self-care deficit, which necessitates the professional nurse to implement nursing interventions to alleviate these self-care deficiencies. When these interventions are made, support should be provided to older persons to ensure that they comply. It is here that

the establishment of self-care support groups facilitated by professional nurses are so vital. In these self-care support groups, health education on self-care will increase the older person's knowledge on self-care and develop a preventative measure to the self-care deficit. Self-care support groups provide the older persons with the necessary support to implement and acquire self-care skills and decrease isolation by providing them the opportunity to socialise with other people. Health education will increase the quality of life, since it empowers the older person to make autonomous decisions regarding self-care, to be in control of their own lives.

Based on the above, Orem's self-care deficit theory of nursing was selected to investigate the self-care of older persons living in the peri-urban district of Potchefstroom. This information assisted in the development of guidelines for the enhancement of self-care specifically aimed at the studied population.

An in-depth discussion of the research methodology follows in Chapter 3.

CHAPTER 3

RESEARCH DESIGN AND -METHOD

(Phase 1: Step 2, 3 and 4)

3.1 INTRODUCTION

In chapter 2 a literature review was done in order to understand self-care and related constructs from a theoretical perspective. In this chapter, detailed attention is given to the research design and -method, and ethical aspects of the study. Table 3.1 indicates the structure of the research project indicating the method of Step 2, 3 and 4.

Table 3.1: Structure of research project indicating the method for Step 2, 3 and 4

Phase 1: Compilation of evidence regarding self-care of the older persons in the Potchefstroom district for the development of guidelines to facilitate self-care to older persons in the Potchefstroom district	
Objectives	
Objective 1: Conduct a literature review to understand self-care and related constructs from a theoretical perspective	Step 1: Explore and describe the literature to understand self-care and related constructs
Objective 2: Assess the self-care of older persons living in the Potchefstroom district	Step 2: Explore and describe the self-care agency of the older persons in the Potchefstroom district
Objective 3: Correlate the ASA-A and the ESCA	Step 3: Determine the relationship between the ASA-A and ESCA
Phase 2: Development of guidelines	
Overarching aim	
Aim: Develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district	Step 4: Formulation of self-care guidelines

3.2 RESEARCH DESIGN

A **quantitative, descriptive, correlational and contextual** research design was employed to achieve the main aim of the study. According to Burns and Grove (2005:219), the elements of a good research design include suitability for the purpose of the study, feasibility and the elimination of threats to threats.

The general self-care of the older persons in the Potchefstroom district was disconcerting, and therefore selected questionnaires that were specifically developed to measure the self-care (self-care is measured through measuring the self-care agency) of a person (in this study the older person) were selected as instruments for this study. Both these questionnaires are based on Orem's self-care deficit theory of nursing, the same theory used as basis for the study (Kearny & Fleischer, 1979:25-34; Evers *et al.*, 1993:332). There are various reasons why questionnaires are used. According to Burns and Grove (2005:233), one reason is to investigate an area of concern and another reason, according to Babbie (2010:256), is to seek specific information appropriate for analysis as well as investigate a specific area of concern, which in this study is self-care of older persons in the Potchefstroom district.

3.2.1 Quantitative research design

The design of a research study determines the methodology used to obtain information for the study, which includes the participants, data collection, data analysis and interpretation of results (Brink *et al.*, 2006:92). In this study, a quantitative approach was followed. Two questionnaires, namely the ASA-A and ESCA, were used to determine self-care of the older persons in the Potchefstroom district.

3.2.2 Descriptive research design

According to Burns and Grove (2005:232), and Brink *et al.*, (2006:10), a **descriptive design** consists of a typical descriptive design, comparative descriptive design, time-dimensional and case study design. A descriptive design is used to provide an accurate portrayal of qualities or characteristics of a studied population.

In order to reach objective 2 of this study, a **typical descriptive** research design was followed, which aimed at describing self-care of the older population in the Potchefstroom district.

Typical descriptive studies are conducted to describe a phenomenon of which little information is available. In typical descriptive studies there is no manipulation of variables or determination of comparisons between variables, the researcher only searches for specific information in a single sample as well as define the different variables of interest to obtain and give a complete picture of the studied phenomenon (in this study self-care of the older persons in the peri-urban area of the Potchefstroom district). This description leads to the determination of the theoretical significance of findings (Brink *et al.*, 2006:104; Burns & Grove, 2005:232-233).

After data was collected by using the ASA-A and ESCA, the results were interpreted. This enabled the researcher to identify self-care deficits in the older peri-urban population of the Potchefstroom district. These identified self-care deficits based on Dorothea Orem's self-care deficit theory of nursing and Menon's psychological health empowerment model led to the development of guidelines to facilitate self-care amongst older persons. The development of these guidelines (see chapter 5 [5.2]) made it possible to reach the overarching aim of this study.

3.2.3 Correlational research design

Correlational designs consist of descriptive, predictive and model testing designs (Brink *et al.*, 2006:10; Burns & Grove, 2005:239-241). In this study a **descriptive correlational design** was used to reach objective 3.

The main intention of a **descriptive correlational design** is to describe the relationship between variables. No manipulation of variables is done, only the different variables of interest are defined as with descriptive designs. When a correlation exists, the change in one variable corresponds with a change in the other.

Inferential statistics aided in reaching objective 3 of this study. Firstly, factor analysis was done, thereafter mean analysis of the factors and lastly, correlational analysis of the factors to determine the correlation between the ASA-A and ESCA. There was a strong negative correlation of ($r = -.791$) between the ASA-A and the ESCA (see chapter 4 [4.2.2]) after correlational analysis.

3.2.4 Contextual research design

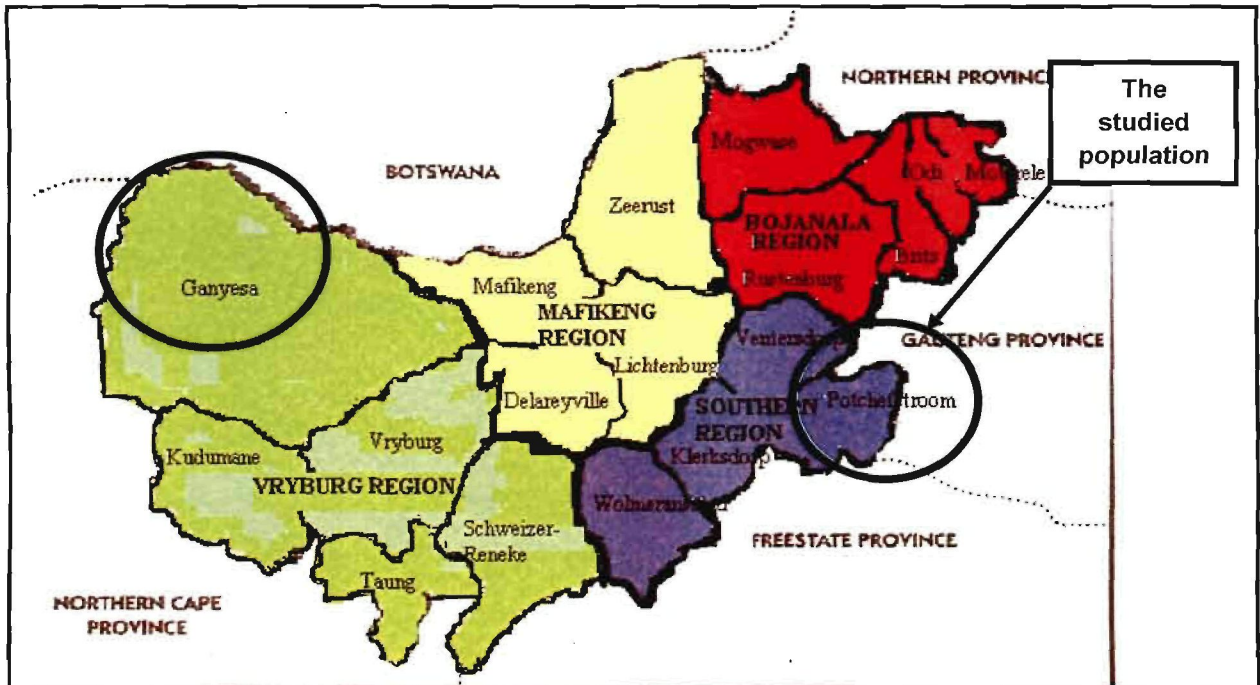
This research study was **contextual** and conducted in the peri-urban district of Potchefstroom, North West Province, South Africa. The study formed part of the PURE-SA study, because the older population staying in the Potchefstroom district identified by the PURE-SA study and previous data obtained about the health profile of this population was used. To have a better understanding of the larger PURE-SA study of which this study formed a part, a condensed background follows.

The PURE-SA study's main focus is to examine health changes on non-communicable diseases over a period of 12 years within the Ganyesa and Potchefstroom districts. The Ganyesa population is referred to as the rural population and Potchefstroom as the urban population.

For this study, only the population in the Potchefstroom district referred to as the urban population in the PURE-SA study was used. This population is referred to as the peri-urban population since they live in the semi-rural part of the Potchefstroom district called Ikageng.

Figure 3.1 indicates where the population of both the Potchefstroom –and Ganyesa districts, which form part of the PURE-SA study, are situated.

Figure 3.1: Potchefstroom -and Ganyesa districts that form part of the PURE-SA study



The baseline data of the PURE-SA study were collected from August to November 2005. There were 2,021 participants randomly selected to participate in the study. All the participants were

older than 35 years and volunteered to participate in the study. All participants had an equal chance to participate in the study, making it possible to generalise the findings to the larger population. Criteria for inclusion was based on participants that did not use medicine, suffer from any chronic diseases, tuberculosis or HIV/AIDS, expected a baby or misused alcohol. There were sixteen fieldworkers trained to do fieldwork in the communities, eight for the urban population in the Potchefstroom district and eight for the rural population in the Ganyesa district. The surveys were done to determine the health profile (see chapter 2, table [2.2]), the number of members in each home as well as each member's age in the 6,000 households; 3,000 houses in the urban (in this study the peri-urban) population of the Potchefstroom district, and 3,000 houses in the rural population of the Ganyesa district.

The leader of each family signed a voluntary consent form that enabled the fieldworkers to do the survey. If the family decided not to take part in the study, or there was no-one home on the day of the survey, the fieldworkers filled out a non-complier questionnaire and moved to the next residence. Three thousand participants were selected (1,500 in the Potchefstroom and 1,500 in the Ganyesa districts) that met the set criteria to participate in the PURE-SA study. After the trained fieldworker informed the participant of the purpose of the study and the participant gave voluntary consent, a broad adult questionnaire that focused on the bio-physical, psychological wellbeing, socio-economic factors, lifestyle behaviours and support systems was completed. The identified 3,000 participants were then invited to a research location, to do necessary tests. Only 1,006 of the urban population (in this study peri-urban population) in the Potchefstroom district and 1,015 of the rural population in the Ganyesa district underwent the necessary tests. These tests included blood sampling, urine testing, hair sampling, electrocardiograph (ECG), blood pressure and blood glucose. After the participants were scrutinised, a sub-population of 333 men and women over the age of 60 years were identified in both the urban population (in this study peri-urban population) of the Potchefstroom district and the rural population of the Ganyesa district (Watson, 2008:52-54). For this research study, the peri-urban population consisted of 198 older persons in the Potchefstroom district (see chapter 3 [3.3.1.2], figure [3.2]).

3.3 RESEARCH METHODOLOGY

A description of the research methodology will follow in the subsequent paragraphs with attention given to the sampling (consisting of the population, sampling method and sample size), data collection, pilot study and data analysis, validity and reliability (Klopper, 2008:69).

3.3.1 Sampling

Sampling consists of the population, sampling method and sample size.

3.3.1.1 Phase 1, step 1

- **Population**

A literature review was done to understand self-care and related constructs from a theoretical perspective. During this literature review 117 sources were consulted.

- **Sampling method**

Purposive sampling was used during the literature review in order to reach objective 1 of this study. Purposive sampling is described by Burns and Grove (2005:352) as the conscious selection of certain subjects and elements to include in the study, to obtain rich information about a certain central focus. In this study, the key words used during the literature review were self-care consisting of self-care agency, self-care agent, self-care deficit; self-care support groups; older person (geriatric, elderly, ageing), economic factors (older persons' income, health care, health care costs); Orem's-self-care deficit theory of nursing; unintentional self-neglect; health promotion; empowerment and quality of life. These keywords were used because they form part of the main concepts used in this research study. The literature search was done by making use of the following search engines: Medline (1990-2009), PsychINFO (1990-2009), Science Direct (1990-2009), Google, Google Scholar and the CINAHL Database (1990-2009).

- **Sample size**

The researcher used $n = 117$ sources of information during the literature review.

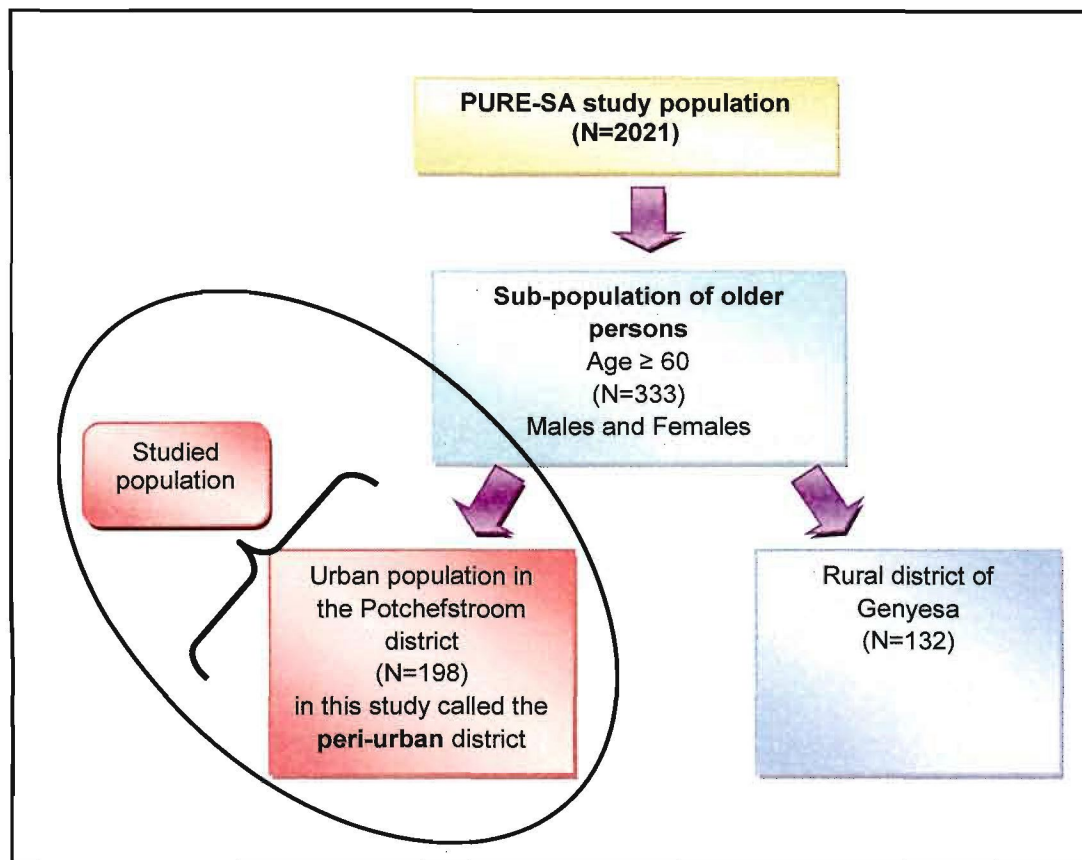
3.3.1.2 Phase 1, step 2 and 3

- **Population**

The older persons in the peri-urban district of Potchefstroom, North West Province of South Africa that voluntarily participated in the PURE-SA study were included in the study. Figure 3.1 (below) schematically indicates the sampling process used to obtain the peri-urban older

population of the Potchefstroom district, which is the sub-population formed from the larger population of the PURE-SA study. The population identified consisted of $n = 198$ older persons aged 60+ that lived in their own private residences (Watson, 2008:53). From the 198 questionnaires disseminated to the population for completion, 192 were received back; resulting in a 98% response rate.

Figure 3.2: PURE-SA peri-urban population used in this study



- **Sampling method**

Sampling is explained as the method to select persons with certain criteria to represent the population studied. Sampling plays an important role in the implication and generalisation of findings (Burns & Grove, 2005:341). The all-inclusive sampling method was used, because all 198 older persons who participated in the PURE-SA study situated in the peri-urban district of Potchefstroom were included in this study.

- **Sample size**

According to Watson (2008:61), the sub-population of older persons identified by PURE-SA situated in Potchefstroom was 198. This number could have been influenced by older persons who passed away, moved to another town, or refused to participate. Of the 198 questionnaires disseminated, 192 were received back, accumulating to a 98% response rate.

3.3.1.3 Phase 2, step 4

- **Population**

Evidence obtained from step 1 and step 2, consisted of $n = 59$ conclusion statements.

- **Sampling method**

The study employed the all-inclusive sampling method, since all the conclusion statements of this study were used to develop guidelines for the facilitation of self-care amongst older persons in the Potchefstroom district.

- **Sample size**

There were $n = 59$ conclusion statements, of phase 1, step 1 and step 2.

3.3.2 Data collection

3.3.2.1 Phase 1, step 1

The researcher conducted a literature review on self-care and related constructs. In this study, the key words used during the literature review were self-care consisting of self-care agency, self-care agent, self-care deficit; self-care support groups; older persons (geriatric, elderly, ageing), economic factors (older persons' income, health care, health care costs); Orem-self-care deficit theory of nursing; unintentional self-neglect; health promotion; empowerment and quality of life. The following search engines were used to search for related literature. Medline (1990-2009), PsychINFO (1990-2009), Science Direct (1990-2009), Google, Google Scholar and the CINAHL Database (1990-2009).

3.3.2.2 Phase 1, step 2 and 3

Burns and Grove (2005:42) explain the concept data collection as the process where data is collected and then quantified in order to answer research questions (see chapter 1 [1.2]). The same authors mention various ways of data collection, for example, through interviews, observation and questionnaires. The study made use of questionnaires as data collection method. Brink *et al.*, (2006:147) mention some advantages and disadvantages of questionnaires, which were applied to the questionnaires used in this study.

Advantages of questionnaires:

- Questionnaires are a speedy way to collect data from a large population. As mentioned previously, the population consisted of ± 198 participants of who 192 participated in the study.
- Participants could remain anonymous, because the questionnaires were only marked with a barcode, ensuring anonymity.
- Illiterate participants could participate in the study, because the fieldworkers ticked the questionnaires.
- Questions that were not understood could be clarified immediately, because the fieldworkers ticked the questionnaires.
- Answers obtained from the participants could not be influenced by the fieldworkers' views or emotions about the topic, because both the ASA-A and ESCA consisted of a 3-point Likert scale.

Disadvantages include:

- Fieldworkers that filled out the questionnaires were briefed before the time, which was time consuming.
- Some of the older persons' answers were marked "No answer" / "No opinion" making analysis of the questionnaires difficult.

Many articles on the topic of self-care based on Orem's self-care deficit theory of nursing revealed that **ASA-A** was developed in 1988 (Evers *et al.*, 1993:332) and the **ESCA** in 1979 (Kearney and Fleischer, 1979:25-34) based on Dorothea Orem's self-care deficit theory of nursing. Both questionnaires were developed to measure the self-care (self-care is determined through measuring the self-care agency) of a person. Both the above-mentioned measures of self-care are based on Orem's self-care deficit nursing theory. Permission was asked and

obtained from the developers of both the ASA-A and ESCA to use these measures in this study (see Appendix G, H, I and J).

No previous studies have been conducted on the South African population with regard to self-care, although self-care in the older person is of utmost importance, as discussed in chapter 2. This shows how crucial it is to assess and describe the self-care of the older persons, which led to reaching the overarching aim of this study (development of guidelines to facilitate self-care amongst older persons in the Potchefstroom district) (see chapter 5 [5.2]). The researcher, lastly, correlated the ASA-A and ESCA to determine if there is a relationship between these questionnaires (see chapter 4 [4.2.2]).

Both the ASA-A and ESCA questionnaires employ structured scales. The original ASA-A consisted of 24 questions of which 15 are positive and 9 negative (items numbers 2, 6, 11, 13, 14, 15, 20, 23, and 24), which were scored on a 5-point Likert scale ranging from totally agree to totally disagree with numerical values climbing from one to five. The original ESCA consisted of 43 questions of which 33 are positive and 10 negative (items numbers 3, 6, 10, 16, 22, 25, 28, 32, 34 and 39), which were scored on a 5-point Likert scale ranging from very characteristic to very uncharacteristic with numerical values climbing from one to five.

The Statistical Consultation Services of North-West University (Potchefstroom Campus) assisted in determining if the questionnaires could be applied to the South African older person. The statistician agreed that the questionnaires could be used if small adaptations were made on both. The adaptations included changing the items slightly to make the items more understandable to the Setswana-speaking older persons in the South African population as well as changing both the questionnaires from 5-point Likert to 3-point Likert scales. The ASA-A ranged from disagree to agree with numerical values climbing from one to three and the ESCA ranged from very characteristic to very uncharacteristic with numerical values climbing from one to three. These two questionnaires' ranges were opposite of each other. The Department of North-West University (Potchefstroom Campus) translated both questionnaires from English into Setswana after the pilot study had been conducted.

3.3.2.3 Phase 2, step 4

The results from step 1 and 2 were integrated and synthesised, and thereafter deductive and inductive reasoning were employed to develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district.

3.3.3 Pilot study

The population consisted of male and female persons older than 60 years identified by the PURE-SA study living in the peri-urban area of the Potchefstroom district.

According to Burns and Grove (2005:42), a pilot study is defined as a minor study that is based on a proposed study to improve and refine the research method before the major study is conducted. When a pilot study is conducted, participants with the same characteristics and geographical location as well as data collection and data analysis methods should be used. In this study, the pilot study consisted of 27 older persons with the same characteristics as the proposed population studied. For the pilot study, the participants had to volunteer and comply with the following stipulated requirements:

- the person had to be over the age of 60 years;
- volunteered to participate;
- signed a consent form;
- had to be able to speak Setswana or English; and
- participated in the PURE-SA study.

The researcher met the nine fieldworkers used in the PURE-SA study. These fieldworkers were well versed in the Setswana language. Both the ASA-A and ESCA were discussed in-depth with these fieldworkers. The nine fieldworkers were instructed to collect data the following week by only ticking three questionnaires each in order to identify any problems that could potentially occur during the larger data collection period. A follow-up appointment was made with the fieldworkers a week later to discuss the three questionnaires they were instructed to complete. During the follow-up appointment the researcher and fieldworkers discussed the problems they experienced with the questionnaires. Only one problem was identified, which was that the questionnaires should be translated into Setswana to ensure that the questions is exactly asked as they stood in the questionnaires, which was English at that stage. The researcher agreed to the request to translate the questionnaires into Setswana.

The Translation department of North-West University (Potchefstroom campus) assisted in the translation of both the ASA-A and ESCA questionnaires (see Appendix A and B). According to Burns and Grove (2005:415), the main reason for questionnaire translation is to enable researchers to compare concepts between different respondents of different cultures. In this study, the translation helped to ensure the data obtained were valid and reliable. The same authors identify four types of translations namely, pragmatic translations, aesthetic-poetic

translations, ethnographic translations and linguistic translations. The study involved the ethnographic type of translation, which entails the following:

- The original English questionnaires were translated directly into the target language: Setswana.
- After the translation of the questionnaires into Setswana, the researcher asked a Setswana-speaking colleague to read all the items in both questionnaires to confirm that the translation from the English to the Setswana version was identical. The colleague confirmed the translation was indeed correct.
- The Setswana questionnaires were then taken to the fieldworkers that were Setswana literate and they were also asked if the English and Setswana versions were the same. All the fieldworkers agreed that the translation was correct.

The main reason for the use of the ethnographic translation method was to ensure that the translation from English to Setswana was correct, given the fact that the researcher is not Setswana literate.

After translation of the questionnaires into Setswana, a follow-up appointment was made with the fieldworkers to provide them with the translated questionnaires. The fieldworkers subsequently disseminated the Setswana translated questionnaires and started with data collection.

3.3.4 Data analysis

3.3.4.1 Phase 1, step 1

In order to understand self-care and related constructs from a theoretical perspective deductive reasoning was used, after which conclusion statements were deduced (see chapter 2 and chapter 5, table [5.2]).

3.2.4.2 Phase 1, step 2 and 3

Zechmeister and Posavac (2003:3) explain the term data as facts obtained when a scientific study has been conducted. The authors explained that when the researcher used a quantitative research design, data is statistically analysed, interpreted and represented in numbers (see Chapter 4). A very important factor in the analysis of quantitative data is the

power of the analysis. The word *power* in the concept *power analysis* is described by Burns and Grove (2005:354) as the capability of the study to detect differences or relationships in the studied population and that the *power* is influenced by the number of participants ($n = 192$). The authors further added that a low number of participants cause a low *power* for analysis. In this study, the power for analysis was sufficient, because the response rate was 98%. The Cronbach's alpha for the ASA-A was a high .79, which is very close to .80 and the Chronbach's alpha for the ESCA, was a very high .89.

According to Burns and Grove (2005:43), and Brink *et al.*, (2006:171), data analysis is done to decrease, categorise and give meaning to data; in other words, to describe data. The following paragraphs provide an overview on the data analysis procedure followed.

All the completed questionnaires were taken to the Statistical Consultation Services of North-West University, Potchefstroom Campus. SAS (2003) and SPSS (2007) software were used to interpret the data. Each item on both the ASA-A and ESCA was marked by the fieldworkers on instruction of the respondents on a 3-point Likert scale. The ASA-A was marked disagree (numbered 1), neither agree or disagree (numbered 2) and agree (numbered 3), whereas the ESCA was marked oppositely with very characteristic (numbered 1), no opinion (numbered 2) and very uncharacteristic (numbered 3). Both these questionnaires had positively and negatively scored items.

Data analysis included descriptive statistics and inferential statistics. The descriptive statistics included percentage distribution and the inferential statistics included factor analysis, mean analysis and correlational analysis.

3.3.4.2.1 Descriptive statistics

Descriptive statistics were used to examine self-care characteristics and to assess the variable distribution. Descriptive statistics provided the opportunity to arrange the data in such a manner as to be able to understand and give meaning to the phenomenon of self-care from various angles (Burns & Grove, 2005:461). According to these authors, the first step to arrange data collected for interpretation is through frequency distribution. There are three types of frequency distribution namely grouped, ungrouped and percentage distribution. The percentage distribution is employed to describe the percentage of the sample falling in a particular group in this study (Burns & Grove, 2005:462). The results were presented in tables and percentages using row percentages. Row percentages are cell frequencies expressed as a percentage of the particular row, meaning the percentage distribution of a particular answers of each item question (Maree *et al.*, 2008:186) (see Chapter 4 [4.2.1]).

In order to determine the row percentage, the central tendency and variability are two characteristics that should be described when analysing data. The central tendency explains what numbers in the data collected cluster together to describe a typical score and this is measured by using the mean, median and mode measures. The term *mean*, refers to the sum of the scores divided by the number of scores and the balance point; in other words, the average of the score, whereas the *median* is the centre point of the distribution, by splitting the distribution in two parts with the same number of scores in each part. The score value that appears with the greatest frequency is called the *mode*. In order to explain data concisely, basic summary statistics were used (Zechmeister & Posavac, 2003:151).

3.3.4.2.2 *Inferential statistics*

- **Factor analysis**

The researcher used exploratory factor analysis in order to do correlational analysis to correlate the ASA-A and ESCA to determine their relationship. According to Burns and Grove (2005:489-490), a correlation matrix is the scores of all the variables (items) incorporated during factor analysis. The computer software automatically calculates the correlation matrix during data analysis. Maree *et al.*, (2008:219-221) stated that “factor analysis performed on a set of items produces as its primary output a factor loading matrix”. In this matrix each item contains a loading on a specific factor. These loadings give correlation between the factor and items; when the loading has large values it indicates that specific items belong to that factor. The number of eigenvalues correlates with the number of items. According to the same authors, the eigenvalue rule “there are as many factors extracted as the number of eigenvalues greater than one”, means that when the eigenvalue is greater than one, the presence of a factor is probable. During factor analysis, results are shown on the factor loading matrix. When the factor loading is greater than 0.30, this indicates that those items belong to a certain factor and items below 0.30 belong to another factor whilst Burns and Grove (2005:491) mentioned that a factor loading of 0.30 is acceptable to use in a specific factor (see chapter 4 [4.2.2]).

After the items were clustered together by the computer the researcher examined each of the variables (items) clustered together and attempted to establish a relationship between them to explain the meaning of cluster. According to Maree *et al.* (2008:13), items are grouped together when answered in a similar manner and therefore measure the same aspect or factor. Items 2, 6, 13, 20, 23 and 24 of the ASA-A were reverse scored during factor analysis as well as items 3, 6, 10, 16, 25 and 28 of the ESCA, as

stipulated by the developers (see Appendix's H and J). Theoretical meaning was given to each factor by giving each factor a name (see chapter 4 [4.2.2]). After confirmation of the structure, internal reliability of each factor was determined.

- **Mean analysis of factors**

The mean is the outcome of the sum of all values of each questionnaire (Babbie, 2010:429). Brink *et al.*, (2006:177), describe the mean as the statistical average of all the scores in a distribution. The mean is determined by adding all the scores together and dividing the score by the total number of scores. The means of all the factors on the ASA-A and ESCA were identified. Each of the factor's means was discussed according to the score it had. These ASA-A mean scores ranged between 1.96 and 2.81, and the ESCA mean scores ranged between 1.26 and 1.93 (see chapter 4 [4.2.2] under mean analysis).

- **Correlational analysis**

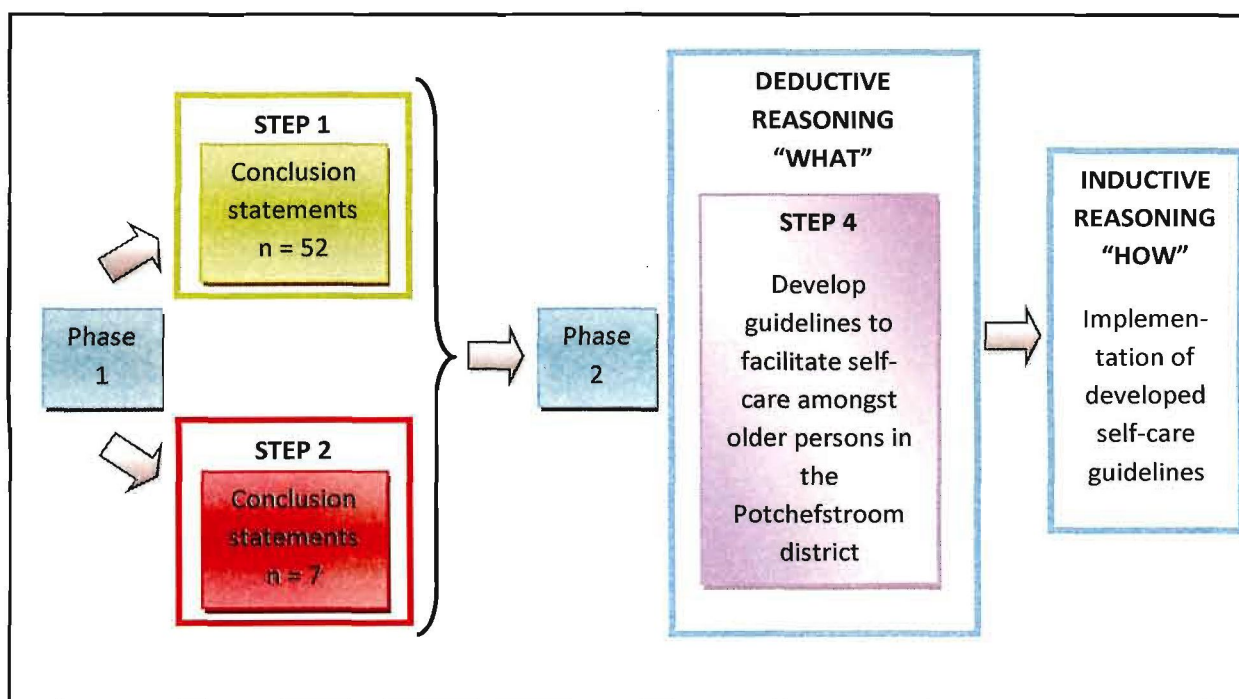
In view of objective 3 of the study, Pearson's correlational analysis was used to correlate the factors of the ASA-A and ESCA to determine the relationship (Zechmeister & Posavac, 2003:335; Burns & Grove, 2005:483-484). In order to perform correlational analysis, all data obtained should have been from the same population (Brink *et al.*, 2006:180). The same population group completed both the ASA-A and ESCA. The correlation *r* means the degree of linear co-variation; the term linear is explained as a straight line used to sum up the relationship between the factors (see chapter 4 [scatter diagram 4.1]). Correlational analysis provides two sets of factors. Firstly, it indicates the nature of the linear relationship (positive and negative) and secondly, the magnitude (strength) of the linear relationship between the two factors. When investigating the relationship of the factors, a positive relationship means that when the one score of the variable is high the other is high and vice versa. When the relationship is negative the scores are opposite of each other. The results ranged between the values of the correlation coefficient ranging from +1 to -1. This coefficient determines the strength of the linear relationship between two quantitative factors. The positive coefficient implies that there is a positive correlation whereas the negative correlation implies a negative coefficient, whereas 0 means there is no correlation (Brink *et al.*, 2006:181). In this study, there was a very good negative linear relationship of ($r = -.791$) between the ASA-A and ESCA.

3.3.4.3 Phase 2, step 4

- **Deductive and inductive reasoning**

Deductive and inductive reasoning served to analyse the data of phase 2, step 4. Burns and Grove (2005:733 & 739) explain deductive reasoning as reasoning from general to specific and inductive reasoning as analysis from specific to general, meaning specific instances are observed and then combined into a general statement. Figure 3.4 (below) indicates the deductive and inductive reasoning used in this study to develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district.

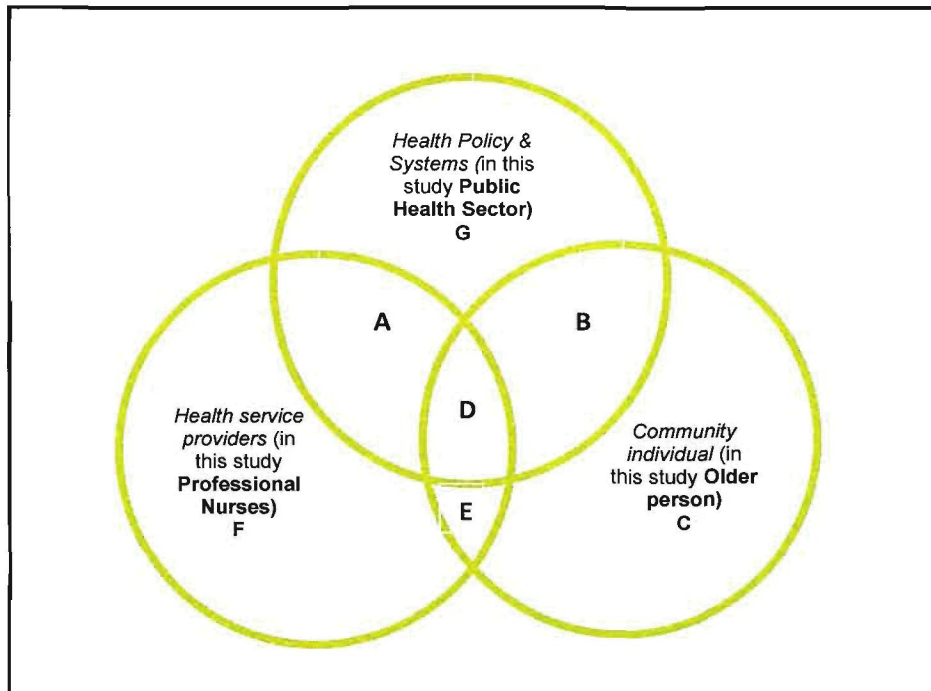
Figure 3.3: Deductive and inductive reasoning used to develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district



Deductive reasoning aided in reaching the overarching aim of this study by establishing conclusion statements during conduction of the literature review in order to reach objective 1 (Phase 1, step 1). After this, the self-care of the older persons was assessed using the ASA-A and ESCA. Analysis of these questionnaires provided descriptive statistics. After discussion of the descriptive statistics, deductive reasoning was used to establish conclusion statements regarding self-care of the older persons reaching objective 2 of this study (Phase 1, step 2). The literature review, self-care assessment (which led to the identification of the self-care deficits) as well as Menon's psychological health empowerment model (see chapter 2 [2.7]) formed the basis to develop guidelines to facilitate self-care amongst older persons in the Potchefstroom

district. Figure 3.3 indicates how Menon's psychological empowerment model served basis to develop the self-care guidelines.

Figure 3.4: Psychological health empowerment model



(Adapted from Menon, 2002:31)

The three elements identified in Menon's psychological health empowerment model, namely the public health sector, professional nurses and older persons, are interchangeably as well as individually connected to each other, and play key roles in empowerment and support of the older persons to improve and/or eliminate self-care deficits. The professional nurse as stated by Whitehead (2009: 868), have massive potential to influence self-care behaviours and promote health, because they work in the correct environment to empower and promote health in millions of people. The professional nurse will serve as the key facilitator and implementer of the developed guidelines in the form of health education provided in self-care support groups (see chapter 5 [5.2]).

In this study, the self-care guidelines are applied as a health promotion technique where the public health sector and professional nurse facilitate the older persons to enhance self-care and lower and/or eliminate self-care deficits. The focus of health promotion is to mobilise, organise and educate a population, and therefore, health promotion, health education and empowerment are linked, and focus on increasing community (in this study older persons living in the community) participation (Laverack & Labonte, 2000:255-256) (see chapter 2 [2.6]).

It is clear that not only do the professional nurse and older persons play a key role in health promotion but also the public health sector. The health sector is regulated by government, who is also responsible for supplying health systems and policies. The professional nurse and the older persons needs some form of support from the public health sector to promote health. This support would empower both the professional nurse (facilitating self-care) and the older persons (implementing self-care) to be able to make autonomous decisions. The above-mentioned will not only improve health but also decrease the burden of health care and health care costs on the public sector.

3.3.5 Reliability and validity

In the following paragraphs, the validity of the two questionnaires as tested by the developers is discussed.

3.3.5.1 Phase 1, step 1

Content validity was achieved during Phase 1, step 1 through the use of evidence (conclusion statements) obtained from literature (see chapters 2 and 5 [5.1]), the usage of questionnaires developed by experts on self-care of the older persons as well as the usage of a representative population (Burns & Grove, 2005:732).

3.3.5.2 Phase 1, step 2 and 3

- **Reliability**

Reliability means that if the instrument (in this study the questionnaire) is repeated on the same participants at different periods the results of the questionnaire will be the same. There are four different types of reliability namely, test-retest reliability, equivalent form reliability, split-half reliability and internal reliability (Maree *et al.*, 2008:215).

The type of reliability that is applicable in this study is internal reliability. Another term that has the same meaning as internal reliability is internal consistency. Questions in a questionnaire are called items. Items are supposed to measure a certain construct; in this study, the construct measured was self-care. Cronbach's alpha coefficient is based on inter-item correlations; this coefficient was used to determine the internal reliability of this study. When the alpha coefficient is close to 1, the internal consistency is high,

meaning that the items on the questionnaires are strongly correlated. On the other hand, if the internal consistency was low, the alpha coefficient would have been close to 0, meaning that the answers do not strongly correlate with each other.

The following rules are followed to understand the Cronbach's alpha coefficient:

- 0.90 high reliability;
- 0.80 moderate reliability; and
- 0.70 acceptable reliability.

If the reliability estimates are 0.80 and above, the questionnaire is seen as acceptable, and when under 0.60, reliability is unacceptable (Maree *et al.*, 2008:215-216), but, according to Field (2005:668), when measuring psychological constructs, values below .70 are acceptable due to the variability of constructs measured. The same author adds that the Cronbach's' alpha of a questionnaire is affected by the number of items on the questionnaire: the higher the amount of items on the questionnaire the higher the Cronbach's alpha coefficient; the lower the amount of items on the questionnaire, the lower the Cronbach's alpha coefficient. The items on the original ASA-A accumulated to 24, but during factor analysis the researcher and statistician removed item 11 because the item was phrased complicatedly and correlated negatively in relation to other items. In the original ESCA, there are 43 items, but during factor analysis five items were removed, which included items 9, 11, 29, 34 and 39. These items were phrased complicatedly and correlated negatively in relation to other items in the factor. For this reason, the ESCA consisted of 38 items during factor analysis. The overall Cronbach's alpha coefficient of the ASA-A was .79, which is very close to .80, and the Cronbach's alpha for the ESCA was .89, indicating a very high reliability.

- **Validity**

Validity means that the instrument measures what it is supposed to measure (Burns & Grove, 2005:775; Brink *et al.*, 2006:159; Evers *et al.*, 1993:337). In this study, the questionnaires were used to measure self-care (self-care is measured through measurement of self-care agency) of the older persons. Both the instruments were developed in 1979 and 1988 respectively and have been used since in numerous studies.

■ Appraisal of self-care agency scale (ASA-A)

The ASA-A is a reliable and valid tool as. Evers *et al.*, (1993:332-337) conducted a study where the developers of the ASA-A scale tested construct validity on a Dutch translation of the ASA-A questionnaire based on Orem's self-care deficit theory of nursing in another language. This study focused on the validity of the instrument when translated into another language. The developers translated the questionnaire into Dutch and administered the questionnaire to a Dutch older population. This questionnaire measured both theoretical as well as empirical considerations. According to the same authors, validity of an instrument is not the property of the tool, but rather of an instrument given to a specific sample under certain circumstances for a certain purpose, and that interpretation of data can only be validated by a specified procedure. Construct validity was the criterion of preference for this instrument. Construct validity centres its attention on the degree to which a measure performs in accordance with theoretical expectations. Theory testing is derived from hypotheses in different studies to support construct validity. In this study, the group technique procedure was used; this procedure entailed administration of the questionnaire to people with "known" characteristics and then predicting the scores and course of differences. Construct validity of the ASA-A was tested for its likelihood to discriminate considerably with the level of mean scores of four groups of Dutch elderly known to fluctuate in the actual dependency on old-age homes and related self-care. The ASA-A was administered to four groups of Dutch elderly persons of age 65 and older with no serious psychological-geriatric pathology, who volunteered to participate and were able to answer the questions asked. The internal consistency of the ASA-A using Cronbach's alpha coefficient on the Dutch population was a very high .82. The developers expected a negative relationship because they felt the higher the self-care agency of the older person, the less dependent the older person was on the old-age home. As a result, the older persons living in the community scored a significantly higher self-care agency than those who received some kind of help from the old-age home. The results were that Orem's self-care deficit theory is testable within the Dutch culture. According to authors of this study, the implication of this study for future nursing research was that this instrument is a tested valid instrument available to measure the operability of self-care agency. The reliability of the instrument translated to a Dutch older population was a very high Cronbach's alpha coefficient of .89, whereas the Cronbach's alpha coefficient of the ASA-A

questionnaire translated into Setswana for the Setswana population was .79 (see chapter 4 [4.2.2]).

■ Exercise of self-care agency scale (ESCA)

Content validity of the ESCA was determined by the developers of the ESCA. The developers Kearny and Fleisher (1979:29) stated the following: "Of the initial 44 items, 29 items had an interrater reliability of 80 percent and were retained unchanged. The 15 items that remained had an interrater reliability of 60 percent; one item was deleted and one was reworded. Construct validity was explored by comparing scale scores with subscales from Rotter Locus of Control Scale and the Adjective Check List (ACL). Exercise of self-care agency was not related to internal or external locus of control. Scale scores were positively related to ACL self-confidence, achievement and interception subscales and were negatively related to ACL abasement subscales. Instrument split-half reliabilities were .80 and .81 in initial and repeated testing of nursing students and .77 in a single testing of psychology students. Test-retest reliability was .77 for the nursing students at an unknown time interval. In a second study, to determine construct validity, the scale scores were correlated with scores from the Self-Directed Learning Readiness Scale. Correlations were stronger for a group of 62 post-basic nursing students ($r=0.505$) than for a group of 57 adult diabetic patients ($r=0.323$). Further studies by other authors confirmed test-retest and split half reliabilities. Construct validity using principal components factor analysis consistently produced a four-factor solution in three studies explaining about 30 percent of the variance with some variation in item loadings. Alpha coefficients ranging from 0.67 to 0.83 for individual factors and the total instrument are reported". The reliability of the instrument was tested by using Cronbach's alpha coefficient and according to the Cronbach's alpha coefficient of .80, this instrument had a very high reliability on the studied population. The ESCA had a moderately high Cronbach's alpha coefficient of .89 on the studied population (see [3.3.5.2] and chapter 4 [4.2.2] table [4.11]).

3.3.5.3 Phase 2, step 4

Content validity was achieved (see [3.3.5.1]). The researcher (see [3.3.5.1]) then used deductive and inductive reasoning to develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district (see [3.3.4.3]).

3.4 ETHICAL CONSIDERATIONS

This study was a part of the PURE-SA study that focused on older persons. Ethical approval **Number 04M10** was granted (see Appendix D and E). The researcher acknowledges the importance of adherence to ethics. The research study was conducted on older persons who are classified as vulnerable persons. The participants that participated in the research study signed voluntary consent forms after the study was explained to them and they were willing to participate. Table 3.2 discusses the ethical principles the researcher adhered to during this research study.

Table 3.2: Ethical principles the researcher adhered to during the research study

Ethical aspect / Principle	Application in this study
Self-determination	According to Burns and Grove (2005:181), self-determination means that the participant has the right to voluntarily decide whether he/she wants to participate in the study, or to terminate participation when he/she chooses to, without any consequences. The researcher adhered to this principle by giving the participants the voluntary choice to partake in the study or not.

Table 3.2: Ethical principles the researcher adhered to during the research study (continue)

Ethical aspect / Principle	Application in this study
Privacy	Right of privacy means that the participant has the right to decide who could share in the information that the participant gives and has the right to withhold the information from others; this includes beliefs, attitudes, values, opinions and medical records. The right of privacy was adhered to (Brink <i>et al.</i> , 2006:33), as there were no names to identify the older persons on the questionnaire.
Autonomy and confidentiality	The right to autonomy and confidentiality (breach of confidentiality, maintaining confidentiality). Autonomy means that a person that falls in the vulnerable group, which includes the older persons of this study, and who are unable to give informed consent, are not exploited. In this study, no-one that did not give voluntary consent participated in this study. Confidentiality means that information obtained from participants in the study will not be shared with others without the participants' consent. The researcher ensured that the older persons were not exploited and that all participants' information was handled confidentially with also no names written on the questionnaires (Burns & Grove, 2005:182-188).
Fair treatment	Fair treatment (fair selection of subjects, fair treatment of subjects) means that the participant was to be treated fairly, no matter what race, culture, social values and sexual preference. The researcher chose participants based on the set criteria and who formed part of the peri-urban population of PURE-SA study (Brink <i>et al.</i> , 2006:33). The researcher adhered to this principle by also assuring the fieldworkers knew and informed participants that they could withdraw at any stage if they wished to without any form of discrimination towards them.

Table 3.2: Ethical principles the researcher adhered to during the research study (continue)

Ethical aspect / Principle	Application in this study
Right of beneficence	The right of beneficence means that the participant is protected from discomfort and harm (no anticipated effects, temporary discomfort, unusual levels of temporary discomfort, rest of permanent damage, and certainty of permanent damage). Harm could be of a physiological, emotional, social and of economic nature. The researcher guarded against non-compliance of the right of beneficence; while conducting the study, the participants were not exposed to any form of harm in this study (Burns & Grove, 2005:190-191).
Competency	Burns and Grove (2005:196) describe competency as a person having the ability to make autonomous decisions when participating in a study. The researcher has worked in the community, PHC clinics as well as at a service centre for the aged and therefore understands that literacy and language could be a barrier to competent decision-making. The researcher used trained fieldworkers that have experience working in this specific community to explain and fill out the questionnaires.

Table 3.2: Ethical principles the researcher adhered to during the research study (continue)

Ethical aspect / Principle	Application in this study
Informed consent	According to Burns and Grove (2005:193), informed consent (introduction of research activities, description of risks and discomforts, description of benefits, disclosure of alternatives, assurance of anonymity and confidentiality, compensation for participants in research, offer to answer questions, no coercive disclaimer, option to withdraw, consent to incomplete disclosure) means that the participants should be informed about the research conducted as well as give voluntary consent to ensure the research is conducted ethically. Informed consent means that there is an agreement between the researcher and the participants participating in the research that they received essential information regarding the study conducted. Brink <i>et al.</i> , (2006:33) add to this by mentioning that informed consent means that the participant has freedom of choice in making the decision whether to participate or not. The researcher ensured informed consent by giving a voluntary consent form which the fieldworkers translated into Setswana, to be signed by the participants before the fieldworker could continue with data collection (see Appendix C).
Voluntary consent	Voluntary consent is the decision of the participant to take part in the study, without coercion, persuasion or power applied by the researcher (Burns & Grove, 2005:196). The researcher trained the fieldworkers to ensure that each participant sign voluntary consent before continuing with the research (see Appendix C).
Documentation of informed consent	A copy with an example was included in the study and a signed copy was included in participants' files.

3.5 CHAPTER SUMMARY

In this chapter, an in-depth discussion on the quantitative, descriptive, correlational and contextual research design was given. The discussion then focused on the research method, which included the population, sampling method and sample size. After the in-depth discussion on the research method, the data collection, pilot study and data analysis procedure received attention. The method of data analysis, which included descriptive and inferential statistics, was then discussed. Descriptive statistics facilitated in the identification of self-care deficits in the studied population after assessing their self-care (see chapter 4 [4.2.1]), which led to the development of guidelines to facilitate self-care amongst older persons (see chapter 5 [5.2]). Inferential statistics were used to determine the correlation between the ASA-A and ESCA (see chapter 4 [4.2.2]). The validity and reliability of both the questionnaires subsequently received attention, and lastly, the ethical considerations applicable to this research study were discussed.

CHAPTER 4

RESEARCH RESULTS

(Phase 1: Step 2 and 3)

4.1 INTRODUCTION

In the previous chapter, the research design and method, data analysis, validity and reliability as well as ethical considerations were discussed. In this chapter the research results are discussed. Table 4.1 indicates the structure of the research project, to obtain the research results of Step 2 and 3.

Table 4.1: Structure of research project, to obtain research results of Step 2 and 3

Phase 1: Compilation of evidence regarding self-care of the older person in the Potchefstroom district for the development of guidelines to facilitate self-care for older persons in the Potchefstroom district	
Objectives	
Objective 1: Conduct a literature review to understand self-care and related constructs from a theoretical perspective	Step 1: Explore and describe the literature to understand self-care and related constructs
Objective 2: Assess the self-care of older persons living in the Potchefstroom district	Step 2: Explore and describe the self-care agency of the older person in the Potchefstroom district
Objective 3: Correlate the ASA-A and the ESCA	Step 3: Determine the relationship between the ASA-A and ESCA
Phase 2: Development of guidelines	
Overarching aim	
Aim: Develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district	Step 4: Formulation of self-care guidelines

The rapid increase of the older population and the effect that this increase has on the health care system, especially the public health sector, emphasises the importance of self-care. The study embarked on developing guidelines to facilitate self-care amongst older persons. If the developed guidelines are implemented in self-care support groups, the older person will be supported and empowered to make autonomous decisions regarding self-care enhancing quality of life. In order to develop guidelines self-care of the studied older population had to be assessed. Self-care is determined by measuring the self-care agency (self-care capability and power) of a person, to identify self-care deficits from which the guidelines could be written.

Two structured questionnaires, the ASA-A and ESCA, based on Dorothea Orem's self-care deficit theory of nursing, which focused on measuring self-care of a person, were administered to the older population in the Potchefstroom district. Minor adaptations, which included translation of the questionnaires into Setswana and changing the original 5-point Likert scale into a 3-point Likert scale to fit the older Setswana-speaking population (see Appendix's A, B and chapter 3 [3.3.2.2] and [3.3.3]), were made.

The researcher gave the participants a letter explaining the researcher study which included the ethical approval number as well as a voluntary consent form to be signed before administration of the questionnaires (see Appendix C and E). The role of the fieldworkers included not only ensuring of voluntary consent of participants before completion of the questionnaires but also safekeeping of the completed questionnaires to ensure privacy and confidentiality. The population consisted of 198 older persons of which 192 participated, accumulating to a 98% response rate. The 192 completed questionnaires were given to the Statistical Consultation Department of North-West University, Potchefstroom Campus, where the data was analysed by both the researcher and a statistician.

Data analysis and the discussion of the results follows. After data analysis the researcher obtained descriptive and inferential statistics. The descriptive statistics enabled the researcher to reach objective 2 of this study, which was the assessment of self-care (see [4.2.1]). Inferential statistics enabled the researcher to reach objective 3 of this study, which was the correlation of the ASA-A and ESCA (see [4.2.2]).

4.2 RESULTS AND DISCUSSION

The 192 completed questionnaires of the population consisting of 198 persons were taken to the Statistical Consultation Services of North-West University, Potchefstroom Campus. The statistician used SAS (2003) and SPSS (2007) Institute Inc. software, to analyse and interpret the data. Secondly, the reliability and validity of both questionnaires were computed by using Cronbach's alpha coefficients. The study first investigated the ASA-A, and secondly, the ESCA.

Cronbach's alpha coefficients were used to determine the reliability of both the ASA-A and ESCA. According to Maree *et al.*, (2008:215-216), the values of Cronbach's alpha coefficient mean (see chapter 3 [3.3.5.2]):

- 0.90 high reliability;
- 0.80 moderate reliability;
- 0.70 acceptable reliability

If the reliability estimates are 0.80 and above the questionnaire is acceptable and under 0.60 reliability of the questionnaire is unacceptable (Maree *et al.*, 2008:215-216), but according to Field (2005:668), when measuring psychological constructs, value *below* .70 is acceptable due to the variety of constructs measured. The same author added that the number of items determines the Cronbach's alpha; if the number of items is low; the Cronbach's alpha coefficient is low, not due to unreliability of the questionnaire (see chapter 3 [3.3.5.2]).

4.2.1 Descriptive statistics

The researcher and statistician used descriptive statistics of frequency and percent distribution. First the ASA-A was analysed and thereafter the ESCA.

Table 4.2 ASA-A: Percentage distribution

Criteria	Disagree	Neither agree or disagree	Agree	Missing values
1. If situations in my life change, I make the necessary changes to stay healthy.	7.8	8.9	83.3	0
2. I rarely check if the measures I take to stay healthy are good enough.	46.4	13.5	40.1	0
3. If I have difficulty to move, I make the needed changes.	16.7	13.0	70.3	0
4. I make sure that my environment stays clean.	2.1	8.9	89.1	0
5. When needed, I change my way of living to stay healthy.	5.7	17.7	76.6	0
6. I often feel too tired to care for myself in the way I know I should.	45.8	17.2	37.0	0
7. I look at better ways to care for myself.	6.8	10.9	82.3	0
8. To make sure I stay clean, I take a bath or shower more often, if necessary.	7.8	9.4	82.3	0.5
9. I eat in a way that will keep my weight normal.	16.1	29.2	54.7	0
10. When needed, I can be alone.	23.4	19.3	57.3	0
11. I often think about including a programme of exercise and rest in my daily routine, but never get around doing it.	43.2	15.1	41.1	0.5
12. I have a number of friends that will help me if needed.	19.3	27.1	53.6	0
13. I rarely get enough sleep to feel rested.	45.3	13.5	37.5	3.6

Criteria	Disagree	Neither agree or disagree	Agree	Missing values
14. When I am informed about my health, I ask questions to understand what it means.	10.9	17.7	67.7	3.6
15. I examine my body to see if there are any changes.	22.9	15.1	57.8	4.2
16. If I take new medication, I ask about the negative effects of the medication.	42.7	16.1	37.5	3.6
17. In the past I have changed some of my old habits to make my health better (e.g. stopped drinking alcohol).	28.6	17.7	50.0	3.6
18. I take measures to ensure the safety of myself and my family.	13.0	13.0	69.8	4.2
19. I make sure that the things I do to stay healthy will help me.	8.9	9.9	77.6	3.6
20. In my daily activities I seldom take time to care for myself.	38.0	16.7	41.7	3.6
21. When I feel my health is in danger, I can get information to help me.	5.7	11.5	79.2	3.6
22. I seek help when unable to care for myself.	8.9	11.5	75.5	4.2
23. I seldom have time for myself.	34.9	19.8	41.7	3.6
24. Because I cannot move very well, I cannot care for myself in the way I would like to.	42.2	13.5	40.6	3.6

Copyright 1988 Revised Version. (Evers *et al.*, 1993).

The analysis of the ASA-A, indicated that the 83.3% older persons stated that if circumstances in their life changed they made the necessary adaptations to stay healthy. As much as 82.3% looked for better ways to care for themselves and 77.6% ensured that the things they do to stay healthy really works. The majority of older persons (79.2%) agreed that when they feel their health is in danger they seek help and 75.5% mentioned that they sought help when unable to care for themselves. Fifty percent (50.0%) of the population studied changed some of their old habits by, for example, stopping alcohol usage to increase health whereas 57.8% reported that they examined their body to look out for any changes. 89.1% made sure their environment

stayed clean and 82.3% cared for personal hygiene. According to the mentioned percentages, it is clear that the study population have the capability to decide for themselves when it is necessary to make the necessary changes and also to seek help in order to maintain optimal health. Although they have the capability to look after themselves, only 41.7% of older persons agreed that they have time to care for themselves. More than a third of the group (37.5%) mentioned that they rarely get enough sleep to feel rested and 37.0% agreed that they often feel too tired to care for themselves in the way they know they should. From the above-mentioned, it is clear that the time to care for themselves and rest deprivation are issues, but 41.1% of the population agreed that they often think about including a programme of rest and exercise in their daily routine, but never get around to implementing the programme.

A discussion on the percentage distribution of the ESCA follows.

Table 4.3: ESCA: Percentage distribution

Criteria	Very characteris- tic	No opinion	Very uncharac- teristic	Missing Values
1. I would gladly give up some of my set ways if it meant improving my health.	81.8	5.2	12.0	1.0
2. I like myself.	90.6	2.6	6.3	0,5
3. I am often too tired to look after my health the way I would like to.	42.7	18.2	38.0	1
4. When my health feels weak, I know where to ask help.	79.7	10.9	8.9	0.5
5. I take pride in doing the things I need to, to stay healthy.	75.0	12.0	12.0	1.0
6. I tend to neglect my personal needs.	51.0	19.8	28.6	0.5
7. I know my strong points.	75.5	15.1	7.8	1.6
8. I seek help when unable to care for myself.	78.6	13.0	7.8	0.5
9. I enjoy starting new projects.	41.7	18.8	39.1	0.5
10. I often put off doing things that I know would be good for me.	50.0	8.9	40.1	1.0

Table 4.3: ESCA: Percentage distribution (continued)

Criteria	Very characteris- tic	No opinion	Very uncharac- teristic	Missing Values
11. I usually try home remedies that have worked in the past rather than going to see a doctor or nurse for help.	50.5	15.1	33.3	1.0
12. I make my own decisions.	80.7	8.9	9.4	1.0
13. I perform certain activities to keep from getting sick.	64.1	10.9	24.5	0.5
14. I strive to better myself.	84.9	8.3	6.3	0.5
15. I eat a balanced diet.	47.4	32.8	18.8	1.0
16. I complain about things that bother me without doing much about them.	43.8	10.9	44.3	1.0
17. I look for better ways to look after my health.	81.8	8.3	9.4	0.5
18. I think my health is very well.	43.2	24.0	31.8	1.0
19. When I have a problem, I want the nurse/doctor to tell me what to do.	80.2	12.5	6.8	0.5
20. I deserve all the time and care it takes to maintain my health.	77.6	13.5	7.8	1.0
21. I do what I have decided to do.	81.8	6.3	11.5	0.5
22. I care to learn about my body and how it functions.	75.5	14.1	9.4	1.0
23. I can only be good for others, if I am good to myself.	80.7	7.8	10.9	0.5
24. I understand my body and how it functions.	62.0	19.8	17.7	0.5
25. I rarely carry out the resolutions I make concerning my health.	44.8	13.5	40.1	1.6
26. I am a good friend to myself.	85.9	7.3	5.7	1.0
27. I take good care of myself.	81.8	9.9	7.3	1.0
28. I only try to promote my health when the opportunity arises.	41.7	12.0	45.8	0.5

Table 4.3: ESCA: Percentage distribution (continued)

Criteria	Very characteris- tic	No opinion	Very uncharac- teristic	Missing Values
29. I have a planned programme for rest and exercise.	35.9	17.2	45.8	1.0
30. I want to learn about diseases and how it influences me.	77.6	11.5	9.4	1.6
31. I enjoy life.	80.7	10.4	7.8	1.0
32. I contribute to my family's functioning.	80.7	9.9	7.8	1.6
33. I take responsibility for my own actions.	85.9	5.2	7.8	1.0
34. I have little to give to others.	19.3	18.2	60.9	1.6
35. I can usually tell that I am coming down with something days before I get sick.	61.5	18.2	19.3	1.0
36. Over the years I have noticed the things to do that make me feel better.	77.1	12.5	8.9	1.6
37. I know what foods to eat that keep me healthy.	64.1	25.5	8.9	1.6
38. I want to learn all that I can about my body and how it functions.	78.1	8.9	10.4	2.6
39. Sometimes when I feel sick I ignore the feeling and hope it goes away.	29.2	12.0	57.8	1.0
40. I seek information to care for myself.	74.5	9.9	14.6	1.0
41. I feel I am a valuable member of my family.	79.7	10.9	8.3	1.0
42. I remember when I had my last health check and return on time for my next one.	64.6	16.1	18.2	1.0
43. I understand myself and my needs pretty well.	85.4	6.8	6.8	1.0

Copyright 1979. (Kearney & Fleischer, 1979)

According to the percentage distribution of the ESCA, 90.6% of the older persons studied like themselves, 81.8% would gladly give up some of their set ways if it meant improving their health, 75.0% take pride in doing the things they need to do in order to stay healthy and 81.8% enquire for better ways to look after their health. Some 78.6% of older persons seek help when unable to care for themselves. 80.7% mentioned that they make their own decisions and 85.9% take responsibility for their own actions whereas 85.4% mentioned that they understand themselves and their needs pretty well. Nearly two thirds (64.1%) of older persons' performed activities to prevent disease, 81.8% looked for better ways to care for their health whilst 80.2% wanted information from health care professionals when they experience problems. As much as 79.7% knew where to seek help when their health feels weak and 75.5% cared to learn about their own bodies and how it functions and 77.6% wanted to learn about diseases and how it influences them, whereas 78.1% wanted to learn all they can about their body and how it functions. Sixty two percent (62.0%) understood their body and how it functions, whilst 74.5% sought information to care for themselves, but only 41.7% tried to promote their health when the opportunity presented itself. Half, 50.0%, often put off doing things that they know would be good for themselves, 43.8% complained about things that bothered them, but do not do anything about it and 51.0% agreed that they tend to neglect their personal needs.

As much as 85.9% mentioned that they are a good friend to themselves and 81.8% felt that they do take good care of themselves, 77.1% felt that they have picked up on things to do over the years that make them feel better and 61.5% can usually tell when coming down with something days before they fall ill. Some 80.7% contributed to their families' functioning whereas 79.7% felt that they are a valuable member of their family; 19.3% felt they have little to give to others. Some 42.7% often felt too tired to look after their health the way they would like to. Only 35.9% had a planned programme for exercise and sleep, whereas only 64.6% remembered when they had their last health check and return time.

The following conclusion statements focus on self-care deficits (self-care limitations) found in the descriptive statistics of the ASA-A and ESCA.

4.2.1.1 Conclusion statements of identified self-care deficits found in the ASA-A and ESCA

- The older person has a deficit in time management skills, affecting self-care.
(ASA-A: Items 20 and 23
ESCA: Items 20 and 25)

- The older person has an energy deficit, affecting self-care.
 (ASA-A: Items 6,9 and 13
 ESCA: Items 3, 15 and 37)

- The older person has a sleep deprivation deficit.
 (ASA-A: Items 6 and 13
 ESCA: Item 3)

- The older person has a lack of knowledge and ability to acquire knowledge with regard to health and self-care.
 (A SA-A: Items 2, 5, 14 and 15 (Lack of knowledge)
 ASA-A: Items 14, 15, 16, 21 and 22 (Lack of ability to acquire knowledge)
 E SCA: Items13, 24, 28 and 35 (Lack of knowledge)
 ESCA: Items 4, 8, 17, 19, 22 and 40 (Lack of ability to acquire knowledge))

- The older person has lack of a rest, exercise and self-care programme.
 (ASA-A: Items 11, 13 and 19
 ESCA: Items 25 and 29)

- The older person has a self-care deficit caused by physical deterioration.
 (ASA-A: Items 3 and 24
 ESCA: 0 items)

- The older person experiences a lack in the performance of activities to prevent/decrease self-care deficits.

(A SA-A: Items 1, 7, 9, 17, 18, 19 and 22

ESCA: Items 5, 6, 8, 10, 13, 15, 16, 17, 19, 22, 25, 28, 30, 33, 38, 39, 40 and 42)

4.2.2 Inferential statistics

- **Factor analysis**

Inferential statistics was employed in order to correlate the ASA-A and ESCA to determine their relationship, including factor analysis. Factor analysis determines the interrelationship among the different variables (in this study items) and disentangles their relationships, to identify which items cluster together. Items cluster when they are closely linked. These clusters are called factors (Burns & Grove, 2005:489). The factors of the questionnaires were correlated because it was more practical, since there are many items in each questionnaire.

Table 4.4 indicates the factor analysis of the ASA-A. The discussion regarding factor analysis of the ASA-A follows below the table; the discussion on reliability in Chapter 3 [3.3.5.2] should be kept in mind when looking at the Cronbach's alpha scores.

Table 4.4: Factor analysis of the ASA-A

Factor	Component							
	1	2	3	4	5	6	7	8
Factor analysis	Self-care	Physical ability to care for self	Ability to perform therapeutic self-care demands	Understand self-care	Ability to perform self-care and integrate with self, family and community	Ability to acquire self-care knowledge	Make self-care decisions	Lifestyle changes to care for self
Items								
17* In the past I have changed some of my old habits to make my health better (e.g. stopped drinking alcohol).	<u>.773</u>							
2* I rarely check if the measures I take to stay healthy are good enough.	<u>.471</u>	-.313	.322					
20* In my daily activities I seldom take time to care for myself.	<u>.461</u>	-.361						
6* I often feel too tired to care for myself in the way I know I should.		<u>.854</u>						
24* Because I cannot move very well, I cannot care for myself in the way I would like to.		<u>.837</u>						
13* I rarely get enough sleep to feel rested.		<u>.583</u>						
23* I seldom have time for myself	.323	<u>.576</u>						
8 To make sure I stay clean, I take a bath or shower more often, if necessary.			<u>.776</u>					
4 I make sure that my environment stays clean.			<u>.739</u>					
18 I take measures to ensure the safety of myself and my family.				<u>.758</u>				
19 I make sure that the things I do to stay healthy will help.				<u>.786</u>				
10 When needed, I can be alone.					<u>.644</u>			
3 If I have difficulty to move, I make the needed changes.	-.311	.304			<u>.589</u>			

Factor	Component							
	1	2	3	4	5	6	7	8
Factor analysis	Self-care	Physical ability to care for self	Ability to perform therapeutic self-care demands	Understand self-care	Ability to perform self-care and integrate with self, family and community	Ability to acquire self-care knowledge	Make self-care decisions	Lifestyle changes to care for self
9 I eat in a way that will keep my weight normal.						<u>-.664</u>		
14 When I am informed about my health, I ask questions to understand what it means.						<u>-.645</u>		
15 I examine my body to see if there are any changes.	.350			.315		<u>-.445</u>		
16 If I take new medication, I ask about the negative effects of the medication.	-.388					<u>-.583</u>		
21 When I feel my health is in danger, I can get information to help me.							<u>.878</u>	
22 I seek help when unable to care for myself.							<u>.704</u>	
1 If situations in my life change, I make the necessary changes to stay healthy.								<u>-.656</u>
5 When needed, I change my way of living to stay healthy.								<u>-.746</u>
7 I look at better ways to care for myself.			.420					<u>-.545</u>
12 I have a number of friends that will help me if needed.					.419			<u>-.419</u>
Cronbach's alpha	.63	.76	.54	.61	.33	.59	.57	.60

* Questions were reversed scored according to developers 1988 (Evers *et al.*, 1993) (see Appendix H)

- **Discussion on factor analysis of ASA-A**

The first factor was labelled *Self-care*. The items on this factor are negatively stated and related to older persons that do not take the necessary measures to stay healthy or take time to care for themselves or to take the time to take care of themselves. The items of this factor were reversed scored as instructed by the developers of the ASA-A (see Appendix H). The high loadings of the items on this factor indicated that the older person takes the necessary measures and make the necessary changes to stay healthy. The Cronbach's alpha of these items was an acceptable .63 (Field, 2005:668). The second factor was labelled *Physical ability to care for self*. Items loaded onto this factor was negatively stated and indicated that older persons have some type of deficit (for example tiredness, movement or sleep) in order to care for themselves. Since items was reverse scored as instructed by the developers of the ASA-A (see Appendix H), it means that the older person do have the ability to care for self. The items on factor two had a moderately high Cronbach's alpha of .76. The third factor was labelled *Ability to perform therapeutic self-care demands* owing to the fact that the older person is able to make sure that his personal hygiene is up to standard and that he is aware of the hygiene of his environment. These activities maintain and promote health as well as prevent diseases from developing. These items had an acceptable Cronbach's alpha of .54 (Maree *et al.*, 2008:215-216). The fourth factor was labelled *Understand self-care* because the older person acts as self-care agent and also because the older person was able to take measures to ensure the safety for self and family. The older person had the ability to not only determine his/her own health status but also to ensure the self-care activities engaged in encouraging optimal health. Factor four's items had an acceptable Cronbach's alpha of .61 (Field, 2005:668). The fifth factor was labelled *Ability to perform self-care and integrate with self, family and community* because the older person was able to make the necessary changes when experiencing difficulty to move and was able to excuse himself from family and friends (community) when the need arose. These items had a very low Cronbach's alpha of .33. The sixth factor was labelled *Ability to acquire self-care knowledge* because in these items the older person was able (meaning: was empowered) to ask questions regarding health, drug management and physical examination of self. The older person would not have been able to do this if he was not empowered by health professionals regarding self-care, health and health care.

Item 9 did not fit with the factor, but is included because of its high load (Burns & Grove, 2005:491). Factor six's items had an acceptable Cronbach's alpha of .59 (Field, 2005:668). The seventh factor was labelled *Make self-care decisions* because the older person was able to care for self and when the older person had a self-care deficit he was able to seek help. These items had an acceptable Cronbach's alpha of .57 (Field, 2005:668). The eighth factor was labelled *Life-style changes to care for self* because the older person was able to make the necessary changes in life in order to care better for self. These items had an acceptable Cronbach's alpha of .60 (Field, 2005:668).

Table 4.5 indicates the factor analysis of the ESCA; the discussion regarding factor analysis follows below the table, and the discussion on reliability in Chapter 3 [3.3.5.2] should be kept in mind when looking at the Cronbach's alpha scores.

Table 4.5 Factor analysis of the ESCA

Factor	Component									
	1	2	3	4	5	6	7	8	9	10
Factor analysis	Make self-care decisions	Self-care	Self-esteem	Empowerment	Understand self-care	Ability to acquire self-care knowledge	Awareness of self as self-care agent	Valuing of health priorities	Responsibility for self	Ability to perform self-care activities and integrate self, family and community
8 I seek help when unable to care for myself.	.518			.331						
21 I do what I have decided to do.	.594									
26 I am a good friend to myself.	.756									
27 I take good care of myself.	.769									
23 I can only be good for others, if I am good to myself.	.460							.422		
14 I strive to better myself.	.381									
3* I am often too tired to look after my health the way I would like to.		.485		-.319						
6* I tend to neglect my personal needs.		.653								
10* I often put off doing things that I know would be good for me.		.766								
16* I complain about things that bother me without doing much about them.		.783							.308	
25* I rarely carry out the resolutions I make concerning my health.		.680								
28* I only try to promote my health when the opportunity arises.		.585								
2 I like myself.			.806							
7 I know my strong points.			.593		.349					
20 I deserve all the time and care it takes to maintain my health.			-.535					.469		
12 I make my own decisions.	.373		.521							

Exercise of self-care agency scale - Pattern Matrix^a

Factor	Component									
	1	2	3	4	5	6	7	8	9	10
Factor analysis	Make self-care decisions	Self-care	Self-esteem	Empowerment	Understand and self-care	Ability to acquire self-care knowledge	Awareness of self as self-care agent	Valuing of health priorities	Responsibility for self	Ability to perform self-care activities and integrate self, family and community
19 When I have a problem, I want the nurse/doctor to tell me what to do.				<u>.615</u>						
31 I enjoy life.				-.544			<u>.375</u>			
13 I perform certain activities to keep from getting sick.					<u>.803</u>					
15 I eat a balanced diet.					<u>.503</u>					
18 I think my health is very well.					<u>.604</u>					
22 I care to learn about my body and how it functions.						<u>.741</u>				
24 I understand my body and how it functions.	.356					<u>.402</u>				
30 I want to learn about diseases and how it influences me.						<u>.649</u>				
38 I want to learn all that I can about my body and how it functions.						<u>.577</u>	-.312			
17 I look for better ways to look after my health.							<u>.400</u>	-.355		
33 I take responsibility for my own actions.							<u>.547</u>			
40 I seek information to care for myself.							<u>.577</u>		.310	
41 I feel I am a valuable member of my family.							<u>.794</u>			
43 I understand myself and my needs pretty well.							<u>.654</u>			
36 Over the years I have noticed the things to do that make me feel better.								<u>.732</u>		
4 When my health feels weak, I know where to ask help.			-.384					<u>.465</u>		

Exercise of self-care agency scale - Pattern Matrix^a

Factor	Component									
	1	2	3	4	5	6	7	8	9	10
Factor analysis	Make self-care decisions	Self-care	Self-esteem	Empowerment	Understand self-care	Ability to acquire self-care knowledge	Awareness of self as self-care agent	Valuing of health priorities	Responsibility for self	Ability to perform self-care activities and integrate self, family and community
1 I would gladly give up some of my set ways if it meant improving my health.			-.479						<u>.617</u>	
42 I remember when I had my last health check and return on time for my next one.								-.305	<u>.553</u>	
5 I take pride in doing the things I need to, to stay healthy.			-.389							<u>.474</u>
32 I contribute to my family's functioning.										<u>.570</u>
37 I know what foods to eat to keep me healthy.										<u>.550</u>
35 I can usually tell that I am coming down with something days before I get sick.										<u>.471</u>
Cronbach's alpha	.81	.76	.69		.53	.77	.78	.75	.40	.59

* Questions were reversed scored according to developers (Kearney & Fleischer, 1979) (see Appendix J)

- **Discussion on factor analysis of ESCA**

The first factor was labelled *Make self-care decisions* because the items loaded on this factor, indicate that the older person cared for self and saw self as a friend; these items also indicated that the older person cared for self, helped self and cared for self by being adamant in decisions regarding self in order to better self. This factor had a very high Cronbach's alpha of .81 (Maree *et al.*, 2008:215-216). The second factor was labelled *Self-care*, items loaded on this factor related to the older person neglecting personal needs and do not do very much to change circumstances to care for own health, but questions on this factor was reversed scored as instructed by the developers of the ESCA (Kearney & Fleisher, 1979, see Appendix J) indicating that the older person is not neglecting self and are doing things in their circumstances to change health as the items had a high loading on the factor. Items on this factor had a moderately high Cronbach's alpha of .76 (Maree *et al.*, 2008:215-216). The third factor was labelled *Self-esteem*, because the items stated that the older person knew self, knew personal strong points; therefore, was able to make own decisions. Factor three's items had an acceptable Cronbach's alpha of .69 (Field, 2005:668). The fourth factor was labelled *Empowerment*. The item loaded on this referred to the older person that took charge of own health, by empowering self by seeing a nurse or doctor when there was a problem. The fifth factor was labelled *Understand self-care* because the items loaded on this factor showed that the older person engaged in activities to keep optimal health, as well as had the capability to know what was healthy or not, as well as knew how to change lifestyles to be healthy. These items had an acceptable Cronbach's alpha of .53 (Field, 2005:668). The sixth factor was labelled *Ability to acquire self-care knowledge*. Items loaded on this factor indicate that the older person cared and wanted to learn about his/her body and how it functions, and how diseases influence them. Factor six's items had a moderately high Cronbach's alpha of .75 (Maree *et al.*, 2008:215-216). The seventh factor was labelled *Awareness of self as self-care agent* and includes items such as taking responsibility; seek information and knowledge to care for self and needs. These items had a moderately high Cronbach's alpha of .78. The eighth factor was labelled *Valuing of health priorities* because the older person acknowledged the importance to care for self and lifestyle as well as to seek health care when necessary, because the older person enjoyed life and would like to maintain that. Items on this factor scored a moderately high Cronbach's alpha of .75. The ninth factor was labelled *Responsibility for self*. The items loaded on this factor, indicated that the older person took

responsibility to improve life by changing lifestyles and remember appointments with health professionals. These factor's items had a very low Cronbach's alpha of .40. The tenth factor was labelled *Ability to perform self-care activities and integrate self, family and community*, because the older person was able to engage in family functioning and able to not only apply self-care for a healthy lifestyle and know when sickness was on the way but also looked out for health deviation. These items had a moderately high Cronbach's alpha of .78 (Maree *et al.*, 2008:215-216).

4.2.2.1 Conclusion statements of factor analysis of ASA-A and ESCA

- ASA-A and ESCA had a very good correlation (relationship) during factor analysis, enabling the researcher to label five of the factors with the same label.
- The factors labelled *Ability to perform self-care activities and integrate self, family and community* in the ASA-A had a very low Cronbach's alpha of .33 whereas the ESCA factor that had the same name had a Cronbach's alpha of .59.
- The factors labelled *Self-care* in the ASA-A had a Cronbach's alpha of .63 whereas the ESCA factor labelled with the same name scored a high Cronbach's of .76.
- The factors labelled *Understand self-care* had a Cronbach's alpha of .61, and the factor labelled with the same name had a Cronbach's alpha of .53.
- The factors labelled *Ability to acquire self-care knowledge* had a Cronbach's alpha of .59 whereas the factor labelled with the same name in the ESCA had a Cronbach's alpha of .77.
- The factors labelled in the factor *Make self-care decisions* had a Cronbach's alpha of .57 in the ASA-A and a very high Cronbach's alpha of .81 in the ESCA.
- In the Cronbach's alpha of the factors labelled the same in the ASA-A and ESCA, the ESCA's Cronbach's alpha was always higher, except for the factor labelled *Understand self-care*. Here the ASA-A Cronbach's alpha was higher.

- **Mean analysis of factors**

Firstly, the mean analysis of the ASA-A, and secondly, the ESCA were done. The mean is the value obtained by summing all the scores and dividing that total by the number of scores being summed (Burns & Grove, 2005:742); this was done to determine the average of the factors.

Table 4.6: Mean analysis of factors of the ASA-A

Factor number	Factor name	Mean
ASA-A		55.1804
ASA-A Factor 1	Self-care	2.0486
ASA-A Factor 2	Physical ability to care for self	1.9635
ASA-A Factor 3	Ability to perform therapeutic self-care demands	2.8099
ASA-A Factor 4	Understand self-care	2.6541
ASA-A Factor 5	Ability to perform self-care and integrate with self, family and community	Not reliable
ASA-A Factor 6	Ability to acquire self-care knowledge	2.3316
ASA-A Factor 7	Make self-care decisions	2.7297
ASA-A Factor 8	Lifestyle changes to care for self	2.6406

The ASA-A items were marked on the following Likert scale:

- 1 Disagree (*Negative*)
- 2 Neither Agree or Disagree (*Neither negative nor positive*)
- 3 Agree (*Positive*)

The mean of the ASA-A factor 1 (2.05) indicated that the older persons neither agree nor disagree on factor 1 labelled *self-care*. The mean of factor 2 (1.96) also indicated that the older person do not totally agree or disagree whether they had a *physical ability to care for*

self. The mean of factor 3 (2.81) indicated that the older persons had a very good *awareness of self as self-care agent*. According to the mean of factor 4 (2.65), the older person *understands self-care*. Factor 6 was labelled *ability to acquire self-care knowledge* and according to the mean of (2.33), the older population felt that they have a relative *ability to acquire self-care knowledge*. According to the mean of (2.73) of factor 7, the older person has the ability to *make self-care decisions* as well as has the *ability to change lifestyle to care for self* as the mean (2.64) of factor 8 indicated so.

Table 4.7: Mean analysis of factors of the ESCA

Factor number	Factor name	Mean
ESCA		54.8731
ESCA Factor 1	Make self-care decisions	1.2510
ESCA Factor 2	Self-care	1.9380
ESCA Factor 3	Self-esteem	1.2609
ESCA Factor 4	Empowerment	Not reliable
ESCA Factor 5	Understand self-care	1.7295
ESCA Factor 6	Ability to acquire self-care knowledge	1.3735
ESCA Factor 7	Awareness of self as self-care agent	1.2696
ESCA Factor 8	Valuing of health priorities	1.3422
ESCA Factor 9	Responsibility for self	Not reliable
ESCA Factor 10	Ability to perform self-care activities and integrate self, family and community	1.4149

The ESCA items were marked on the following Likert scale:

- 1 Very characteristic (*Positive*)
- 2 No opinion (*Neither negative nor positive*)
- 3 Very uncharacteristic (*Negative*)

The mean of the factors of the ESCA factor 1 was 1.25, indicating that the older person is able to *make self-care decisions*. Factor two's (2) mean was 1.94 indicating that, on average, older persons had no opinion with regard to *self-care*. The same was with the factor 1 labelled *self-neglect* in the ASA-A. According to the mean of factor 3 (1.26), most of the older persons have a good *self-esteem*. Factor five's (5) mean (1.73) indicated that many of the older persons relatively *understand self-care* and as indicated by the mean of factor 6 (1.37), the older persons have a relative *ability to acquire self-care knowledge*. Factor 7 labelled *awareness of self as self-care agent's* mean was 1.27, indicating that the older person was aware of self as self-care agent. The mean (1.34) of factor 8 labelled *valuing of health priorities* indicated that the studied older population values health priorities. The mean of factor 10 (1.41) labelled *ability to perform self-care activities and integrate self, family and community* indicated that the older person see self as having a relative ability to perform self-care activities and integrate self, family and community.

4.2.2.2 Conclusion statements of mean analysis of factors of the ASA-A and ESCA

- Mean analysis of the factor labelled *Make self-care decisions* of the ASA-A (2.73) and of the ESCA (1.25) indicated that the older person feels able to *make self-care decisions*.
- The mean analysis of the factor labelled *Self-care* of the ASA-A (2.05) and ESCA (1.94) indicated the older persons had neither agreed nor disagreed / had no opinion on the factor labelled *self-care*.
- In the mean analysis of the factor labelled *Understand self-care* of both the ASA-A (2.65) and ESCA (1.73), the ASA-A indicated that many of the older persons understood self-care, but of the ESCA indicated that the older person is closer to no opinion.
- Mean analysis of the factor *Ability to acquire self-care knowledge* of the ASA-A (2.33) and ESCA (1.37) indicated that the older person, according to the ASA-A, has a relative *ability to acquire self-care knowledge*, but a better ability in the ESCA.
- Mean analysis of the factor *Physical ability to care for self* of the ASA-A (1.96) indicated that the older person neither agreed nor disagreed on having the physical ability to care for self.
- Mean analysis of the factor *Ability to perform therapeutic self-care demands* of the ASA-A (2.81) indicated that the older persons felt that they have the *ability to perform therapeutic self-care demands*.

- The mean analysis of the ASA-A factor labelled *lifestyle changes to care for self* (2.64) indicated that the older person feels they have the *ability to change lifestyle for self*.
- Mean analysis of factor in the ESCA (1.27) labelled *Awareness of self as self-care agent* indicated that the older persons feel they have a very good *awareness of self as self-care agent*.
- The mean analysis of both the factors of the ESCA labelled *Ability to perform self-care activities and integrate with self, family and community* (1.41) and *Valuing of health priorities* (1.34) indicated that the older persons felt they have the *ability to perform self-care activities and integrate with self, family and community* and *value health priorities*.

- **Correlational analysis**

In this study, Pearson correlation coefficient was used compare the ASA-A with the ESCA.

According to Maree *et al.*, (2008:236), the Pearson correlation coefficient used in this study has the following characteristics:

- Pearson correlation coefficient is generally denoted by (*r*).
- Maximum is +1 and the minimum is -1.
- The (-) indicates a negative relationship between the variables as seen in this study and the (+) indicates a positive relationship between the variables.
- Relationships are strong when values are close to -1 and +1 respectively.
- Values close to 0 indicate a poor relationship between the variables.
- A value of -1 indicates a perfect negative relationship and value of +1 indicates a perfect positive relationship.

Table 4.8 Correlation between ASA-A and ESCA

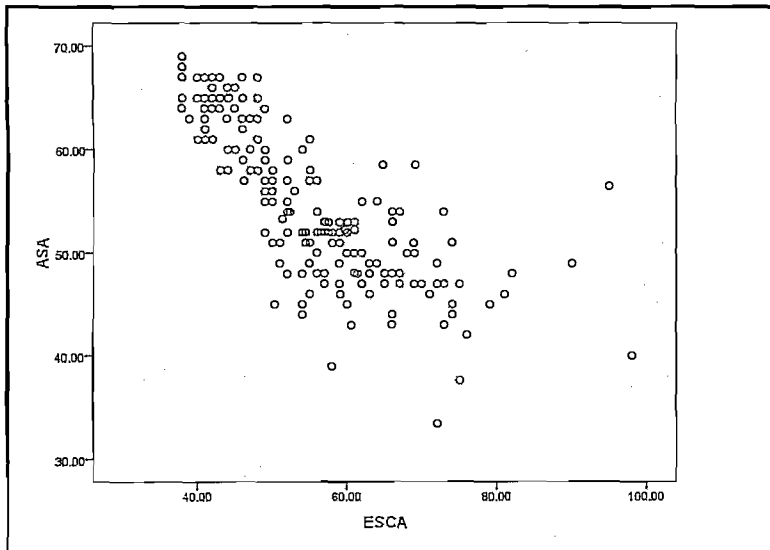
		ASA-A	ESCA
ASA	Pearson correlation	1.000	-.791**
	Sig. (2-tailed)		.000
	N	192.000	192
ESCA	Pearson correlation	-.791**	1.000
	Sig. (2-tailed)	.000	
	N	192	192.000

** Statistically significant on 1% level of significance.

* Statistically significant on 5% level of significance.

The above table as well as Scatter plot diagram 4.1 (see below) indicates a very strong negative relationship between the ASA and ESCA ($r = -.791$); this means that the ASA-A and the ESCA have practical significant correlation; in other words, association with each other. According to Maree *et al.*, (2008:235), a scatter plot is the best manner to indicate a relationship between two variables, in this study the ASA-A and ESCA. The scatter plot diagram indicates a very strong negative relationship, because the low marks on the one questionnaire correspond with the high marks on the other questionnaire and vice versa.

Diagram 4.1 Scatter plot correlation between the ASA-A and ESCA



Factor 5 of the ASA-A and factor 4 and factor 9 of the ESCA were not correlated, because these were not reliable as indicated during the mean analysis of factors.

Table 4.9 Correlational analysis of the ASA-A and ESCA

Correlational analysis

Factor		ASA	ESCA	FE1	FE2	FE3	FE5	FE6	FE7	FE8	FE10	FA1	FA2	FA3	FA4	FA6	FA7	FA8
FE1	ASA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ECSCA	-.791**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FE2	Make self-care decisions	-.464**	.702**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Self-care	-.507**	.409**	-.027	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FE3	Self-esteem	.000	.666**	.503**	.084	-	-	-	-	-	-	-	-	-	-	-	-	-
FE5	Understand self-care	-.446**	.475**	.189**	.113	.187**	-	-	-	-	-	-	-	-	-	-	-	-
FE6	Ability to acquire self-care	-.551**	.737**	.510**	.176*	.417**	.299**	-	-	-	-	-	-	-	-	-	-	-
FE7	knowledge Awareness of self as self-care agent	-.487**	.739**	.614**	.032	.468**	.239**	.537**	-	-	-	-	-	-	-	-	-	-
FE8	Valuing of health priorities	-.487**	.715**	.508**	.045	.572**	.267**	.462**	.507**	-	-	-	-	-	-	-	-	-
FE10	Ability to perform self-care activities and integrate self, family and community	-.594**	.712**	.516**	.097	.412**	.333**	.524**	.567**	.493**	-	-	-	-	-	-	-	-
FA1	Self-care	.650*	-.584**	-.357**	-.534**	-.378**	-.156*	-.308**	-.297**	-.401**	-.408**	-	-	-	-	-	-	-
FA2	Physical ability to care for self	.642**	-.546**	-.244**	-.608**	-.316**	-.272**	-.333**	-.290**	-.230**	-.266**	.526**	-	-	-	-	-	-
FA3	Ability to perform therapeutic self-care demands	.491**	-.424**	-.248**	-.066	-.266**	-.156*	-.377**	-.410**	-.365**	-.397**	.282**	.203**	-	-	-	-	-

Table 4.9 Correlational analysis of the ASA-A and ESCA (continued)

Factor		ASA	ESCA	FE1	FE2	FE3	FE5	FE6	FE7	FE8	FE10	FA1	FA2	FA3	FA4	FA6	FA7	FA8
FA4	Understand self-care	.536**	-.492**	-.434**	-.213**	-.271**	-.148*	-.377**	-.312**	-.323**	-.478**	.262**	.237**	.214**	-	-	-	-
FA6	Ability to acquire self-care	.612**	-.515**	-.307**	-.155*	-.186**	-.571**	-.430**	-.362**	-.315**	-.346**	.162*	.139	.257**	.347**	-	-	-
FA7	knowledge Make self-care decisions	.433**	-.432**	-.394**	-.062	-.362**	-.131	-.284**	-.346**	-.369**	-.349**	.231**	.064	.070	.206**	.315**	-	-
FA 8	Lifestyle changes to care for self	.604**	-.413**	-.228**	-.107	-.308**	-.273**	-.290**	-.327**	-.286**	-.427**	.181*	.137	.344**	.211**	.351**	.262**	-

** Statistically significant on 1% level of significance.

* Statistically significant on 5% level of significance.

The negative relationship was of special interest to the study, because the ASA-A measured from negative to positive and the ESCA measured from positive to negative as indicated below.

The ASA-A was marked:

- 1 Disagree (*Negative*)
- 2 Neither Agree or Disagree (*Neither negative nor positive*)
- 3 Agree (*Positive*)

Whereas the ESCA was marked:

- 1 Very characteristic (*Positive*)
- 2 No opinion (*Neither negative nor positive*)
- 3 Very uncharacteristic (*Negative*)

The results in Table 4.9 indicate that the correlations of all ESCA subscales (factors) with the total of the ASA-A subscales (factors). When the practical significance was ($r \approx 0,5$ or larger) it indicated that there was an important association between the ASA-A and ESCA and vice versa.

The first factor of the ASA-A was labelled *Self-care*. This factor and different factors of the ESCA had significant associations that included factor 2, also labelled *Self-care* ($r = -.534$), factor 8, labelled *Valuing of health priorities* ($r = -.401$) and factor 10 with a practical significant association of ($r = -.408$).

Factor 2 of the ASA-A labelled *Physical ability to care for self* had a significant association ($r = -.608$) with factor 2 labelled *Self-care* in the ESCA.

The third factor of the ASA-A was labelled *Ability to perform therapeutic self-care demands* and had a significant association with various factors of the ESCA, which includes factor 6 labelled *Ability to acquire self-care knowledge* ($r = -.377$). Factor 7 also labelled *Awareness of self as self-care agent* ($r = -.410$) and factor 10 labelled *Ability to perform self-care activities and integrate self, family and community* ($r = -.397$).

Factor 4 of the ASA-A labelled *Understand self-care* had significant associations with different factors in the ESCA, which included factor 1, *Make self-care decisions* ($r = -.434$),

factor 6 labelled *Ability to acquire self-care knowledge* ($r = -.377$) and factor 10 labelled *Ability to perform self-care activities and integrate with self, family and community* ($r = -.478$).

The sixth factor of the ASA-A was labelled *Ability to acquire self-care knowledge* and had a significant association with two factors in the ESCA, which included factor 5 labelled *Understand self-care* ($r = -.571$) and factor 6, which was also labelled *Ability to acquire self-care knowledge* ($r = -.430$).

Factor 7 of the ASA-A was labelled *Make self-care decisions* and had a significant association with one factor of the ESCA, namely factor 1, also labelled *Make self-care decisions* ($r = -.394$).

Factor 8 of the ASA-A was labelled *Lifestyle changes to care for self* and had a significant association with three factors in the ESCA, which included factor 3 labelled *Self-esteem* ($r = -.308$), factor 7 labelled *Awareness of self as self-care agent* ($r = -.327$) and factor 10 labelled *Ability to perform self-care activities and integrate with self, family and community* ($r = -.427$).

Factor 10 of the ESCA was labelled *Ability to perform self-care activities and integrate with self, family and community* and had a significant association with six factors of the ASA-A namely, factor 1 labelled *Self-care* ($r = -.408$), factor 3 labelled *Ability to perform therapeutic self-care demands* ($r = -.397$), factor 4 labelled *Understand self-care* ($r = -.478$), factor 6 labelled *Ability to acquire self-care knowledge* ($r = -.346$), factor 7 labelled *Make self-care decisions* ($r = -.349$) and, lastly, factor 8, *Lifestyle changes to care for self* ($r = -.427$).

- **Results of hypothesis**

Hypothesis 0: There is no correlation between the ASA-A and ESCA.

This hypothesis was rejected, because after correlational analysis, there was a strong negative relationship between the ASA-A and ESCA.

Hypothesis 1: There is a positive correlation between the ASA-A and ESCA.

Hypothesis 1 was rejected, because there is not a positive but a negative correlation between the ASA-A and ESCA.

Hypothesis 2: There is a negative correlation between the ASA-A and ESCA.

This hypothesis was accepted, because there is a very strong relationship of ($r = -7.91$) between ASA-A and ESCA (see table [4.8]).

4.2.2.3 Conclusion statement of correlational analysis of the ASA-A and ESCA

- Factor 1 of the ASA had significant associations with ESCA, which included factors labelled *Self-care* and *Valuing of health priorities*.
- The second factor of the ASA-A labelled *Physical ability to care for self* had a significant association with factor 2 also labelled *Self-care* in the ESCA.
- Factor 3 of the ASA-A was labelled *Ability to perform therapeutic self-care demands* and had a significant association with various factors of the ESCA, which included *Ability to acquire self-care knowledge*, *Awareness of self as self-care agent (labelled the same)* and *Ability to perform self-care activities and integrate self, family and community*.
- The fourth factor of the ASA-A was labelled *Understand self-care*, had a significant association with different factors in the ESCA, which included *Make self-care decisions*, *Ability to acquire self-care knowledge* and *Ability to perform self-care activities and integrate with self, family and community*.
- The sixth factor of the ASA-A was labelled *Ability to acquire self-care knowledge* and had a significant association with two factors in the ESCA, which included *Understand self-care* and also *Ability to acquire self-care knowledge*.
- Factor 7 of the ASA-A was labelled *Make self-care decisions* and with factor 1 of the ESCA, labelled *Make self-care decisions*.
- Factor 8 of the ASA-A was labelled *Lifestyle changes to care for self* and had a significant association with three factors in the ESCA, which included factors *Self-esteem*, *Awareness of self as self-care agent* and *Ability to perform self-care activities and integrate with self, family and community*.

- Factor 10 of the ESCA was labelled *Ability to perform self-care activities and integrate with self, family and community* and had a significant association with factors of the ASA-A namely *Self-care, Ability to perform therapeutic self-care demands, Understand self-care, Ability to acquire self-care knowledge, Make self-care decisions* and *Lifestyle changes to care for self*.

4.3 RELIABILITY AND VALIDITY

Table 4.10 Cronbach's coefficient alpha of the ASA-A

Cronbach's coefficient alpha of ASA-A	
Variables	Alpha
Raw	0.782076
Standardised	0.793291

Reliability of the ASA-A. Item 11 had a negative correlation with the total, because the question was formulated in a complicated manner in relation to the other items. For that reason, item 11 was removed (see chapter 3 [3.3.5.2]). Item 3 had a low load, but was retained, because the researcher and statistician could not find a problem with how the question was formulated. The Cronbach Alpha of the ASA-A was .79.

Table 4.11 Cronbach's Coefficient alpha of the ESCA

Cronbach's coefficient alpha of ESCA	
Variables	Alpha
Raw	0.868316
Standardized	0.893155

Reliability of the ESCA. In the ESCA the researcher and statistician removed five items, which included items 9, 11, 29, 34 and 39 (see chapter 3 [3.3.5.2]). Correlation of items with the total should be higher than .3, if the correlation was lower or complicatedly phrased, the item was removed. The Cronbach's alpha for ESCA was .89.

4.4 CHAPTER SUMMARY

The researcher determined self-care of the studied older persons by interpretation of descriptive statistics. During the interpretation, seven self-care deficits came to the fore (see [4.2.1.1]). The seven self-care deficits, the literature review conducted in chapter 1 as well as Menon's psychological health empowerment model made the overarching aim of this study possible (development of guidelines to enhance self-care amongst older persons of the Potchefstroom district) (see chapter 5 [5.2]). In order to reach objective 3 of this study, the researcher used inferential statistics, which consisted of factor, mean and correlational analyses. *The researcher did not include the factor, mean and correlational analyses' conclusion statements in chapter 5 [5.2] as basis for the development of the guidelines to facilitate self-care amongst older person.* The factor, mean and correlational analyses were used to determine the relationship between the ASA-A and ESCA. In order to do a correlational analysis the researcher correlated the factors identified during factor analysis. These factors had a good correlation because items in both the ASA-A and ESCA were so closely related, some factors were labelled with the same name. The correlational analysis led to the conclusion that either the ASA-A or the ESCA could be used to examine self-care of a person as the high negative value ($r = -.791$) indicated a very strong negative correlation (relationship) between the ASA-A and ESCA as the value was very close to -1. However, the ESCA had a higher Cronbach's alpha than the ASA-A indicating a higher validity and reliability.

CHAPTER 5

GUIDELINES TO FACILITATE SELF-CARE AMONGST OLDER PERSONS IN THE POTCHEFSTROOM DISTRICT; EVALUATION OF THE STUDY; LIMITATIONS AND RECOMMENDATIONS FOR PRACTICE, EDUCATION AND RESEARCH (Phase 2: Step 4)

5.1 INTRODUCTION

In the previous chapter, the results of the data analysis, which consisted of descriptive and inferential statistics, were discussed. In this chapter, the overarching aim of this study was reached after development of guidelines to facilitate self-care amongst older persons in the Potchefstroom district. These guidelines were developed based the literature review conducted, self-care deficits identified based on Dorothea Orem's self-care deficit theory of nursing and Menon's psychological health empowerment model. Thereafter the evaluation of the study, limitations and recommendations for practice, education and research of this study were discussed.

Table 5.1: Structure of research project indicating Step 4

Phase 1: Compilation of evidence regarding self-care of the older person in the Potchefstroom district for the development of guidelines to facilitate self-care for older persons in the Potchefstroom district	
Objectives	
Objective 1: Conduct a literature review to understand self-care and related constructs from a theoretical perspective	Step 1: Explore and describe the literature to understand self-care and related constructs
Objective 2: Assess the self-care of older persons living in the Potchefstroom district	Step 2: Explore and describe the self-care agency of the older person in the Potchefstroom district
Objective 3: Correlate the ASA-A and the ESCA	Step 3: Determine the relationship between the ASA-A and ESCA
Phase 2: Development of guidelines	
Overarching aim	
Aim: Develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district	Step 4: Formulation of self-care guidelines

In order to reach the overarching aim of the study the researcher firstly conducted a literature review to understand self-care and related constructs from a theoretical point of view (objective 1). Thereafter the researcher assessed self-care of the older persons in the Potchefstroom district by utilising and analysing the ASA-A and ESCA based on Dorothea Orem's self-care deficit theory of nursing (see chapter 1 [1.4.2] and 2 [2.2.6]), reaching objective 2. After data analysis, the researcher obtained descriptive and inferential statistics. The descriptive data obtained facilitated the identification of self-care deficits. These identified self-care deficits, as well as Menon's psychological health empowerment model (see chapter 2 [2.7] and 3 [3.3.4.3]), together with the literature review conducted on self-care and related constructs facilitated inductive reasoning to develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district. The researcher also correlated the ASA-A and ESCA by using inferential statistics, to determine the relationship

between these questionnaires (objective 3), but the data obtained from the inferential statistics were not used as evidence (conclusion statements) in the development of the guidelines.

Table 5.2 (below) is the summary of the evidence used to formulate the self-care guidelines. This evidence is based on the literature review conducted on self-care and related constructs in chapter 2 and the self-care deficits identified in chapter 4.

Table 5.2 Summary of conclusion statements (evidence) from the literature review in chapter 2 (step 1) and self-care deficits identified in chapter 4 (step 2)

CONCLUSION STATEMENTS OF STEP 1	
Conclusion statements regarding self-care	
1.	Self-care encompasses the concepts self-care agent, self-care agency and self-care deficit.
2.	The term self-care means deliberate actions the older persons engage in to maintain health, through disease prevention of disease, assessment of symptoms and reinstatement of optimal health where there is a health limitation.
3.	Self-care should be encouraged by professional nurses as self-care forms part of the blueprint of health promotion in community development of lower income countries. It alleviates health care demands and lowers health care costs.
Conclusion statements regarding self-care agency	
4.	Self-care agency is the capability and power older persons have to engage in self-care activities and are dependent on the power that older persons have to make deliberate decisions regarding self-care.
5.	Capability and power vary according to age, health status, education, life experiences and cultural influences and are developed and managed through learning.
6.	The older persons engaging in self-care agency address three types of needs namely universal needs, developmental needs and health deviation needs.

Conclusion statement regarding self-care agent	
7.	The self-care agent is the older person engaging in self-care activities.
Conclusion statement regarding self-care deficit	
8.	Self-care deficit is present when there is a lack of engagement in self-care requisites, limited awareness of self and environment, a lack of ability to remember past experiences, no ability to make self-care decisions due to a lack of knowledge or unawareness of internal and external circumstances, impaired execution of self-care actions and not having specialised knowledge and skills needed for self-care.
Conclusion statements regarding self-care support groups	
9.	Self-care support is a service that professional nurses provide to support and empower the older person by providing health education, small discussions and technology to improve quality of life and self-care.
10.	Older persons living in the community are less likely to apply learned self-care skills if there is no form of support. Therefore, support (in this study in the form of self-care support groups) is imperative for self-care compliance to improvement of quality of life. These groups must be conducted in an organised and relaxed atmosphere in order to alleviate uncertainty and anxiousness regarding health.
11.	Professional nurses conducting health education in self-care support groups should give the older persons a sense of security, especially when using the storytelling technique when the older persons' literacy levels are low.
Conclusion statements regarding Dorothea Orem's self-care deficit theory of nursing	
12.	The theory of self-care consists of universal, developmental and health deviation self-care. The theory of self-care deficit consists of self-care deficit and therapeutic self-care demands; and lastly, the theory of nursing systems consists of wholly compensatory, partly compensatory and supportive educative systems.
13.	The older person is dependent on self, responsible for self-care and should be encouraged to maintain and take responsibility for his own health.
14.	Self-care is a continuous process the older person has to engage in to promote health. Health depends on physical, psychological, interpersonal and social aspects

that interrelate with each other in self-care.

Conclusion statements regarding the older person

BODY

15. Each person has a body, mind and spirit. The physical body, strength and health are affected by the ageing process, which could in turn affect the mind and spirit of the older person and vice versa.
16. Ageing does not only cause "maturation and senescence of biological systems", which means progressive weakening of body systems, but is also a life process that everyone experiences at different time, and for different lengths. Ageing increases the risk of self-care deficits and death as a person ages, because a person is more prone to suffer from chronic disease and physical impairment.
17. Senescence not only causes somatic changes but also economic and health problems which, in turn, causes isolation.
18. Physical deterioration causes functional limitations, which include decreased energy level and sleep deprivation. Energy levels are enhanced by dietary intake and exercise, and sleep deprivation is resolved by exercise and non-drug management interventions.
19. The older person needs exercise, rest and self-care programmes as well as time management skills to effectively care for self.

MIND

- **Social**

20. Social support has a very good relationship with quality of life, because social health is subjective to the interrelationship between physical, psychological and social factors.
21. Older persons are affected by retirement, health problems, loss of relatives and friends, causing potential isolation. Therefore, the importance of support given to older persons (in this study through self-care support groups) will have a very important effect on the health of the older persons.
22. Support increases physical and psychological wellbeing as well as health and

acceptance of circumstances, enabling the older persons to have a positive outlook on life.

- **Psychological**

23. Psychological wellbeing of the older persons and social support for the older persons positively influence physical health; increasing quality of life.
24. Ageing has a psychological effect on older persons, because older persons are subjected to retirement, decreased income, changes in social relationships, physical body and health changes as well as the death of loved ones.
25. Acceptance is linked to psychological health, because acceptance leads to positive thought and allows a person to enjoy different experiences.

SPIRITUAL

26. There is a strong relationship between psychosocial and physical health, and spiritual commitment in the older persons, because the older persons become more active in spiritual activities, as spiritual activities support coping.
27. Spiritual growth influences the older persons' self-care agency (self-care capability and power), since older persons who are routinely involved in spiritual practices, have better initiative and responsibility to care for the self.
28. Spiritual actions and attitudes are associated with social support (in this study self-care support groups). Spirituality increase psychological and physical health to an extent. Therefore, religion is a very important coping mechanism and prime motivational aspect in older persons' lives.

Conclusion statements on the older persons income

29. The majority of older persons in South Africa are dependent on the social grant of R1,010 from the state called old-age pension, which is not sufficient for the older persons to care for self. The large number of older persons depending on this social grant is due to high unemployment rates, illiteracy as well as poor employment opportunities of the older persons as young adults.
30. High demand on older persons' income is due poor income, high cost of old-age homes, and many older persons that act as caregivers for children, making an

average of three persons dependent on the old-age pension.

31. The social health system, with reference to old-age pension, is influenced by corruption, incompetent staff at pay-out points, poor facilities, security and theft influencing the channels of pension money contributed to older persons.

Conclusion statements regarding health care costs

32. Older persons have three options in health care namely, PHC, private practitioners and hospitals (private or public).
33. South Africa has two types of funding and provision environments, namely the private sector that serves $\pm 20\%$ of the population and the public sector serving 80% of the population.
34. The lower a person's income the more likely self-care is applied; therefore, self-care should be especially implemented in lower income groups as a strategy to ensure quality of life.
35. The health care system needs to change by supporting autonomy in older persons, which will result in a decrease in the professional help needed.

Conclusion statements regarding unintentional self-neglect

36. Although professional nurses are confronted by unintentional self-neglect of older persons on a continuous basis, little is done at PHC level to communicate and organise application of self-care.
37. Older persons do not have knowledge about their conditions to make self-care decisions. They only have a primary level of education, which disables them to search, find and read information about self-care. This in turn might lead to unintentional self-neglect.
38. Older persons only do not have knowledge about their conditions to make self-care decisions, and only have primary level of education, disabling them to search, find and read information about self-care, causing potential unintentional self-neglect.

Conclusion statements regarding health promotion	
39.	Health promotion is defined as a course of actions undertaken to enable individuals to promote health on a body, mind and spiritual level.
40.	Health promotion is seen as a concept in practice and health education as the strategy and basis for health promotion in lower socio-economic communities.
41.	Health education does not take place due to, limited education, time restrictions, limited resources, support and overcrowded clinics
42.	Professional nurses are in the best position to empower and promote health, since they are in the position to teach self-care to older persons. Professional nurses should encourage the older person to use the “bottom-up” approach.
Conclusion statements regarding empowerment	
43.	Health is promoted through empowerment, as it provides the older persons self-confidence and power to control their health.
44.	Empowerment is achieved when professional nurses provides information and skills, to older persons enabling them to make autonomous decisions.
45.	Health education is a form of empowerment and contributes to autonomy, as a person is able to participate knowingly in decisions regarding self-care.
46.	Menon’s model of psychological health empowerment (as adapted for this study) has three interactive elements namely, the public health sector, professional nurses and older persons.
Conclusion statements regarding autonomy	
47.	Autonomy means independence in decision-making regarding self-care and independence is compromised when there are limitations in autonomy.
48.	When there is a limitation in autonomy due to a lack of knowledge, the professional nurse should increase autonomy through health education in self-care support groups.
49.	The older persons have a right to information, in order to make autonomous

decisions regarding self-care, health and treatment. Many older persons have limited knowledge about their rights and entitlements regarding health care and should therefore become more aware of their rights to participate autonomously in health and self-care decision-making.

Conclusion statements regarding quality of life

- 50. Quality of life is an indefinable, personal perception of a person's lived experience as well as its quality.
- 51. The ultimate goal of nursing is to enhance quality of life in a holistic way.
- 52. Quality of life as well as life expectancy is enhanced through the improvement of/and promotion of health.

Conclusion statements of identified self-care deficits identified in the ASA-A and ESCA

- 53. The older person has a deficit in time management skills, affecting self-care.
(ASA-A: Items 20 and 23
ESCA: Items 20 and 25)
- 54. The older person has energy deficit, affecting self-care.
(ASA-A: Items 6, 9 and 13
ESCA: Items 3, 15 and 37)
- 55. The older person has a sleep deprivation deficit.
(ASA-A: Items 6 and 13
ESCA: Item 3)
- 56. The older person has a **lack of knowledge** and **ability to acquire knowledge** with regard to health and self-care.
(ASA-A: Items 2, 5, 14 and 15 (Lack of knowledge)
ASA-A: Items 14, 15, 16, 21 and 22 (Lack of ability to acquire knowledge)
ESCA: Items 13, 24, 28 and 35 (Lack of knowledge)
ESCA: Items 4, 8, 17, 19, 22 and 40 (Lack of ability to acquire knowledge))
- 57. The older person has a lack of a rest, exercise and self-care programme.
(ASA-A: Items 11, 13 and 19)

ESCA: Items 25 and 29)

58. The older person has a self-care deficit caused by physical deterioration.

(ASA-A: Items 3 and 24

ESCA: 0 items)

59. The older person experiences a lack in the performance of activities to prevent/decrease self-care deficits.

(ASA-A: Items 1, 7, 9, 17, 18, 19 and 22

ESCA: Items 5, 6, 8, 10, 13, 15, 16, 17, 19, 22, 25, 28, 30, 33, 38, 39, 40 and 42)

Conclusion statements regarding the correlation between the ASA-A and ESCA

60. Factor 1 of the ASA had significant associations with ESCA, which included factors labelled *Self-care* and *Valuing of health priorities*.

61. The second factor of the ASA-A labelled *Physical ability to care for self* had a significant association with factor 2 also labelled *Self-care* in the ESCA.

62. Factor 3 of the ASA-A was labelled *Ability to perform therapeutic self-care demands* and had a significant association with various factors of the ESCA, which included *Ability to acquire self-care knowledge*, *Awareness of self as self-care agent (labelled the same)* and *Ability to perform self-care activities and integrate self, family and community*.

63. The fourth factor of the ASA-A was labelled *Understand self-care*, had a significant association with different factors in the ESCA, which included *Make self-care decisions*, *Ability to acquire self-care knowledge* and *Ability to perform self-care activities and integrate with self, family and community*.

64. The sixth factor of the ASA-A was labelled *Ability to acquire self-care knowledge* and had a significant association with two factors in the ESCA, which included *Understand self-care* and also *Ability to acquire self-care knowledge*.

66. Factor 7 of the ASA-A was labelled *Make self-care decisions* and with factor 1 of the ESCA, labelled *Make self-care decisions*.

67. Factor 8 of the ASA-A was labelled *Lifestyle changes to care for self* and had a significant association with three factors in the ESCA, which included factors *Self-esteem*, *Awareness of self as self-care agent* and *Ability to perform self-care activities and integrate with self, family and community*.

68. Factor 10 of the ESCA was labelled *Ability to perform self-care activities and integrate with self, family and community* and had a significant association with factors of the ASA-A namely *Self-care, Ability to perform therapeutic self-care demands, Understand self-care, Ability to acquire self-care knowledge, Make self-care decisions* and *Lifestyle changes to care for self*.

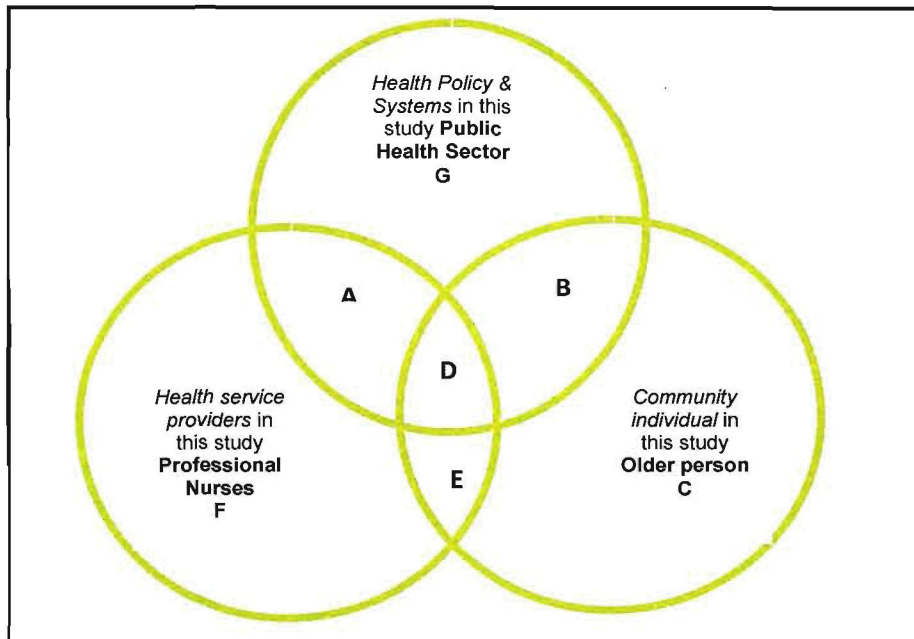
5.2 GUIDELINES TO FACILITATE SELF-CARE AMONGST OLDER PERSONS IN THE POTCHEFSTROOM DISTRICT

Based on the assessment of self-care based on Dorothea Orem's self-care deficit theory of nursing, Menon's psychological health empowerment model (see chapter 2 [2.7] and chapter 3 [3.3.4.3]), and the literature review conducted on self-care and related constructs, certain self-care deficits were identified that enabled the researcher to reach the overarching aim of this study (the develop of guidelines to facilitate self-care amongst older persons in the Potchefstroom district (see [5.2.1, 5.2.2 and 5.2.3])). In the context of this study, the aim was to indirectly empower the older persons staying in the peri-urban Potchefstroom district, by developing guidelines for the main role players/elements (public health sector, professional nurses and older persons) as identified by Menon's psychological health empowerment model.

In the following section, guidelines with regard to self-care are formulated for each of the three role players mentioned above. These three role players are interchangeably connected to one another, therefore influencing oneself, one another or both other role players.

Figure 5.2 (below) shows how the three role players are interchangeably connected.

Figure 5.1 Psychological health empowerment model (adapted from Menon, 2002:31)



The nine guidelines developed through deductive logic, as well as implementation of the recommendations (inductive logic), are now presented. During the reporting of the developed guidelines, the guideline was firstly presented, followed by implementation and lastly provided the evidence (conclusion statements) to support the developed guideline.

5.2.1 Public health sector

The **public health sector** plays an important role in both health care policy development and health promotion. Therefore the public health sector should support the *older person* and especially the *professional nurse* in the implementation and facilitation of self-care guidelines (see chapter 2 [2.6 and 2.7]).

GUIDELINE 1

Develop policies to support the facilitation done by professional nurses, support older persons in their learning and for the implementation of self-care provided in self-care support groups.

Implementation recommendations:

- Establish health policies focusing on self-care amongst older persons;
- Conduct and implement research programmes focusing on self-care amongst older persons, and adapt health care policies accordingly; and
- Establish health campaigns to address the lack of performance of self-care activities in order to prevent and/or decrease self-care deficits in older persons.

Evidence in support of this guideline

Conclusion statements: 8, 33, 34, 35, 36, 37, 41, 46, 49, 56, 59 and 61

GUIDELINE 2

Supply resources to implement self-care.

Implementation recommendations:

- Make provision in the budget to appoint and supply professional nurses who can take responsibility for the planning and execution of self-care support groups and self-care health campaigns;
- Distribution of self-care information brochures consisting of pictures, in order for illiterate older persons to understand them (for example, pictures of exercises, a watch indicating rest, exercise and self-care programme, and more);
- Supply environments (venues) for self-care support groups to take place; and

- Supply the professional nurses with transport to conduct self-care support groups at pension payout points (when applicable).

Evidence in support of this guideline

Conclusion statements: 3, 8, 9, 10, 11, 36, 37, 41, 42, 46, 49 and 56.

GUIDELINE 3

Support professional nurses and older persons participating in the self-care support groups.

- Initiate and support programmes focusing on health promotion of older persons in self-care support groups (see chapter 2 [2.6]);
- Launch and support health promotion campaigns facilitated by professional nurses focusing on self-care of older persons in self-care support groups;
- Support professional nurses facilitating older persons that have a lack of knowledge and ability to acquire knowledge with regard to health and self-care due to illiteracy (see chapter 2, table [2.2]);
- Support older persons (self-care agent) who attempts to address self-care deficiencies by participating in self-care support groups to acquire self-care and health knowledge, to increase quality of life;
- Support professional nurses in establishing the self-care support groups at pension payout points each month.

Evidence in support of this guideline

Conclusion statements: 3, 4, 8, 9, 10, 11, 12, 16, 20, 21, 22, 23, 34, 35, 36, 37, 41, 42, 43, 44, 45, 46, 49, 51, 52, 56, 58 and 59

5.2.2 Professional nurse

The **professional nurse** has a very important role in health promotion. In this study, the role is facilitator of self-care to older persons in self-care support groups. This role empowers the *older person* to make autonomous decisions, to improve his quality of life and quality of the *public health sector*, because the demand for health care and health care costs decreases.

GUIDELINE 4

Establish, facilitate and support self-care support groups as health promotion technique to ensure quality of life in older persons.

Implementation recommendations:

- Advertise self-care support groups for older persons in the clinic;
- Facilitate self-care support groups;
- Encourage and support self-care in older persons not only in self-care support groups but also during the consultation process;
- Do a survey among older persons to discover convenient times and dates to implement self-care support groups;
- Ensure a relaxed and safe environment for the older persons attending the self-care support groups (see chapter 2 [2.2.5]);
- Involve older persons to participate in the establishment of safe and relaxed environments for self-care support groups;
- Encourage the older persons to take ownership of the self-care support group;
- Support compliance in attendance of self-care support groups;
- Advocate compliance of self-care skills learned;
- Do home visits or involve other older persons in the community to support other older persons that are unable to attend self-care support groups; and
- Engage other members in the community to help facilitate the self-care support groups, for example, dieticians and physiotherapists.

Evidence in support of this guideline

Conclusion statements: 3, 8, 9, 10, 11, 12, 14, 36, 37, 39, 40, 41, 42, 51, 52 and 64.

GUIDELINE 5

Facilitate health education and support the older persons to engage in self-care activities to prevent/decrease self-care deficits to increase quality of life.

Implementation recommendations:

- Implement and facilitate health education, and support the older persons with regard to:
 - Time management skills (see chapter 2 [2.3.1.4]);
 - Energy deficit management (see chapter 2 [2.3.1.1]);
 - Sleep deprivation management (see chapter 2 [2.3.1.2]);
 - Rest, exercise and self-care programme (see chapter 2 [2.3.1.3]); and
 - Acceptance of physical deterioration (see chapter 2 [2.3.2.2]).

Evidence in support of this guideline

Conclusion statements: 2, 4, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 21, 22, 25, 37, 40, 41, 42, 45, 48, 52, 53, 54, 55, 57, 58 and 64.

GUIDELINE 6

Attend symposiums, conferences and workshops to be updated with the latest information available with regard to care (especially self-care) of older persons.

Implementation recommendations:

- Become members of societies/associations supporting older persons;
- Train and encourage other professional nurses on advocating self-care in older persons;
- Encourage other professional nurses to continuously attend symposiums, conferences and workshops to be updated with the latest information available with regard to care (especially self-care) of older persons; and
- Facilitate in-service training programmes focusing on self-care of older persons in self-care support groups.

Evidence in support of this guideline

Conclusion statements: 3, 9, 12, 35, 36, 42, 44, 49 and 51.

5.2.3 Older person

The **older person** has the role to promote personal health by implementing self-care skills facilitated by the *professional nurses* in the self-care support groups. This will not only decrease health care demands and health care costs on the *public health sector*, but will also improve the *older person's* quality of life.

GUIDELINE 7

Attend self-care support groups on a continuous basis.
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Implementation recommendations:

- Communicate with peers with regard to the most convenient time during the week to establish self-care support groups;

- Establish individual or communal transport. Communal transport could be established by organising public transport to collect all the older persons participating in the self-care support group before the group and returning them afterwards;
- Contact the church and ask if there are volunteers who are willing to transport older persons to the self-care support groups;
- Contact an organisation delivering voluntary services in the community to transport older persons to and from self-care support groups;
- Establish a rest, exercise and self-care programme to ensure that there is a scheduled time to attend the self-care support groups and to implement the acquired self-care skills (see chapter 2 [2.3.1.3]);
- Attend self-care support groups on scheduled times;
- Encourage peers to continuously attend self-care support groups;
- Participate actively in the self-care support groups, to prevent the lack in performance of activities preventing / decreasing self-care deficits; and
- Organise with the professional nurse to facilitate the self-care support group at the pension payout point each month, should there be transportation problems for attending the self-care support groups at the PHC clinic.

Evidence in support of this guideline

Conclusion statements: 2, 7, 9, 10, 11, 12, 13, 14, 19, 21, 22, 37, 38, 42, 44, 45, 46, 49, 52, 59 and 64.

GUIDELINE 8

Implement self-care skills acquired in self-care support groups.

Implementation recommendations:

- Establish a rest, exercise and self-care programme, to ensure there is time to attend to the acquired self-care skills (see chapter 2 [2.3.1.3]);
- Ensure family and friends know the importance of self-care implementation;
- Encourage peers to continuously implement the acquired self-care skills;
- Establish short feedback sessions before / after actual time of self-care support groups to discuss experiences after implementation of the acquired self-care skills;
- Write positive experiences after implementation of acquired self-care skills in a diary. It could act as motivation for oneself and peers, to continue implementing acquired self-care skills; and
- Establish a “buddy system” where peers encourage each other to implement the acquired self-care skills.

Evidence in support of this guideline

Conclusion statements: 2, 4, 5, 6, 12, 13, 14, 19, 38, 39, 42 and 59.

GUIDELINE 9

Ensure the professional nurse facilitating the self-care support groups is informed about new self-care topics to be addressed.

Implementation recommendations:

- Inform professional nurses on self-care deficits and any other topics to be addressed in self-care support groups, by continuously keeping diary of experiences that could contribute to potential self-care topics;
- Use the “buddy system”, by discussing new topics to be addressed before attending the self-care support group; and
- Place a message box in the self-care support room, where any new topic could be inserted.

Evidence in support of this guideline

Conclusion statements: 2, 4, 5, 8, 9, 12, 13, 14, 37, 38, 39, 42, 43, 44, 45, 46, 48, 52 and 56

5.3 EVALUATION OF THE STUDY

The objectives of the study were reviewed in order to evaluate if the overarching aim of this study was reached. Firstly, an in-depth literature review was conducted to understand self-care and related constructs from a theoretical perspective. These constructs consisted of older person, self-care (consisting of the self-care agent, self-care agency, self-care deficit), self-care support groups, Dorothea Orem's theory of self-care deficit, economic factors, unintentional self-neglect, health promotion, empowerment, autonomy and lastly, quality of life. After analysing these main concepts, objective 1 was reached. In order to reach objective 2 of this study, the researcher assessed self-care (self-care is determined by measuring the self-care agency) by obtaining data with the help of the ASA-A and ESCA (based on Dorothea Orem's self-care deficit theory of nursing) of the older persons staying in the peri-urban area of the Potchefstroom district. Trained PURE-SA fieldworkers who knew the studied population assisted the older persons to complete the questionnaires. After data collection a statistician helped the researcher to analyse the data. Descriptive and inferential statistics were derived from the analysed data. The descriptive statistics enabled the researcher to identify self-care deficits in the studied population. After analysis and description of the self-care of the studied older persons the researcher reached objective 2. The conclusion after reaching objective 2 held that the studied older persons' self-care was affected by the following self-care deficits namely, lack of time management skills, sleep deprivation, decreased energy levels, lack of general knowledge regarding diseases and lack of a rest, exercise and self-care programme, and physical deterioration causing a self-care deficit. These self-care deficits, together with Menon's psychological health empowerment model and the literature review conducted on self-care and related constructs, assisted the development of guidelines to facilitate self-care amongst older persons in the Potchefstroom district, thereby reaching the overarching aim of this study.

Inferential statistics was used to reach objective 3 of this study, consisting of factor, mean and correlational analyses. After correlational analysis, the conclusion was that the ASA-A and ESCA correlation is very high, meaning that in future studies either one of the two questionnaires could be used when assessing self-care of the older persons. However, the

ESCA had a higher Cronbach's alpha than the ASA-A indicating a higher validity and reliability.

5.4 REFLECTION ON STUDY

The study aimed at educating the growing number of older persons to care for themselves. The older persons are not only affected by the rapid ageing process, but also by the South African health care system that don't see them as priority. As mentioned previously, ageing affects the physical body, causing an increased need for health care. Due to the long waiting periods in overcrowded clinics, the older persons are physically discomforted by lengthy waiting periods for basic health care. If self-care skills were taught to older persons they would be able to manage their basic self-care and therefore decrease clinic visits. Guidelines were developed to address these issues by educating the three main role players, namely the older person, professional nurse and public health sector in self-care.

The older persons are empowered by self-care knowledge since it enables them to make autonomous decisions regarding self-care (increasing quality of life, and in turn, decreasing visits to the PHC clinic). The professional nurse teaches the older persons self-care skills, which decreases the overcrowding of older persons at PHC clinics, the demand for health care as well as health care costs.

Not only were the above-mentioned role players empowered during this study, but this study was also a journey for the researcher in development on both a personal and professional level. Personally, the researcher developed in various areas of which the most important was time management, the reason for this being that work, personal and social life had to be balanced with educational life. Education could so easily have taken over, unbalancing the other three. On a professional level, the researcher developed in the field of research, as the researcher did not have any previous research experience. Data analysis, inductive and deductive reasoning were but a few new concepts the researcher learned. This professional development enabled the researcher to develop confidence and motivation in the field of research, which forms such an important part to increase quality health care in our country.

5.5 LIMITATIONS

A few shortcomings that were identified during this study are discussed below.

- The results of this study cannot be generalised to the larger older population of Potchefstroom as the population size was too small and only consisted of older persons who participated in the PURE-SA study.
- The PURE-SA study does not include all the older persons in the peri-urban population of the Potchefstroom district, thus the findings and guidelines of this study cannot be generalised to the whole peri-urban population staying in the Potchefstroom district. These guidelines could only be used as possible guide for the larger older population in the Potchefstroom district as well as other populations.
- The participants of this study were predominantly of a black Setswana ethnic group; therefore, the results could not be representative of other ethnic groups.

5.6 RECOMMENDATIONS

Recommendations are provided for practice, education and research.

5.6.1 Recommendations for practice

The implementation of these developed guidelines will assist the three main role players namely, public health sector, professional nurses and older persons in self-care of the older persons in the Potchefstroom district.

- By supporting these guidelines, the public health sector could decrease the demand on health care and health care costs, caused by older persons.
- By implementing these guidelines, the professional nurses in the PHC clinic is already understaffed, could decrease the number of older persons attending the PHC clinic for basic health care, because they will be empowered to care for self at a basic level.
- By implementing the learned self-care skills, the older persons will be empowered to make autonomous decisions regarding self-care and health, improving quality of life and decreasing the amount of time spent at the PHC clinic.

5.6.2 Recommendations for education

Much value could be brought to nursing education if these guidelines are implemented, which includes:

- Curriculum focusing on gerontology (with specific reference to self-care of older persons) in basic community nursing science and post basic community nursing as well as primary health care programmes.
- Health education in self-care support groups could help students to learn how to conduct proper health education.
- Students could develop good communication skills to effectively deal with older persons of different cultural groups, when facilitating self-care support groups.
- These guidelines could act as framework for nursing students doing research assignments in the community on the older persons by, for example, assessing self-care practices in different cultural groups.
- These guidelines could facilitate the student in conducting the nursing process by doing assessment, diagnoses, planning, implementation and evaluation of self-care deficits and self-care practices of older persons in different cultures when doing practical in the community.
- The application of guidelines to facilitate self-care amongst older persons (in this study older persons in the Potchefstroom district) will raise attention to students to understand the importance of caring for this fast-growing older population.

5.6.3 Recommendations for research

Based on the literature review, research findings and conclusions made from this research, it is evident that potential further research in the field of self-care of older persons is of utmost importance. The following recommendations are made for possible further studies:

- The effect of self-care support groups on self-care of the older person;
- Self-care practices of older persons in different cultures could be investigated and compared;

- The perceptions of professional nurses regarding the available support systems in the workplace when dealing with older persons;
- Exploring the level of commitment of the older persons in attendance of self-care support groups and the application of these acquired self-care skills; and
- Exploring the level of commitment of the professional nurse in the facilitation of self-care support groups.

5.7 CHAPTER SUMMARY

This chapter addressed the identified self-care deficits (based on Dorothea Orem's self-care deficit theory of nursing) by developing guidelines to facilitate self-care amongst older persons in the Potchefstroom district. These guidelines were developed for the main role player in this study, namely the public health sector, professional nurses and older persons, based on Menon's psychological health empowerment model and the literature review conducted on self-care and related constructs. Each of the guidelines was based on findings in literature, in the form of conclusion statements. Lastly, this study was brought to a close by discussing the limitations and recommendations for practice, education and future research based on self-care of the older person.

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APPRAISAL OF SELF-CARE AGENCY SCALE - A

Developed by: Evers, G.C.M, Isenberg, M.A., Phillipsen, H., Smeets H., and Brouns, G.
(Slight adaptations made for the South African Setswana-speaking older population)

	Disagree <i>Ga ke dumele gope</i>	Neither agree or disagree <i>Ga ke dumele mme ga ke ganele</i>	Agree <i>Ke a dumela</i>
1. If situations in my life change, I make the necessary changes to stay healthy. <i>Fa mabaka a mo bophelong jwa me a fetoga, ke dira dipheto go gore ke dule ke itekanetse</i>			
2. I rarely check if the measures I take to stay healthy are good enough. <i>Ga ke nke ke tlhomamisa gore dithulaganyo tse ke di dirang gore ke dule ke itekanetse, di siame go lekana tshwanelo.</i>			
3. If I have difficulty to move, I make the needed changes. <i>Fa ke na le mathata go tsamaya, ke dira dipheto go tse di tlhokegang</i>			
4. I make sure that my environment stays clean. <i>Ke tlhomamisa gore tikologo ya me e dula e le phepha.</i>			
5. When needed, I change my way of living to stay healthy. <i>Fa go tlhokega, ke fetola mokgwa wa me wa go phela gore ke dule ke itekanetse.</i>			

	Disagree Ga ke dumele gope	Neither agree or disagree Ga ke dumele mme ga ke ganele	Agree Ke a dumela
6. I often feel too tired to care for myself in the way I know I should. <i>Nako e ntsi ke ikutiwa ke lapile thata go ka itlhokomela jaaka ke itse ke tshwanetse go dira.</i>			
7. I look at better ways to care for myself. <i>Ke lala ke batla mekgwa e e botoka go itkhokomela.</i>			
8. To make sure I stay clean, I take a bath or shower more often, if necessary. <i>Go tlhomamisa gore ke dula ke le phepha, ke tlhapha kampo ke šhawara gantsi go feta tshwanelo.</i>			
9. I eat in a way that will keep my weight normal. <i>Ke ja ka mokgwa o o ka dirang gore boima jwa me bo dule bo le jwa tlwaelo.</i> <i>2^{de} Ke ja gore ke se ote kampo ke none go feta tshwanelo.</i>			
10. When needed, I can be alone. <i>Fa go tlhokega, ke kgona go itisa ke le nosi.</i>			
11. I often think about including a programme of exercise and rest in my daily routine, but never get around doing it. <i>Nako e ntsi ke akanya go tsenya porokerama ya go ikatisa le go ikhutsa mo letsatsing la me mme ga ke nke ke dira jalo.</i>			

	Disagree <i>Ga ke dumele gope</i>	Neither agree or disagree <i>Ga ke dumele mme ga ke ganele</i>	Agree <i>Ke a dumela</i>
12. I have a number of friends that will help me if needed. <i>Ke na le palo ya ditsala tse di ka nthusang fa go tlhokega.</i>			
13. I rarely get enough sleep to feel rested. <i>Nako e ntsi ga ke kgone go robala go lekana gore ke ikutlwe ke lapologile.</i>			
14. When I am informed about my health, I ask questions to understand what it means. <i>Fa ke tlhalosediswa ka ga boitekanelo jwa me, ke botsa dipotso gore ke tlhaloganye go feta.</i>			
15. I examine my body to see if there are any changes. <i>Ke na le go ikatlhola mmele gore ke lemoge fa go na le diphetogo.</i>			
16. If I take new medication, I ask about the negative effects of the medication. <i>Fa ke nwa melelo e mentšhwa, ke botsa ka ga ditiro tsa melemo tse di sa siamang.</i>			
17. In the past I have changed some of my old habits to make my health better (e.g. stopped drinking alcohol). <i>Mo nakong e e fetileng ke fetotse dilo tse ke neng ke di dira pele go tokafatsa boitekanelo jwa me(jk. go emisa go nwa bojalwa)</i>			
18. I take measures to ensure the safety of myself and my family. <i>Ke tsaya dikgato gore ke tlhomamisa</i>			

<i>polokego ya me le ya balosika ba me.</i>			
	Disagree <i>Ga ke dumele gope</i>	Neither agree or disagree <i>Ga ke dumele mme ga ke ganele</i>	Agree <i>Ke a dumela</i>
19. I make sure that the things I do to stay healthy will help. <i>Ke tlhomamisa gore dilo tse ke di dirang go dula ke itekanetse di tla thusa.</i>			
20. In my daily activities I seldom take time to care for my self. <i>Mo ditirong tsa me tsa letsatsi ga ke nke ke tsaya nako e ntsi gore ke itlhokomele.</i>			
21. When I feel my health is in danger, I can get information to help me. <i>Fa ke ikutlwa gore boitekanelo jwa me bo mo kotsing, ke ka amogela tshedimosetso go nthusa.</i>			
22. I seek help when unable to care for myself. <i>Ke batla thuso fa ke sa kgone go itlhokomela.</i>			
23. I seldom have time for myself. <i>Ga ke nke ke na le nako e ntsi e e leng nako ya me ke le nosi.</i>			
24. Because I can not move very well, I can not care for myself in the way I would like to. <i>Ka ke sa tlhole ke kgona go tsamaya sentle, ga ke tlhole ke kgona go itlhokomela jaaka ke ka rata.</i>			

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EXERCISE OF SELF-CARE AGENCY SCALE

Developed by: Kearney B.Y. and Fleischer, B.J.

(Slight adaptations made for the South African Setswana-speaking older population)

	Very characteristic Ke nna ka nnete	No opinion Ga ke re sepe	Very uncharacteristic Ga se nna ka nnete
1. I would gladly give up some of my set ways if it meant improving my health. <i>Ke ka fetola dilo tse ke di tlwaetseng thata fa go dira jalo go ka tokafatsa boitekanelo jwa me.</i>			
2. I like myself. <i>Ke a ithata.</i>			
3. I am often too tired to look after my health the way I would like to. <i>Nako e ntsi ke dula ke lapile thata go ka tlhokomela boitekanelo jwa me jaaka ke ka rata go dira.</i>			
4. When my health feels weak, I know where to ask help. <i>Fa ke utlwa boitekanelo jwa me bo le kwa tlase ke itse gore ke kope thuso kae.</i>			
5. I take pride in doing the things I need to, to stay healthy. <i>Ke kgatlhisiwa ke dilo tse ke tshwanetseng go di dira gore ke dule ke itekanetse.</i>			
6. I tend to neglect my personal needs. <i>Ke na le go se tlhokomele ditlhokego tsa me tsa sebele.</i>			

	Very characteristic Ke nna ka nnete	No opinion Ga ke re sepe	Very uncharacteristic Ga se nna ka nnete
7. I know my strong points. <i>Ke itse mathata a me gore ke afe.</i>			
8. I seek help when unable to care for myself. <i>Ke batlha thuso fa ke sa kgone go itlhokomela.</i>			
9. I enjoy starting new projects. <i>Ke rata thata go simolola ka diporojeke tse dintšhwa.</i>			
10. I often put off doing things that I know would be good for me. <i>Nako e ntsi ga ke dire dilo tse ke itseng gore di tla ntwela mosola.</i>			
11. I usually try home remedies that have worked in the past rather than going to see a doctor or nurse for help. <i>Nako e ntsi ke leka melemo ya mo gae kapa ya tlwaelo e e nthusitseng pele ga jaanong go na le gore ke ye kwa ngakeng kapa kwa mooking go bona thuso.</i>			
12. I make my own decisions. <i>Ke itseela dikakanyo ke le mongwe.</i>			
13. I perform certain activities to keep from getting sick. <i>Ke dira ditiro dingwe go tlhokomela gore ke se lwale.</i>			
14. I strive to better myself. <i>Ke dula ke leka gore ke itokafatse.</i>			

	Very characteristic Ke nna ka nnete	No opinion Ga ke re sepe	Very uncharacteristic Ga se nna ka nnete
15. I eat a balanced diet. <i>Ke ja dijo tse di siameng tse di lekalekanang.</i>			
16. I complain about things that bother me without doing much about them. <i>Ke rata go lela ka dilo tse di ntshwenyang mme ga ke dire sepe go di fetola.</i>			
17. I look for better ways to look after my health. <i>Ke dula ke batla mekgwa e e botoka go ka tlhokomela boitekanelo jwa me.</i>			
18. I think my health is very well. <i>Ke akanya gore boitekanelo jwa me bo siame thata.</i>			
19. When I have a problem, I want the nurse/doctor to tell me what to do. <i>Fa ke na le mathata, ke batla ngaka/mooki a mpolelele gore ke dire eng.</i>			
20. I deserve all the time and care it takes to maintain my health. <i>Ke tshwanelo gore ke nne le nako yotlhe le tlhokomelo yotlhe go tshegetsisa boitekanelo jwa me.</i>			
21. I do what I have decided to do. <i>Ke dira jaaka ke akantse go dira.</i>			

	Very characteristic Ke nna ka nnete	No opinion Ga ke re sepe	Very uncharacteristic Ga se nna ka nnete
22. I care to learn about my body and how it functions. <i>Ke na le kgatlhego ya go ka ithuta ka ga mmele wa me le go itse gore o dira jang.</i>			
23. I can only be good for others, if I am good to myself. <i>Ke ka dula ke siametse batho ba bangwe fa ke siame le nna.</i>			
24. I understand my body and how it functions. <i>Ke tlhaloganya mmele wa me le gore o dira jang.</i>			
25. I rarely carry out the resolutions I make concerning my health. <i>Ga ke arabele dikgato tse ke akanyang go di tsaya ka ga boitekanelo jwa me.</i>			
26. I am a good friend to myself. Nna ke tsala e kgolo ya me			
27. I take good care of myself. <i>Ke itlhokomela sentle thata.</i>			
28. I only try to promote my health when the opportunity arises. <i>Ke leka fela go tokafatsa boiekanelo jwa me fa go na le tšhono ya go ka dira jalo.</i>			
29. I have a planned program for rest and exercise. <i>Ke na le porokerama ya maano ya go ikhutsha le go ikatisa.</i>			

	Very characteristic Ke nna ka nnete	No opinion Ga ke re sepe	Very uncharacteristic Ga se nna ka nnete
30. I want to learn about diseases and how it influences me. <i>Ke ka rata go ithuta ka ga malwetsi le gore a nkama jang.</i>			
31. I enjoy life. <i>Ke ja bophelo monate</i>			
32. I contribute to my family's functioning. <i>Ke tsaya karolo mo ditirong tsa mo balosikeng ba me.</i>			
33. I take responsibility for my own actions. <i>Ke tsaya boikarabelo jwa ditiro tse ke di dirang.</i>			
34. I have little to give to others. <i>Ga ke na tse dintsi tse nka di fang batho ba bangwe.</i>			
35. I can usually tell that I am coming down with something days before I get sick. <i>Nako e ntsi ke kgona go utlwa gore ke tlile go lwala pele ke lwala.</i>			
36. Over the years I have noticed the things to do that make me feel better. <i>Mo dilemong tsa maitemogelo a me ke lemogile dilo tse di dirang gore ke ikutlwe ke tokafetse.</i>			
37. I know what foods to eat and keep me healthy. <i>Ke itse gore ke je dijo dife gore di tokafatse boitekanelo jwa me.</i>			

	Very characteristic Ke nna ka nnete	No opinion Ga ke re sepe	Very uncharacteristic Ga se nna ka nnete
38. I want to learn all that I can about my body and how it functions. <i>Ke ka rata go ithuta gotlhe ka ga mmele wa me le gore e dira jang.</i>			
39. Sometimes when I feel sick I ignore the feeling and hope it goes away. <i>Nako e nngwe fa ke lwala ke leka go se ele tlhoko bolwetsi mme ke solofela gore bo ka tloga gape mo go nna.</i>			
40. I seek information to care for myself. <i>Ke dula ke batla tshedimosetso ya go ka itlhokomela.</i>			
41. I feel I am a valuable member of my family. <i>Ke ikutiwa ke le mongwe yo o nang le mosola ka mo balosikeng ba me.</i>			
42. I remember when I had my last health check and return on time for my next one. <i>Ga ke lebale nako e ke neng ke ile ngakeng go atlholwa boitekanelo mme ga ke lebale gore ke nako efe e ke tshwanetseng go ya gape ka yone.</i>			
43. I understand myself and my needs pretty well. <i>Ke tlhaloganya mmele wa me le ditlhokego tsa me sentle thata.</i>			

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NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOMKAMPUS

BACKGROUND INFORMATION AND PARTICIPATION DECLARATION

9 March 2009

Dear Mr/Mrs/Ms,

I am currently in the process of studying my Master's degree in Nursing at the North-West University, Potchefstroom Campus. For this study I need to gather data through a questionnaire.

The title of the research is:

Self-care of older persons in the Potchefstroom district

The purpose of the study is to:

- Conduct a literature review to understand self-care and related constructs from a theoretical perspective;
- Assess the self-care of the older person living in the Potchefstroom district;
- Correlate the Appraisal of self-care agency scale - A (ASA-A) and the Exercise of self-care agency scale (ESCA);
- Develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district.

The research will be conducted during March 2009. The trained fieldworker will complete two scales by asking you a question and marking your preferred answer next to the question. The filling of the questionnaire will take approximately half an hour. If at any stage you feel uncertain about the meaning of a question, you are welcome to ask the fieldworker to clarify the question for you. Participation is voluntary and all information gathered will be treated confidential. You are kindly requested to complete the declaration form.

Thank you very much for your participation.

Yours sincerely,



Me. T. Rabie

M.CUR student



Prof. H.C. Klopper

Supervisor

DECLARATION OF PARTICIPATION

I _____
hereby give consent to participate in research study conducted by Tinda Rable, I declare that I voluntarily decided to participated and was not placed under any obligation to take part. I understand that the information given to the fieldworker will be treated confidential and only the fieldworker, researcher, study leader/s, and myself will have access to the data. I acknowledge that I can stop the answering the questionnaires at any time, without any discrimination against me.

Signed at _____ on this
_____ day of _____ 2009.



North West Province

NORTH WEST DEPARTMENT OF HEALTH

Healthy Living for All



Republic of South Africa

3rd Floor Tirelo Building
Dr Albert Luthuli Drive
Mafikeng, 2745
Private Bag X2088
MMABATHO, 2735

OFFICE OF THE DDG

Eng: K. Mangonyane
Tel: (018) 387 5835/6
Tel: (018) 387 5816
cat@nwdo.org.za
www.nwhealth.gov.za

Fax: (018) 387 5709

29 August 2005

Dr A Kruger
North West University, Potchefstroom Campus
North West Province

SUBJECT: Approval for Research- Prospective Urban and Rural Epidemiological Study

Approval is granted to conduct the above study in the North West Province, kindly make relevant arrangements with the management for suitable dates and times. Detail at the bottom of this letter has to be completed by you and returned to the Knowledge Management Directorate before your study may commence.

Regards

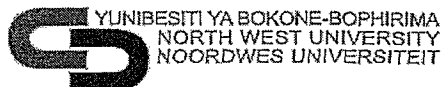
O. Mongale
NWDOH Head of Department

KMx

Page 1
1

29/08/2005





Dr A Kruger
Bussie 594
Noordwes-Universiteit
(Potchefstroomkampus)

Etiëkkomitee
Tel (018) 299 2558
Faks (018) 297 5308
E-Pos dnvealr@puk.ac.za

2 September 2004

Geagte dr Kruger

GOEDKEURING VIR EKSPERIMENTERING MET MENSE

Hiermee wens ek u in kennis te stel dat u projek getiteld "*PURE study (Prospective Urban and Rural Epidemiology study)*" deur die Etiëkkomitee goedgekeur is met nommer 04M10.

Gebruik asseblief die nommer genoem in paragraaf 1 in alle korrespondensie rakende bogenoemde projek en let daarop dat daar van projekteleers verwag word om jaarliks in Junie aan die Etiëkkomitee verslag te doen insake etiese aspekte van hulle projekte asook van publikasies wat daaruit voortgespruit het. U sal in Mei 2005 die dokumentasie hieroor ontvang.

Goedkeuring van die Etiëkkomitee is vir 'n termyn van hoogstens 5 jaar geldig (volgens Senaatsbesluit van 4 November 1992, art 9.13.2). Vir die voortsetting van projekte na verstryking van hierdie tydperk moet opnuut goedkeuring verkry word.

Die Etiëkkomitee wens u alle voorspoed met u werk toe.

Vriendelike groete

PROF. NT MALAN
VOORSITTER: ETIEKKOMITEE



POTCHEFSTROOMKAMPUS
Privaatsak X6001, Potchefstroom, Suid-Afrika, 2520
Tel: (018) 299-1111 • Faks: (018) 299-2799
Internet: <http://www.nwu.ac.za>





BACKGROUND INFORMATION AND FIELDWORKER DECLARATION

9 March 2009

Dear Mr/Mrs/Ms,

I am currently in the process of studying my Master's degree in Nursing at the North-West University, Potchefstroom Campus. For this study I need to gather data through a questionnaire.

The title of the research is:

Self-care of older persons in the Potchefstroom district

The purpose of the study is to:

- Conduct a literature review to understand self-care and related constructs from a theoretical perspective;
- Assess the self-care of the older person living in the Potchefstroom district;
- Correlate the Appraisal of self-care agency scale - A (ASA-A) and the Exercise of self-care agency scale (ESCA);
- Develop guidelines to facilitate self-care amongst older persons in the Potchefstroom district.

For this research study, questionnaires will be used to determine the self-care agency of the older persons in the Potchefstroom district.

This study falls under the PURE-SA study and permission was granted from the Department of Health of North-West Province, mayor and ward councillors as well as the ethical committee of North-West University (Potchefstroom Campus), approval number 04M10.

Your role as fieldworker will be to:

- visit all the older persons identified by the PURE-SA study and complete the questionnaires, by asking the question to the participant and marking the answer next to the question.
- obtain written consent from the participants.
- explain and clarify the questions that the older person does not understand.

The fieldworkers must attend a training session before commencement of the data collection in order to be fully informed on the course of the research as well as understand the fieldworkers' role and tasks.

I therefore appreciate your willingness to help me in conducting this research. Should you have any questions or enquiries please feel free to contact me at any time, as the correct completion of these scales will have an effect on the truthfulness of the research.

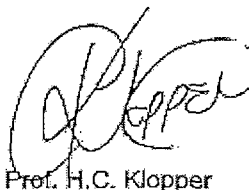
083 266 7979 (c)

018-299 1719 (w)

Kind regards,



Tinda Rabie
M.CUR student



Prof. H.C. Klopper
Supervisor

DECLARATION OF FIELDWORKER

I _____
hereby give my voluntary consent to Tinda Rabie, to participate as fieldworker in the
research on self-care of older persons in the Potchefstroom district. I declare that I will do
my utmost best to fill the questionnaires correctly.

Signed at _____ on this

_____ day of _____ 2009.

LETTER TO DEVELOPERS ASKING PERMISSION TO USE ASA-A



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
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School of Nursing Science
Tel: (018) 018 - 299 1719
Fax (018) 018 - 299 1827
EMail Tinda.Rabie@nwu.ac.za

Prof. G. Brouns
Maastricht University
P.O. Box 616
6200 MD
Maastricht
The Netherlands

24 February 2009

Dear Prof. Brouns,

APPROVAL TO USE THE APPRAISAL OF SELF-CARE AGENCY SCALE

I am currently enrolled as a Master's degree student at North-West University (Potchefstroom Campus) North-West Province, South Africa.

My study is about Self-care of the older person in the Potchefstroom district. During my literature review I noticed that the Appraisal of Self-care Agency Scale is used in a lot of studies to measure self-care.

I also noticed that you are one of the developers of the questionnaires; therefore I kindly request approval from you to use the scale for research purposes in my study.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'Tinda Rabie'.

Ms. T. Rabie
Lecturer: Clinical Nursing Science, Health Assessment, Treatment and Care (PHC) and Community Nursing Science

TINDA.RABIE@NWU.AC.ZA c:\documents and settings\administrator\desktop\approval to use exercise of self.doc

CONSENT FROM DEVELOPERS TO USE ASA-A

Dear Prof. Brouns,

I am currently enrolled as a Masters degree student at North-West University (Potchefstroom Campus) North-West Province, South Africa.

My study is about the self-care agency of older persons in the Potchefstroom Community.

I kindly ask permission to use your Appraisal for self-care agency scale for research purposes only, please see attached letter.

Kind regards,

Tinda Rabie

Tinda Rabie

Lecturer: Clinical Nursing Science, Health Assessment, Treatment and Care (PHC) and Community Nursing Science

School of Nursing Science

North-West University, Potchefstroom Campus

Tel: 018 299 1719

Fax: 018 - 299 1827

E-mail: Tinda.Rabie@nwu.ac.za

Dear miss Rabie,

Sorry for responding rather late. I was abroad, so....

It is all right for me if you use the ASA-scale. I get the idea that you already have a copy of the scale. Is that correct? If not, there might be a problem. I do not have the English version of the scale. I only have the Dutch version.

I you have an English version, would you please be so kind as to mail it to me?

Kind regards,

Ger Brouns

-----Original Message-----

From: Tinda Rabie [<mailto:Tinda.Rabie@nwu.ac.za>]

Sent: woensdag 25 februarie 2009 13:07

To: Brouns G (ZW)

Subject: Appraisal of self-care agency scale

Dear Prof. Brouns

Thank you very much for your permission to use the scale. I do have the original English version, see attachment. The questionnaire was slightly revised by myself and the statistician and will be translated into Setswana because the population studied is Setswana speaking. I spoke to our Statistical Consultation Service and the statistician kindly request that you also send me the scoring instructions for the test.

Regards,

Tinda

-----Original Message-----

From: Tinda Rabie [mailto:Tinda.Rabie@nwu.ac.za]

Sent: dinsdag 17 maart 2009 10:18

To: Brouns G (ZW)

Cc: Suria Ellis

Subject: ASA scale

Dear Tinda Rabie,

Enclosed please find the scale with some corrections I added. I would like you to include them in the form you are going to use. I feel that the correct name of the scale should be mentioned, as well as the name of the authors and the fact that it is the revised version of 1988.

About the scoring:

The theoretical range of scores is from 24 to 120. Higher scores indicate more operable self-care agency. 15 items are positive statements and 9 are negative statements. The weighting scheme has to be reversed for the negative statements. Individual items are combined into an unweighted summative score.

There is an informative article:

Evers, G.C.M., Isenberg, M.A., Philipsen, H., Senten, M. & Brouns G. (1993). Validity testing of the Dutch translation of the appraisal of self-care agency ASA-scale. *International Journal of Nursing studies*, 30(4)331-342. Wishing you good luck with the research,

Kind regards,

Ger Brouns

APPRAISAL OF SELF-CARE AGENCY SCALE

Developed by: Brouns, Evers, Smeets, Isenberg, Philipsen

A.S.A. form A (self-appraisal)

Directions

A list of statements which people have used to describe themselves is given below. Please read each statement and then circle the appropriate number to the right of the statement to indicate how much you agree or disagree with the statement as a description of you. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to be most descriptive of you.

	Totally Disagree 1	Disagree 2	Neither disagree nor agree 3	Agree 4	Totally agree 5
1. As circumstances change, I make the needed adjustments to stay healthy.					
2. I rarely check whether the measures I take to stay healthy are adequate.					
3. If my mobility is decreased, I make the needed adjustments.					
4. I take measures to maintain sanitary conditions in my environment.					
5. When needed, I set new priorities in the measures that I take to stay healthy.					
6. I often lack the energy to care for myself in the way that I know I should.					
7. I look for better ways to care for myself.					
8. To maintain my hygiene, I adjust the frequency of bathing and showering to the circumstances.					
9. I eat in a way that maintains my body weight at an appropriate level.					
10. When needed, I manage to be by myself.					
11. I often think about including a program of exercise and rest in my daily routine, but never get around to doing it.					
12. Over the years I have developed a circle of friends that I can call upon when I need help.					
13. I rarely get enough sleep to feel rested.					
14. When receiving information regarding my health, I seldom ask for clarification of language that I don't understand.					
15. I seldom examine my body to determine the presence of any changes.					
16. If I take a new medication, I obtain information about the side-effects.					
17. In the past I have changed some of my old habits in order to improve my health.					
18. I routinely take measures to insure the safety of myself and my family.					

	Totally Disagree 1	Disagree 2	Neither disagree nor agree 3	Agree 4	Totally agree 5
19. I regularly evaluate the effectiveness of things that I do to stay healthy.					
20. In my daily activities I seldom take time to care for my self.					
21. I am able to get the information I need, when my health is threatened.					
22. I seek help when unable to care for myself.					
23. I seldom have time for myself.					
24. Due to limited mobility, I am not always able to care for myself in a way I would like.					

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-----Original Message-----

From: Tinda Rabie [mailto:Tinda.Rabie@nwu.ac.za]

Sent: dinsdag 17 maart 2009 10:18

To: Brouns G (ZW)

Cc: Suria Ellis

Subject: ASA scale

Dear Prof. Brouns,

I spoke to my statistician about the scoring and she asked me to kindly find out from you, which items are negative on the scale. Sorry for bothering so much ... but I want to make sure the scale is implemented and interpreted correctly.

Kind regards,

Tinda

-----Original Message-----

From: Tinda Rabie [mailto:Tinda.Rabie@nwu.ac.za]

Sent: woensdag 18 maart 2009 8:36

To: Brouns G (ZW)

Cc: Suria Ellis

Subject: ASA scale

The negative items are the items 2,6,11,13,14,15,20,23 and 24.

Ger Brouns

-----Original Message-----

From: Tinda Rabie [mailto:Tinda.Rabie@nwu.ac.za]

Sent: woensdag 18 maart 2009 8:36

To: Brouns G (ZW)

Cc: Suria Ellis

Subject: ASA scale

LETTER TO DEVELOPERS ASKING PERMISSION TO USE ESCA



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: (018) 299-1111/2222
Web: <http://www.nwu.ac.za>

School of Nursing Science
Tel: (018) 018 - 299 1719
Fax (018) 018 - 299 1827
EMail: Tinda.Rabie@nwu.ac.za

Ms. B.Y. Kearney
Louisiana State University
New Orleans

26 February 2009

Dear Ms. Kearney,

APPROVAL TO USE EXERCISE OF SELF-CARE AGENCY SCALE

I am currently enrolled as a Master's degree student at North-West University (Potchefstroom Campus) North-West Province, South Africa.

My study is about Self-care of the older person in the Potchefstroom district. During my literature review I noticed that the Exercise of Self-care Agency Scale is used in a lot of studies to measure self-care.

I also noticed that you are one of the developers of the questionnaires; therefore I kindly request approval from you to use the scale for research purposes in my study.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'Tinda Rabie'.

Ms. T. Rabie
Lecturer: Clinical Nursing Science, Health Assessment, Treatment and Care (PHC) and Community Nursing Science

TINDA.RABIE@NWU.AC.ZA c:\documents and settings\administrator\desktop\approval to use exercise of self.doc

CONSENT FROM DEVELOPERS TO USE ESCA

Dear Ms. Linda Cornelius,

I would kindly like to enquire where I can help me find Mrs. BY. Kearney, I have been e-mailing her on the e-mail address: bkearn@lsuhsc.edu, but unfortunately it seems that she does not receive the message, because it stays unopened.

I am currently a Masters degree student at North-West University, Potchefstroom Campus in South Africa and would like to ask permission from Ms. Kearney (one of the developers) to use the Exercise of self-care agency scale in my study. According to information I received from the internet she is working at Louisiana State University, Medical Centre, New Orleans.

Can you kindly help me.

Regards,

Tinda Rabie

Tinda Rabie

Lecturer: Clinical Nursing Science, Health Assessment, Treatment and
Care (PHC) and Community Nursing Science
School of Nursing Science
North-West University, Potchefstroom Campus
Tel: 018 299 1719
Fax: 018 - 299 1827
E-mail: Tinda.Rabie@nwu.ac.za

-----Original Message-----

From: Tinda Rabie [<mailto:Tinda.Rabie@nwu.ac.za>]

Sent: Tuesday, April 21, 2009 8:04 AM

To: Cornelius, Linda

Subject: Enquiry

Dear Ms. Rabie

You have my permission to use the ESCA Scale. Attached is a copy of the tool and directions for scoring. Please share your results with me.

Sincerely,

Barbara Y. Kearney, MS, MEd, RN

-----Original Message-----

From: Cornelius, Linda

Sent: Tuesday, April 21, 2009 8:45 AM

To: Kearney, Barbara

Subject: FW: Enquiry

Linda Cornelius

Office of Student Affairs - Nursing

Office: 568-4197

ESCA Scale

Scoring Instructions

To score the ESCA Scale points are assigned as follows:

1. All positively worded items are scored:

Answer A = 4 points

Answer B = 3 points

Answer C = 2 points

Answer D = 1 point

Answer F = 0 point

2. All negatively worded items are scored:

Answer A = 0 points

Answer B = 1 points

Answer C = 2 points

Answer D = 3 point

Answer F = 4 point

Negatively worded items are numbers 3, 6, 10, 16, 22, 25, 28, 32, 34, and 39.

3. Total all points.

4. Refer to Table 4 in the article by Kearney, B.Y. & Fleischer, B. J. (1979). Development of an instrument to measure exercise of self-care agency. Research in Nursing and Health, 2(1), 25-34 for groups' means and standard deviation.

Directions

This is not a test with right or wrong answers. It is an instrument that helps you assess yourself in terms of degrees in which you take care of your health needs. You will be given a statement, followed by five possible choices. Blacken the letter box on the answer sheet which best describes you from letter A (very characteristic) through letter E (very uncharacteristic), as follows:

A	B	C	D	E
very	somewhat	no	somewhat	very
characteristic	characteristic	opinion	uncharacteristic	uncharacteristic

1. I would gladly give up some of my set ways if it meant improving my health.
2. I like myself.
3. I often feel that I lack the energy to care of my health needs the way I would like to.
4. I know how to get the facts I need when my health feels weakened.
5. I take pride in doing the things I need to do in order to remain healthy.
6. I tend to neglect my personal needs.
7. I know my strong points.
8. I seek help when unable to care for myself.
9. I enjoy starting new projects.
10. I often put off doing things that I know are good for me.
11. I usually try home remedies that have worked for me in the past rather than going to see a doctor or nurse.
12. I make my own decisions.
13. I perform certain activities to keep me from getting sick.
14. I strive to better myself.
15. I eat balanced meals.
16. I complain a lot about the things that bother me without doing much about them.
17. I look for better ways to look after my health.
18. I expect to reach peak wellness.
19. When I have a problem, I usually want an expert to tell me what to do.
20. I deserve all the time and care it takes to maintain my health.
21. I follow through on my decisions.
22. I have no interest in learning about my body and how it functions.
23. If I am not good to myself, I believe I can not be good for anyone else.
24. I understand my body and how it functions.
25. I rarely carry out the resolutions I make concerning my health.
26. I am a good friend to myself.
27. I take good care of myself.
28. Health promotion is a chance thing for me.
29. I have a planned program for rest and exercise.
30. I am interested in learning about various disease processes and how they affect me.
31. Life is a joy.
32. I do not contribute to my family's functioning.

- 33. I take responsibility for my own actions.
- 34. I have little to contribute to my family's functioning.
- 35. I can usually tell that I am coming down with something days before I get sick.
- 36. Over the years I have noticed the things to do that make me feel better.
- 37. I know what foods to eat and keep me healthy.
- 38. I am interested in learning all that I can about my body and the way it functions.
- 39. Sometimes when I feel sick I ignore the feeling and hope it goes away.
- 40. I seek information to care for myself.
- 41. I feel I am a valuable member of my family.
- 42. I remember when I had my last health check and return on time for my next.
- 43. I understand myself and my needs pretty well.